

# **KEY INDICATORS**

## for Asia and the Pacific

# **2012**

43rd Edition

The background image depicts a futuristic cityscape with a mix of modern skyscrapers and green architecture. In the foreground, a diverse group of people is walking along a paved path that runs through a lush green field. The sky is bright blue with a few birds flying. The overall scene conveys a message of sustainable and green urban development.

**SPECIAL CHAPTER:**  
**Green Urbanization in Asia**

Asian Development Bank

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The background image shows a group of people walking on a path through a lush green field towards a modern city skyline. The skyline includes several tall skyscrapers and a prominent building with a curved facade. The sky is bright and clear, with a few birds flying. The overall scene conveys a sense of sustainable urban development and green living.

**SPECIAL CHAPTER:**  
**Green Urbanization in Asia**

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## Foreword

The 43<sup>rd</sup> edition, the *Key Indicators for Asia and the Pacific 2012 (Key Indicators 2012)* continues to provide a set of comprehensive social, economic, financial, environmental, and Millennium Development Goals (MDGs) indicator series for the 48 regional members. The *Key Indicators* provides a timely and reliable source of data and information for policy makers, development practitioners, government officials, researchers, students, and the general public. For the second year, the *Framework of Inclusive Growth Indicators* supplements the main *Key Indicators* publication.

The special chapter on “Green Urbanization in Asia” tackles two growing concerns—environmental sustainability and rapid urbanization. Asia is home to almost half of the global urban population and is urbanizing at a pace faster than any other region, resulting in an unprecedented growth in urban residents and an increased number of densely populated megacities. Consequently, the region will be confronted with even greater environmental challenges that are already serious, including air pollution, congestion, carbon dioxide emission, deprivation of water and basic sanitation, and growing vulnerability to natural disasters. But with urbanization comes the rise of the middle class and property owners, the development of the service sector, declining fertility, increased educational attainment, and innovations in green technology. These urbanization-related forces and mechanism are important for attaining a win-win scenario of environmental improvement and economic growth. However, because these forces may be insufficient to reach environmental sustainability, carefully considered policy making and effective management are essential. Thus, the chapter also provides suggestions for government intervention to ensure a green urbanization path in the region.

The statistical tables and analysis presented in the *Key Indicators 2012* clearly describes Asia and the Pacific region’s progress as it continues its economic recovery, cementing its claim to the largest share of the world’s gross domestic product. The region now contributes more than a third to the world’s total exports. Three years before the MDG deadline in 2015, the region reduced hunger and extreme poverty. It is also expected to meet its targets for education and gender. The region has successfully reduced its slum population and it has increased its terrestrial and marine protected areas.

There are still growing concerns, however. Asia and the Pacific needs to address environmental issues, particularly the continued reduction in forest cover and increasing CO<sub>2</sub> emissions, to attain environmental sustainability. Most electricity is still generated using carbon fuels. Because of the rising food prices compared to the general inflation, more people are put at risk of falling into extreme poverty, putting the gains that the region has achieved in poverty reduction in peril. Moreover, MDG targets on reducing child and maternal mortalities are not expected to be met by many developing Asian countries, although some have achieved substantial progress.

Despite the region’s remarkable success, challenges remain, as new concerns emerge. It is our hope that the *Key Indicators* series will continue to address these development issues and strive to provide sound and comprehensive data that can be accessed widely. Meanwhile, ADB continues to work with our developing members’ national statistical systems to improve the coverage and quality of their official statistics that form a substantial part of the statistical tables presented in this publication.



Haruhiko Kuroda  
President



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## Statistical Partners

The preparation and publication of *Key Indicators for Asia and the Pacific 2012* would not have been possible without the support, assistance, and cooperation of the partners in the regional members of the Asian Development Bank (ADB) and in international, private, and nongovernment organizations. These partners, who shared their data, knowledge, expertise, and other information, help provide ADB, policy makers, and other data users a better understanding of the performance of countries around Asia and the Pacific region, so that better policies can be formulated to improve the quality of life of people around the region.

### REGIONAL MEMBERS

Afghanistan	Central Statistics Organization Da Afghanistan Bank
Armenia	Central Bank of Armenia National Statistical Service of the Republic of Armenia
Australia	Australian Bureau of Agricultural and Resource Economics and Sciences Australian Bureau of Statistics Bureau of Resources and Energy Economics Reserve Bank of Australia
Azerbaijan	Central Bank of the Republic of Azerbaijan State Statistical Committee of the Republic of Azerbaijan
Bangladesh	Bangladesh Bank Bangladesh Bureau of Statistics Ministry of Finance
Bhutan	Ministry of Finance Ministry of Labor and Human Resources National Statistics Bureau Royal Monetary Authority of Bhutan
Brunei Darussalam	Department of Statistics Ministry of Finance
Cambodia	Ministry of Economy and Finance National Bank of Cambodia National Institute of Statistics
China, People's Republic of	National Bureau of Statistics People's Bank of China State Administration of Foreign Exchange
Cook Islands	Cook Islands Statistics Office Ministry of Finance and Economic Management
Fiji	Bureau of Statistics Reserve Bank of Fiji

Georgia	Ministry of Finance of Georgia National Bank of Georgia National Statistics Office
Hong Kong, China	Census and Statistics Department Hong Kong Monetary Authority
India	Central Statistical Organization Ministry of Finance Reserve Bank of India
Indonesia	Bank Indonesia Badan Pusat Statistik-Statistics Indonesia (formerly Central Bureau of Statistics) Ministry of Energy and Mineral Resources PT Pertamina (Persero)
Japan	Bank of Japan Economic and Social Research Institute Japan Statistics Bureau Ministry of Agriculture, Forestry and Fisheries Ministry of Economy, Trade and Industry Ministry of Finance
Kazakhstan	Agency of Statistics of the Republic of Kazakhstan National Bank of Kazakhstan
Kiribati	Kiribati National Statistics Office National Economic Planning Office
Korea, Republic of	Bank of Korea Ministry of Strategy and Finance Statistics Korea
Kyrgyz Republic	National Bank of the Kyrgyz Republic National Statistical Committee of the Kyrgyz Republic
Lao People's Democratic Republic	Bank of the Lao PDR Lao Statistics Bureau (formerly Department of Statistics) Ministry of Finance
Malaysia	Bank Negara Malaysia Department of Statistics Ministry of Finance
Maldives	Department of National Planning Maldives Monetary Authority Ministry of Finance and Treasury
Marshall Islands, Republic of	Economic Policy, Planning and Statistics Office
Micronesia, Federated States of	Office of Statistics, Budget and Economic Management, Overseas Development Assistance and Compact Management
Mongolia	Bank of Mongolia National Statistical Office of Mongolia

Myanmar	Central Statistical Organization Ministry of National Planning and Economic Development
Nauru	Ministry of Finance and Economic Planning Nauru Bureau of Statistics
Nepal	Central Bureau of Statistics Ministry of Finance Nepal Rastra Bank
New Zealand	Ministry of Economic Development Reserve Bank of New Zealand Statistics New Zealand
Pakistan	Ministry of Economic Affairs and Statistics Ministry of Finance Pakistan Bureau of Statistics (formerly Federal Bureau of Statistics) State Bank of Pakistan
Palau	Bureau of Budget and Planning, Ministry of Finance
Papua New Guinea	Bank of Papua New Guinea Department of Treasury National Statistical Office
Philippines	Bangko Sentral ng Pilipinas Bureau of Local Government Finance Bureau of the Treasury Department of Budget and Management Department of Energy National Statistical Coordination Board National Statistics Office
Samoa	Bureau of Statistics Central Bank of Samoa Economic Policy and Planning Division, Ministry of Finance
Singapore	Economic Development Board International Enterprise Singapore Ministry of Finance Ministry of Manpower Monetary Authority of Singapore Singapore Department of Statistics
Solomon Islands	Central Bank of Solomon Islands Statistics Office
Sri Lanka	Central Bank of Sri Lanka Department of Census and Statistics
Taipei, China	Central Bank of China Council for Economic Planning and Development Directorate-General of Budget, Accounting and Statistics

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	Ministry of Education Ministry of Finance
Tajikistan	National Bank of Tajikistan Agency on Statistics under President of the Republic of Tajikistan (Tajstat)
Thailand	Bank of Thailand Ministry of Finance National Economic and Social Development Board National Statistical Office
Timor-Leste	Central Bank of Timor-Leste (formerly Banking and Payments Authority of Timor-Leste) Ministry of Finance National Statistics Directorate
Tonga	Ministry of Finance and National Planning National Reserve Bank of Tonga Statistics Department
Turkmenistan	National Institute of State Statistics and Information (Turkmenmillihasabat)
Tuvalu	Central Statistics Division, Ministry of Finance and Economic Planning
Uzbekistan	Cabinet of Ministers, Government of Uzbekistan Central Bank of Uzbekistan Ministry of Finance of the Republic of Uzbekistan State Committee on the Republic of Uzbekistan on Statistics
Vanuatu	Department of Finance and Treasury (formerly Ministry of Finance and Economic Management) Reserve Bank of Vanuatu Vanuatu National Statistics Office
Viet Nam	General Statistics Office Ministry of Finance State Bank of Viet Nam

**INTERNATIONAL, PRIVATE, AND NONGOVERNMENT ORGANIZATIONS**

Asia Pacific Energy Research Center  
Association of Southeast Asian Nations  
Carbon Dioxide Information Analysis Center  
CEIC Data Company Ltd.  
European Bank for Reconstruction and Development  
Food and Agriculture Organization  
ICF International (formerly ICF Macro)  
International Development Association  
International Energy Agency  
International Labour Organization  
International Monetary Fund  
International Road Federation  
International Telecommunication Union  
Organisation for Economic Co-operation and Development  
Pacific and Virgin Islands Training Initiatives, Graduate School USA  
Secretariat of the Pacific Community  
Transparency International  
UNESCO Institute for Statistics  
United Nations Children's Fund  
United Nations Department of Economic and Social Affairs  
United Nations Development Programme  
United Nations Economic Commission for Europe  
United Nations Economic and Social Commission for Asia and the Pacific  
United Nations Educational, Scientific and Cultural Organization  
United Nations Environment Program  
United Nations Human Settlements Programme  
United Nations International Strategy for Disaster Reduction Secretariat  
United Nations Office on Drugs and Crime  
United Nations Population Division  
United Nations Statistics Division  
United Nations World Tourism Organization  
United States Census Bureau  
World Bank  
World Health Organization  
WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation

## Guide for Users

The *Key Indicators for Asia and the Pacific 2012 (Key Indicators 2012)* has the following structure. The Highlights section presents key messages from various parts of the publication. Part I contains a special chapter that varies every year and deals with a topic on key policy issues, measurement issues, or development challenges. This year's special chapter discusses the environmental challenges and opportunities associated with urbanization in Asia.

Part II comprises tables on indicators for the Millennium Development Goals (MDGs). The indicators are presented according to the United Nations revised MDG framework, which was expanded in January 2008 to include new targets for full and productive employment and decent work for all, access to reproductive health, access to treatment for HIV/AIDS, and protection of biodiversity, as agreed on by member states at the 2005 World Summit. This year's *Key Indicators 2012* includes as many of the indicators for the new targets as possible. The tables contain indicators associated with each MDG target.

Part III consists of 112 regional trends and tables grouped into seven themes: People; Economy and Output; Money, Finance, and Prices; Globalization; Transport, Electricity, and Communications; Energy and Environment; and Government and Governance. Each theme is further divided into subtopics. The tables contain indicators related to a subtopic.

The MDGs and themes in Parts II and III start with a brief analysis of key trends of selected indicators. The accompanying statistical tables are presented for 48 economies of Asia and the Pacific that are members of the Asian Development Bank (ADB). The term "country," used interchangeably with "economy," is not intended to make any judgment as to the legal or other status of any territory or area. The 48 economies have been broadly grouped into developing and developed members aligned with the operational effectiveness of ADB's regional departments. The latter refer exclusively to Australia, Japan, and New Zealand. Brunei Darussalam is a regional member of ADB that is not classified as a developing member; however, the data for Brunei Darussalam are presented under the group of developing members. The remaining 44 developing members and Brunei Darussalam are further grouped into five based on ADB's operational regions—Central and West Asia, East Asia, South Asia, Southeast Asia, and the Pacific. Economies are listed alphabetically in each group. The term "regional members" used in some tables refers to all 48 regional members of ADB, both developing and developed. Indicators are shown for the most recent year or period for which data are available and, in most tables, for an earlier year or period (usually 1990 or 1995).

Finally, Part IV defines the indicators in the MDGs and regional trends and tables. The four parts and the individual statistical tables of the 48 regional members are also available on ADB's website at [www.adb.org/key-indicators/2012](http://www.adb.org/key-indicators/2012).

Data for the MDG indicators, regional trends and tables, and country tables are obtained mainly from two sources: ADB's statistical partners among its regional members, and international statistical agencies. Data obtained from the regional members are comparable to the extent that the regional members follow standard statistical concepts, definitions, and estimation methods recommended by the United Nations and other applicable international agencies. Nevertheless, regional members invariably develop and use their own concepts, definitions, and estimation methodologies to suit their individual circumstances, and these may not necessarily comply with recommended international standards. Thus, even though attempts were made to present the data in a comparable and uniform format, they are subject to variations in the statistical methods used by regional members, so that full comparability of data may not be possible. These variations are reflected in the footnotes of the statistical tables or noted in the Data Issues and Comparability sections. Moreover, the aggregates for developing and regional members shown in some tables are treated as approximations of the actual total or average, or growth rates, due to missing data from the primary source. No attempt has been made to impute the missing data.

## Fiscal Year

The data cutoff date for this issue is **July 2012**.

Twenty-four regional members have varying fiscal years not corresponding to the calendar year. Whenever the statistical series (for example, national accounts or government finance) are compiled on a fiscal year basis, these are presented under single-year captions corresponding to the period under which most of the fiscal year falls, as follows:

Regional Members	Fiscal Year	Year Caption
Afghanistan	21 March 2011–20 March 2012	2011
Cook Islands (after 1990)	1 July 2010–30 June 2011	2011
Brunei Darussalam (after 2002)	1 April 2011–31 March 2012	2011
Hong Kong, China		
India		
Japan		
Myanmar		
New Zealand		
Singapore		
Indonesia (until 1999)	1 April 1999–31 March 2000	1999
Australia	1 July 2010–30 June 2011	2011
Bangladesh		
Bhutan		
Nauru		
Pakistan		
Samoa		
Tonga		
Taipei,China (until 1999)	1 July 1999–30 June 2000	2000
Nepal	16 July 2010–15 July 2011	2011
Lao People's Democratic Republic (after 1992)	1 October 2010–30 September 2011	2011
Marshall Islands, Republic of the		
Micronesia, Federated States of		
Palau		
Thailand		

## Key Symbols

...	Data not available at cutoff date
–	Magnitude equals zero
0 or 0.0	Magnitude is less than half of unit employed
*	Provisional/preliminary/estimate/budget figure
	Marks break in series
>	Greater than
<	Less than
≥	Greater than or equal to
≤	Less than or equal to
na	Not applicable

## Measurement Units

µg	microgram
kg	kilogram
km	kilometer
kWh	kilowatt-hour
kt	kiloton

## Abbreviations and Acronyms

ADB	Asian Development Bank
ADB SDBS	Asian Development Bank Statistical Database System
AIDS	acquired immunodeficiency syndrome
APEC	Asia-Pacific Economic Cooperation
BOD	biochemical oxygen demand
BOP	balance of payments
BRT	bus rapid transit
CDIAC	Carbon Dioxide Information Analysis Center
CFC	chlorofluorocarbons
CIF	cost, insurance, and freight
CNG	compressed natural gas
CO <sub>2</sub>	carbon dioxide
CPI	corruption perceptions index
CPI	consumer price index
DAC	Development Assistance Committee
DOTS	Directly Observed Treatment Short Course
EFB	empty fruit bunches
EKC	Environmental Kuznets Curve
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization
FDI	foreign direct investment
FIZ	free industrial zone
FOB	free on board
FTZ	free trade zone
GAR	Global Assessment Report on Risk Reduction
GCF	gross capital formation
GDP	gross domestic product
GHG	greenhouse gas
GNI	gross national income



GPI	gender parity index
GRUMP	Global Rural Urban Mapping Project
HCR	head count ratio
HDI	human development index
HIV	human immunodeficiency virus
IBT	increasing block tariff
IEA	International Energy Agency
ILO	International Labour Organization
IMF	International Monetary Fund
ISIC	International Standard Industrial Classification
IT	information technology
ITU	International Telecommunication Union
IUCN	International Union for Conservation of Nature
KILM	Key Indicators of the Labour Market
Lao PDR	Lao People's Democratic Republic
LCU	local currency unit
LDC	least developed countries
LECZ	low-elevation coastal zone
Ln	natural logarithm
MDG	Millennium Development Goal
NPL	non-performing loan
ODA	official development assistance
ODP	ozone-depleting potential
OECD	Organisation for Economic Co-operation and Development
PLI	price level index
PM	particulate matter
PM <sub>10</sub>	particulate matter with diameter of 10 micrometers or less
PPP	purchasing power parity
PRC	People's Republic of China
SNA	System of National Accounts
SPC	Secretariat of the Pacific Community
SPM	suspended particulate matter
TB	tuberculosis
TFR	total fertility rate
UN	United Nations
UNAIDS	United Nation on HIV/AIDS
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UN-HABITAT	United Nations Human Settlements Programme
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNODC	United Nations Office on Drugs and Crime
UNSD	United Nation Statistics Division
UNWTO	United Nations World Tourism Organization
US	United States
US EPA	United States Environmental Protection Agency
WDI	World Development Indicators
WDPA	World Database on Protected Areas
WEO	World Energy Outlook

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WHO	World Health Organization
WRI	World Resource Institute
WUP	World Urbanization Prospects
WVS	World Values Survey

Unless otherwise indicated, “\$” refers to United States dollars.



# Key Indicators for Asia and the Pacific 2012 Highlights

The *Key Indicators for Asia and the Pacific 2012* is the flagship annual statistical data book of the Asian Development Bank (ADB). It presents the latest available economic, financial, social, environmental, and Millennium Development Goals (MDGs) indicators for ADB regional members. Data are grouped into MDGs and regional tables. Briefs and nontechnical analyses are also included for each group. Data that were gathered from ADB regional member can be downloaded from the ADB website or from <http://sdbas.adb.org>. The Special Chapter, “Green Urbanization in Asia,” elucidates unique features of Asia’s urbanization and the massive challenges caused by this unprecedented shift in the location of people and their economic activities. The chapter argues that proper management of the urbanization process can mitigate the environmental impacts and lead to a better life for Asia’s urban residents, and the world in general.

## Part I: Special Chapter – Green Urbanization in Asia

The vast number of people moving into Asian cities is historically unprecedented. As a consequence, the number of megacities is rising and cities are expected to have even higher population densities. This trend is expected to continue as the share of Asia’s population living in urban areas is low relative to that in the rest of the world. The scale and the speed of urban expansion have contributed to the rise of Asia, but present challenges as well as opportunities for the region and the world. Most notable are the environmental challenges, such as the devastating floods during 2011 and 2012 in Bangkok, Beijing, and Manila.

To meet such challenges, Asia must follow a green urbanization path by instituting policies that exploit its late comer’s advantage and the unique features of Asia’s urbanization. Responses to the challenges include developing satellite cities linked by train, light rail, or metro (rather than highways) with megacities (cities populated by 10 million or more people); conserving resources and improving the efficiency; and promoting the use of new technologies and renewable energy. In addition, the green urbanization process must protect the urban poor to ensure that the growth is inclusive and sustainable.

### Asia’s Urbanization has Unique Features

- **From 1980 to 2010, Asia added more than a billion people to its cities—more than all other regions combined—with a further billion set to be city dwellers by 2040.** This massive scale of urbanization is taking place most notably in the People’s Republic of China (PRC), Bangladesh, India, Indonesia, and Pakistan. By the latest estimates, Asia is now home to almost half of all urbanites on earth and its urban population is more than three times that of Europe—the region with the second largest urban population.
- **Asia’s urbanization is rapid, with the PRC transitioning from about 10% of its population in urban areas to about 50% urban in just 61**

**years, versus 210 years in Latin America and the Caribbean, 150 years in Europe, and 105 years in Northern America.** And Asia’s urban population is projected to continue growing faster than that of any other region.

- **Urban Asia is characterized by higher density and most of the world’s megacities.** Already, the three most densely populated large cities in the world (Mumbai, Kolkata, and Karachi, in that order), and 8 of the 10 densest, are in Asia. In 2010, Asia was home to over half—12 out of 23—of the world’s megacities.
- **Asian urbanization still has a long way to go, with the number and sizes of cities growing larger and larger.** In 2010, the urban share of Asia’s population was still only 43%, compared with the worldwide share of 52%. By 2050, the urban share in Asia is projected to reach 63%, gaining on but still below the 67% global average. Thus, Asian cities will have even higher densities and, by 2025, the number of megacities in Asia is expected to increase to 21 of a global total of 37.

### This Unprecedented Urbanization Poses Enormous Challenges

The scale, speed, and density of Asia’s urbanization will present many challenges. Increasing urban crime rates, expanding slums, and rising inequality may ensue. Above all, this unparalleled urbanization will add to the already enormous environmental stress in Asia. The *Key Indicators 2012* special chapter focuses on pollution and vulnerability to flooding as urbanization in Asia proceeds.

The special features of Asia’s urbanization make the challenges all the more serious as the current low level of urbanization suggests that Asia still has a long way to go. The fast pace of urbanization means little time for adjustment or learning. The growing size and number of

megacities will be difficult to manage, and high density makes cities more vulnerable to catastrophic events and disease. Green policies need to be at the core of Asian urban development in the 21st century if the challenges are to be properly managed.

- **Vulnerability to flooding will increase with urbanization: by 2025, a projected 410 million urban Asians will be at risk of coastal flooding.** Over 300 million were already at risk of coastal flooding in 2010, and about 250 million were at risk of inland flooding such as what struck Bangkok last year. The number of urbanites who are vulnerable to inland flooding will also rise, to roughly 350 million by 2025. More than half the population in large cities such as Dhaka, Ho Chi Minh City, and Tianjin are at risk from both inland and coastal flooding.
- **More than half of the world's most polluted cities are in Asia, and air pollution contributes to half a million deaths a year in the region.** Urban air pollution in Asia is higher than in other regions. A staggering 67% of Asian cities (versus 11% of non-Asian cities) fail to meet the European Union's air quality standard (of 40 micrograms per cubic meter [ $\mu\text{g}/\text{m}^3$ ] for particulate matter with diameter of 10 micrometers or less [ $\text{PM}_{10}$ ]).
- **From 2000 to 2008, average per capita greenhouse gas emissions for Asia grew by 97% versus only 18% for the world, with most of the emissions coming from urban areas.** Moreover, the environment may degrade further as Asia continues its growth. Based on the environmental Kuznets curve for Asia, which shows rising and then declining environmental degradation as income rises, Asia is still on the rising side of the carbon dioxide ( $\text{CO}_2$ ) and  $\text{PM}_{10}$  curves. The average income per person of Asia in 2010, at roughly \$6,100 in 2005 PPP, is still well below the "turning point," at around \$41,000 in 2005 PPP, for  $\text{CO}_2$ .
- **Future  $\text{CO}_2$  emissions, if left unchecked under a business-as-usual scenario, could reach 10.2 metric tons per capita by 2050, three times the 2008 level, with disastrous consequences for Asia and the rest of the world.** Three of the top five  $\text{CO}_2$  emitting economies are in Asia, and per capita emissions are rising at an alarming rate.
- **In 2010, the region was home to 506 million slum dwellers, or more than 61% of the world's total slum-dwelling population.** South Asia alone hosts almost 38% of the region's slum dwellers. Almost 408

million people, or over one-fourth of Asia's urbanites, still lack access to improved sanitation facilities.

## But There is Hope: Urban Agglomeration Can Help Improve the Environment if Properly Managed

The environmental Kuznets curve is not an immutable law. Urbanization can help as it promotes development of the service sector, which generally pollutes less than manufacturing; prompts traditional manufacturers to relocate away from major city centers; economizes on the provision of environment-related infrastructure and services such as piped water, basic sanitation, and solid waste disposal; contributes to significantly higher labor productivity; and facilitates innovation, including for green technologies. Rising educational attainments, the growth of the middle class, and declining birth rates typically associated with urbanization can also have broadly beneficial impacts on resource use and the environment.

*In fact, the environment–urbanization curves in Asia have been shifting favorably over time, thanks to better technologies and policies.* The curves have shifted down and to the left during the last two decades, meaning lower emissions and pollution at the same level of urbanization, and that the peaks come sooner. Between the 1990s and 2000s, the shifts have led to 20% less  $\text{PM}_{10}$  ( $\mu\text{g}/\text{m}^3$ ) and 27% less  $\text{CO}_2$  emissions per capita than would have otherwise been expected.

## Policies for Asia's Green Urbanization

To ensure a green urbanization path, conservation and efficiency improvements will be essential because of the combined speed and scale of Asia's urbanization. Promoting new frontiers that are built using renewable resources and new technologies is also important in order to benefit from the region's late comer advantage. And as Asia learns from the mistakes of others and its own past, there is recognition that urban growth must be inclusive and sustainable.

In particular, green urbanization strategies in Asia should take into account the distinctive characteristics of Asia's urbanization that will lead to a different pattern of city development. Unlike Europe and the United States, Asia does not have the luxury to live in suburbs and drive to city centers for work. The region needs to develop environment-friendly satellite cities that are linked to megacities by rail or metro rather than highways. In Asia's urbanization, critical

masses of people will be in relatively small areas, making it important to take advantage of cost effectiveness in supplying essential services such as piped water and sanitation. Finally, after the highly commendable and recent rapid expansion of physical infrastructure in Asia, the growing challenge now is to improve the quality of infrastructure, paying special attention to safety standards and resilience to natural disasters.

- **Enhancing efficiency and conservation to reduce consumption of resources and energy**

- **It is important to get prices right, so they incorporate full social costs and benefits to allocate resources efficiently.** This can be done by imposing congestion and emission charges, as implemented in Singapore, and removing inefficient subsidies, as in Indonesia. Other examples are the introduction of carbon taxes, as in the Republic of Korea, and use of increasing block pricing for water, electricity, and other public utilities, as in the Philippines.

- **Introduce regulations and standards in a timely manner.** Implementing appropriate regulations and standards can help to correct for market or coordination failures on air, water, vehicles, and appliances, as in India. The government can construct green industrial zones to assist manufacturing to relocate, as in Indonesia. Improved regulations can also help to reduce or prevent urban sprawl.

- **Use rapid public transport for connectivity and less pollution.** Speedy connections to and from satellite cities can ease congestion in central megacity hubs. A bus rapid transit system, as in the PRC, and subways, as in India, for densely populated cities can lower environmental consequences and enhance the quality of life.

- **Promoting new frontiers that use renewable resources and new technologies**

- **Advance or adapt technology for environmental protection and efficient resource use.** A good example is using waste-to-energy plants to reduce pollution and at the same time generate renewable energy, as in the Philippines and Thailand. Green technology can be acquired either by imports or innovated through research and development, as in the PRC.

- **Incorporate environmental priorities in city planning.** This is under way through building new

and satellite cities with renewables as primary energy sources, as piloted in the PRC. Urban sprawl can be tackled by developing a local system of compact, walkable satellite cities centered around high quality train, light rail, or metro systems, without heavy reliance on highways and major roads for connection, and by reviving city centers.

- **Employ alternative energy and “smart” electricity grids to promote efficiency and reduce emissions.** More power can be generated using renewable resources to meet rising demand.

- **Protecting the poor for social harmony and inclusiveness**

- **Enhance resiliency and reduce vulnerability to disasters.** This can be done by constructing houses in safe areas, improving housing affordability for the poor, and investing in drainage infrastructure and climate forecast technology.

- **Progress must also be made to improve urban slums.** Useful policies include granting land titles to slum dwellers, issuing housing vouchers linked in value to the length of a resident’s tenure in the city, and providing basic services to slum areas.

- **Public finance, transparency, and accountability to facilitate green urbanization**

- **Public finance to support green cities.** This can be accomplished by broadening tax and revenue bases and by increasing access to broader and deeper capital markets by local urban governments to lower their financing costs for urban infrastructure and public services.

- **Incentivize politicians to ensure transparency and accountability.** Avenues include disclosing city government performance to the public and nongovernment organizations, and launching national competitions or campaigns to encourage a “race to the top” where high performance is rewarded.

Asia’s current urbanization is different from historical experience in terms of speed and scale, and is generating and confronting unprecedented challenges. It also comes with forces that, if properly managed, can help to address the challenges. Asia’s future depends on using best practices and policy innovations to promote green urbanization, thereby ensuring a better life for its urban residents, and the world.

## Part II: Millennium Development Goals Trends

Despite Asia and the Pacific region's remarkable success in lifting many people out of poverty, reducing the poor from about 1.5 billion in 1990 to approximately 830 million in 2008, it is still home to roughly two-thirds of the world's poor. Many economies in the region are expected to achieve the targets for reducing extreme poverty, providing universal primary education, and promoting gender equality. However, the region's performance on health targets is mixed. While it has reduced the prevalence of HIV and has arrested the spread of tuberculosis, similar to other regions in the world, it is not expected to achieve the MDG targets for reducing child mortality and improving maternal health by 2015. With respect to environmental sustainability, forest cover is still shrinking, but the areas placed under protection have increased and the slum population, as a percentage of urban population, has declined. While the region has made significant progress in providing access to improved drinking water sources, the provision of improved sanitation facilities remains a more difficult problem. With respect to global partnerships, the proportion of bilateral aid to ADB's developing members that is untied has been rising and debt service ratios have generally declined to a manageable range.

### MDG 1: Eradicate Extreme Poverty and Hunger

- A majority of the countries in Asia and the Pacific saw declining extreme poverty rates but the proportion of the population living on less than \$1.25 a day at purchasing power parity (PPP) remains over 20% in eight countries, including the populous countries of Bangladesh, India, and Pakistan.
- While the poor are moving out of extreme poverty, the number of poor living on less than \$2.00 (PPP) a day remains high—13 of the region's economies have poverty headcount ratios over 40%.
- While most countries are able to significantly lower their proportions of working poor, many still have working poverty rates above 10% and vulnerability rates above 50%.
- Gains were achieved in curbing hunger. A majority of the economies saw progress in reducing the proportions of underweight/malnourished children and undernourished people.

### MDG 2: Achieve Universal Primary Education

- Most of the region's economies are on their way to achieving primary school net enrollment targets, with 30 of 42 reporting economies achieving net enrollment rates of 95% or higher. But in Nepal, Pakistan, and Papua New Guinea (PNG), primary school net enrollment rates remain below 75%.
- While net enrollment rates in Asia and the Pacific are generally high, in 2009 or the nearest years, 65% of the region's developing economies (26 of 40) were not able to reach the cutoff rate of 95% of primary school entrants reaching the last year of primary schooling (the "expected cohort survival rate").
- The average net enrollment rate in East Asia (96.6%) is comparable to the average of developed countries in the world, at 97.1%. The other subregions in Asia and the Pacific have net enrollment rate averages ranging from 91.5% to 95.4%, which are at par with other regions in the world and which are significantly higher than Sub-Saharan Africa (76.2%).
- In terms of the expected cohort survival in primary education, the progress made by East Asia, Southeast Asia, and Central Asia (97.3%–98.7%) is at par with the developed regions (100.0%). South and West Asia registered average survival rates below 90%.
- Only about one-fourth of the reporting developing economies (12 of 44) have youth literacy rates below 95%, suggesting that, overall, the youth will perform well in the labor market.

### MDG 3: Promote Gender Equality and Empower Women

- The region has made substantial progress toward eliminating gender disparity at the primary level of education. Almost two-thirds of the 46 reporting economies have achieved gender parity in primary education.
- Eighteen of the 46 reporting economies have gender parity indexes higher than 1.03, implying higher secondary school enrollment among girls than boys.

- More than half of the reporting economies (21 of 40) had gender disparity indexes above 1.03 at the tertiary level, but there is wide variation across economies.
- Most economies in the region posted gains in female representation in national parliaments; Nepal had the highest rate of female representation (at 33%) in the national parliament in 2012.

## MDG 4: Reduce Child Mortality

- Progress with improving child survival is slow in Asia and the Pacific region, as in all other developing regions. By 2010, only 4 of 43 economies had reduced their under-5 mortality rates (U5MRs) or child mortality rates to one-third of 1990 values, and 28 economies are not expected to meet the MDG target by 2015.
- Bangladesh, Bhutan, the Lao People's Democratic Republic (Lao PDR), the Maldives, Mongolia, Nepal, and Timor-Leste have become early achievers or will meet the MDG target by 2015, a significant improvement from having more than 100 children under-5 years dying for every 1,000 live births in 1990.
- In the region in 2010, under-5 and infant mortality improved from the 1990 levels, but still, in 2010, close to 3.2 million children under 5 years of age died, about 2.5 million of them before reaching 1 year. Compared to 1990, in 2010 the U5MR was halved in South Asia and was reduced by about 25% in Central Asia. Infant deaths account for a significant proportion of the U5MR.
- In 2010, about 85% of the region's children had been immunized for measles, a leading cause of childhood death. The PRC had immunized 99% of its 1-year-old children against measles, one of the region's highest rates. The proportions of 1-year-olds immunized against measles were lowest in South Asia and the Pacific.

## MDG 5: Improve Maternal Health

- In Asia and the Pacific, maternal health has been improved significantly, with the maternal death rate—measured by the maternal mortality ratio (MMR)—reduced by more than half the 1990 levels. However, the region is not likely to reach the

MDG target by 2015, as this requires a further 25% reduction of the MMR. Among the 33 developing economies with available data, 24 are expected to meet the goal only after 2015. This situation is similar in other developing regions.

- MMRs decreased in economies where deliveries attended by skilled health professionals and antenatal care coverage increased. By 2010, South Asia's MMRs had declined to 201 deaths per 100,000 live births from 622 in 1990.

## MDG 6: Combat HIV/AIDS, Malaria, and Other Diseases

- By 2009, HIV prevalence had declined significantly in Cambodia, Myanmar, and Thailand where it was high in 2001. Almost all economies increased access to antiretroviral drugs for those with advanced HIV infection.
- The incidence and prevalence rates of tuberculosis and the death rates associated with tuberculosis in most countries in the region have declined. However, the Marshall Islands and some economies in Central and West Asia are regressing in meeting the goal of halting or reversing the tuberculosis incidence.
- Although the incidence of malaria remains high in many economies in the region, the death rates associated with malaria in 2008 were generally low, for economies with available data at less than 7 per 100,000 population, except in Myanmar and the Pacific.

## MDG 7: Ensure Environmental Sustainability

- Deforestation continues to threaten the region. Between 1990 and 2010, land area covered by forest shrank in 23 of the region's economies, with the largest percentage decreases in Cambodia (16%), Timor-Leste (15%), Indonesia (13%), and Myanmar (11%). Some economies increased their forest cover during the period through large-scale afforestation programs—including in the PRC; Samoa; Taipei, China; and Viet Nam.
- Per capita carbon dioxide emissions in the region are highest in Australia, Brunei Darussalam, the Republic of Korea, Nauru, and Palau. Notable is the reduction in per capita carbon dioxide emissions in Singapore



from 15.6 tons in 1990 to 7.0 tons in 2009, but this is still considerably higher than the rate of the world's developing regions, at 3.0 tons.

- More than half of the reporting economies have either reached or are on track to achieve the target of halving the proportion of population without access to improved water sources. However, about half of the economies in the region are not expected to achieve the target for improved sanitation.
- For countries where data are available, the slum population as a percentage of urban population declined during 1990–2009. In 2009, only the South Asia subregion had an average that (at 35.0%) was higher than the developing world's average slum population (at 32.7%).

## MDG 8: Develop a Global Partnership for Development

- In 2010, the net flow of official development assistance to developing economies amounted to \$128.5 billion, which is equivalent to 0.32% of the combined gross national income of Development Assistance Committee members, all of which are ADB

members except for Greece. This fell short of the 2010 target of \$130 billion (at constant 2004 prices) of the Gleneagles Group of Eight (G8) Summit.

- From 2000 to 2010, the proportion of untied bilateral aid rose progressively. Developing ADB members received a total of \$37 billion, including net flows of long-term public and publicly guaranteed debt from official creditors and grants in 2010—a 4.8% increase from the 2009 allocation.
- A substantial drop in exports for many developing members in 2009, after the global financial crisis, arrested the steady decline of their debt service ratios (debt service to exports of goods and services). Except for Central and West Asia, where debt service ratios increased to over 40% in 2009, these ratios remained within manageable levels, at about 12% or less in the region.
- More than half of developing ADB members—12 that are landlocked and 12 small island economies—are given preferential access to major markets. The landlocked economies received about \$11.5 billion and the small island economies received about \$2 billion of net flows of public and publicly guaranteed debt in 2010.

## Part III: Regional Trends

The Asia and Pacific region is home to more than half of the world's population. About 46% of the region's populations live in urban areas and most economies are in the medium human development index (HDI) group. The region contributed about 36% of the global gross domestic product (GDP) in PPP terms and 34% of the total world exports of merchandise goods in 2011. The region's economic growth in 2011 has been higher than that of Europe and the United States. In most of the region's economies, there has been a shift toward greater capital formation and lower private consumption expenditure, as measured by their shares in GDP. International trade, including intraregional trade, has gained greater importance in the region over the past decade.

For ADB developing members, migrant workers' remittances continue to be an important external source of foreign exchange; foreign direct investment (FDI) flows have recovered from a drop in 2009; and the debt burden, as measured by external debt as a percentage of gross national income (GNI), has declined during the last decade. As food prices have been rising faster than

the general inflation, there is greater risk of more people falling into extreme poverty, imperiling the gains that the region has achieved in poverty reduction.

The region accounted for close to 40% of world energy demand, with most electricity generated using fossil fuels (coal, oil, and natural gas). Fixed broadband internet subscriptions have surged over the last decade, but the region's average internet penetration level remains below that of the world as a whole. Starting a business is becoming cheaper and faster for most economies but combating corruption remains a problem in the region.

### People

- In 2011, Asia and the Pacific region was home to 3.9 billion people, or about 56% of the world's population. The population is projected to peak in 2050 and then fall to 4.0 billion in 2100, about the same level as in 2011.

- More than 40% of the region's population lived in urban areas in 2011. Of the world's 23 megacities (cities with at least 10 million population), in 2011, 12 are found in Asia.
- Total fertility rates fell from almost 4 children per woman in 1990 to about 3 in 2010 in almost all economies in the region during the last 20 years.
- High dependency ratios burdens government spending on education, pensions, and health care in the three developed economies in the region—Australia, Japan, and New Zealand—ranging from 13% to 23%.
- With most economies in the medium human development group, the region has made progress in the HDI during the last 10 years—the highest percentage improvements were in low-HDI economies: Afghanistan, Cambodia, Myanmar, and Timor-Leste.

## Economy and Output

- Asia and the Pacific contributed about 36% of global GDP (in PPP terms) in 2011; Europe, North America, and the rest of the world contributed 28%, 23%, and 14%, respectively. The PRC, India, and Japan accounted for more than 70% of the region's total GDP.
- In 2011, the region grew at an average rate of about 5.6%—significantly higher than the growth estimated for Europe (2.3%) and the United States (1.7%). Twenty-two economies in the region recorded slower growth and 18 had accelerated growth.
- Consumption expenditure was by far the largest expenditure component of GDP in 2011 in 24 economies in the region, although shares were generally lower than in 2001.

## Money, Finance, and Prices

- Money supply growth declined from 15.4% in 2010 to 14.6% in 2011 as economies adopted tighter fiscal and monetary policy to control inflationary pressures.
- Nonperforming bank loans have remained manageable in the region, but are high and rising for some countries in Central and West Asia.

- The consumer price indices (CPIs) of economies in the region have increased since 2010 on account of food prices and their heavy weight in the CPI. The food CPI moved faster than the general CPI in 2011, which affirms the global phenomenon of increasing food prices and puts more people at risk of falling into extreme poverty.

## Globalization

- Trade has gained greater importance in the region, which accounted for 34% of total world merchandise exports in 2011 versus 25% in 2001. Intraregional trade is high, with more than half of Asian and Pacific exports in 2011 going to economies within the region.
- As shown by increasing shares of service exports in GDP, trade in services is growing significantly more important to the region, particularly for economies such as Fiji; Hong Kong, China; the Maldives; Singapore; and Vanuatu. Tourism is a notably important engine of development for some economies, especially in the Pacific (e.g., the Cook Islands, the Maldives, Palau, Samoa, and Vanuatu).
- Migrant workers' remittances continue to be an important external source of foreign exchange for some economies in the region. Based on the average share in GDP for the last 5 years, remittances were most important to Tajikistan, with an average share of 42.2%; Tonga, with 23.3%; and the Kyrgyz Republic, with 23.2%.
- FDI flows in developing Asia posted recovery in 2010 from a drop in 2009 resulting from the global financial crisis. Of the 24 reporting economies, 15 had positive FDI growth in 2011.
- Among 36 economies in the region with data on external debt, nearly two-thirds showed a decrease in external debt as a percentage of GNI, ranging from 2% to 94% in 2010.

## Transport, Electricity, and Communication

- The total road network of developing economies, excluding the Pacific economies and the Maldives for which data are sparse, more than doubled, from 4.9 million kilometers in 1990 to 10.3 million kilometers as of 2009 or the latest year data are available. The PRC and India, which are the two most populous

economies in Asia and have large land areas, account for almost two-thirds of the region's road network. However, economies with high per capita income, such as Japan and Singapore, have the region's highest road densities. Among the ADB developing members, the South Asian economies—Bangladesh, India, and Sri Lanka—have relatively high road densities.

- Most electricity in Asia is generated using carbon fuels (coal, oil, and natural gas), and the share of electricity generated from these carbon fuels increased substantially, from 68% in 1990 to 78% in 2009.
- The region has experienced a surge in fixed broadband internet subscriptions during the last decade, led by increases in subscriptions in the PRC, India, and the Republic of Korea. The region's average penetration level, at 6.4 per 100 population, is below the world's penetration rate of 8.5 but higher than in Africa (0.2) and the Middle East (2.1).

## Energy and Environment

- Asia and the Pacific region accounts for close to 40% of world energy demand, but most of the economies rely on imports to fill their energy requirements.
- Between 2000 and 2009, a majority of the economies improved their energy efficiency, with some improving their GDP per unit of energy use by more than 60%. This was achieved through technological advances, shifts in industrial structure toward services, and changes in government policies such as phasing out fuel subsidies. The general improvement in energy

efficiency in the region is a welcome development, given that energy remains the largest contributor to greenhouse gas emissions, which increase with the region's continued economic growth.

- The region's fossil fuel consumption subsidy rates, though generally lower than those in the Middle East, are considerable, exceeding 20% of supply costs in several Asian countries. However, some economies have started to replace this type of subsidy with more targeted transfers to the poor.

## Government and Governance

- Fiscal balances continue to show improvements in most of the region's economies.
- Tax-to-GDP ratios rose in 2011 from 2010. Of 31 reporting economies in 2011 in the region, 24 have tax revenue shares that are lower than in developed members.
- In 2011, 8 of the 34 reporting economies registered increases ranging from 1.0 to 5.9 percentage points in government expenditure as a share of GDP.
- Starting a business is becoming cheaper and faster in most of the region's economies. The average days to start a business dropped to 28 in 2011 from 42 in 2006.
- Combating corruption remains a problem for many economies in the region. Only 9 of 41 economies that were surveyed are ranked on the corruption perception index as having minimal to average perceived corruption.

**PART I**  
Special Chapter

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**Green Urbanization in Asia**





From 1980 to 2010, Asia added more than 1 billion people to its cities.<sup>1</sup> More than half of the world's megacities (cities with 10 million or more people) are now in Asia. Another 1.1 billion people will be added to Asia's urban population in the next 30 years (UN 2012). From 1980 to 2040, every year more than half of the increase in the world's urban population has been or will be in Asia. Such a scale of urbanization<sup>2</sup> is unprecedented in human history. With all its potential benefits and costs, Asia's urbanization presents both challenges and opportunities for the region and the world as a whole.

The phenomenal urbanization in Asia is largely driven by fast economic growth, particularly in the People's Republic of China (PRC) and more recently in India. Asia's growth is dominated (as has happened elsewhere) by the expansion of services and manufacturing. Agriculture experiences a relative decline because the expenditure share on farming products typically drops as income rises and agricultural supply is constrained by the balance between productivity (yield) increases and land conversion to nonagricultural uses. Meanwhile, industrial and service supplies are much less constrained by land as a factor of production and benefit relatively more from deepening physical and human capital stocks. Also, the demand for manufactured products and services is nearly insatiable, as demonstrated by the frequent releases and popularity of new versions of electronic products such as "smart phones" and "tablets." Because industrial and service production and consumption usually take place in cities, they generate jobs and provide opportunities and attractions for people in general and migrants in particular, leading to continued urbanization.

Urbanization comes with both benefits and costs. "Localization economies" result from agglomerations of firms in the same industry benefiting from spillovers of knowledge and technology, pooling of labor markets, and intensified competition. "Urbanization economies" refers to externalities attributable to agglomerations of firms in the same cities but from different industries, which are taking advantage of backward or forward linkages, reduced transaction costs, and sharing of common services and intermediate inputs. In particular, by locating

ambitious, talented individuals in close physical proximity, urbanization helps promote innovation and technological progress, leading to higher productivity. These benefits of urbanization help raise household incomes and firm profitability. It is generally accepted that city growth has made urbanites happier, healthier, and smarter, and cities that can attract and retain skilled people have a bright future (Glaeser 2011, Moretti 2004a).

Urbanization also comes with costs. Noise and congestion are among the most apparent features of cities. City living entails higher costs for housing, raising children, and health care. In addition, income inequality and crime rates tend to be higher in urban areas. The quality of the urban environment receives considerable attention, partly arising from concerns over the sustainability of development and climate change, and partly from shifting preferences as incomes rise.

Asia has already been facing enormous environmental challenges. Three of the top five carbon dioxide (CO<sub>2</sub>) emitting economies and 11 of the 20 most polluted cities in the world are in Asia. In many Asian nations, losses from traffic-related congestion amount to 5% of gross domestic product (GDP) (ADB 2012a). In rich Asian cities (such as Hong Kong, China; Singapore; Seoul; and Tokyo), high incomes and technology that became available during the last 50 years have already resulted in much pollution and a large ecological footprint. The situation is particularly worrisome in poor cities that experience rapid growth, where pollution is becoming extremely serious, infrastructure supply lags behind demand, and basic public services such as water connections and solid waste disposal do not reach the majority. In addition, many residents live on marginal lands where they face risks from flooding, disease, and other shocks.

In the absence of appropriate interventions, urbanization and further economic growth may result in greater deterioration of the environment and urban living conditions. For example, the region was home to 506 million slum dwellers in 2010, more than 61% of the world's total.

This special chapter focuses on the environmental challenges Asia faces as it urbanizes. It begins by highlighting special features of Asia's urbanization in the next section, including its massive scale and low level, the fast pace of urbanization, high population density, and more and growing megacities.

1 In this Special Chapter, "Asia" refers to the Asia and Pacific region. The terms "cities" and "urban population" are as defined by the UN (2012). In this chapter, the terms "city" and "urban" are used interchangeably.

2 For clarity, the terms "scale" or "size" of urbanization refer to the absolute increase in total urban population. The "urbanized share" or "level of urbanization" refers to the share of the national or regional population living in urban areas. The "pace or speed of urbanization" refers to the change in the percentage points of the urbanized share. Unless otherwise indicated, changes in urban population include both net migration and natural increase of existing urban population.

The chapter then discusses the environmental challenges associated with urbanization, covering topics of urban air pollution, greenhouse gas (GHG) emissions, access to water and sanitation, loss of natural ecosystems and amenities, and urban slums and poverty. Given the increasing concerns about sea level rise associated with climate change and the number of coastal cities in Asia, estimates of population at risk due to coastal flooding and the proportion of city population affected by this risk are presented. But the future does not need to be grim.

Thus, the chapter presents arguments to support a cautiously optimistic and achievable environmental prospect for Asia as it continues to urbanize. While “business as usual” could make things worse, certain forces and mechanisms associated with urbanization if managed properly can help counter the trend in environmental degradation. These forces include declining fertility, rising educational levels, relocation of manufacturing away from city centers, innovations in green technology, and improvements in urban infrastructure. The environment–urbanization relationship (using air particulate matter pollution and CO<sub>2</sub> emission as indicators) will be investigated and used to depict a possible green urbanization path for Asia.<sup>3</sup>

A green urbanization path, of course, is not automatically achievable unless appropriate policies and interventions are designed and implemented in a timely fashion. Before concluding, the chapter offers a number of evidence-based policy options that can help achieve a win–win scenario of urban growth with improvement in the environment.

## Special Features of Urban Growth in Asia

In a process similar to that much earlier in Europe, Latin America, and Northern America, Asia has been urbanizing for many years now and the process is projected to gain momentum in the coming decades. Unlike other regions, however, Asia’s urbanization is different in several key aspects.

*First, urbanization in Asia has been occurring rapidly and will continue to do so in the foreseeable future.* Table 1, which is based on data and projections of the UN (2012), tabulates the level of urbanization and its change for different regions and two Asian economies. The last two columns of Table 1 show the total percentage point

increase in the level of urbanization for the periods 2000–2010 and 2010–2050. While Asia increased its urbanization level by 7 percentage points in 2000–2010, Africa—the second fastest urbanizing region during the same period—only experienced a 3.6 percentage points increase. Similarly, during 2010–2050, Asia is projected to increase its urbanization level by 20.4 percentage points, but the projected increase for Africa is only a total of 18.5 percentage points.

Table 1 Urbanization Level and Changes (actual and projected)

Region	Level of Urbanization (%)			Percentage Point Change (%)	
	2000	2010	2050	2000–2010	2010–2050
Europe	70.8	72.7	82.2	1.9	9.5
Latin America and the Caribbean	75.5	78.8	86.6	3.4	7.8
Northern America	79.1	82.0	88.6	2.9	6.6
Africa	35.6	39.2	57.7	3.6	18.5
Asia	35.5	42.5	62.9	7.0	20.4
China, People's Rep. of	35.9	49.2	77.3	13.3	28.1
India	27.7	30.9	51.7	3.3	20.8

Source: ADB estimates based on UN (2012).

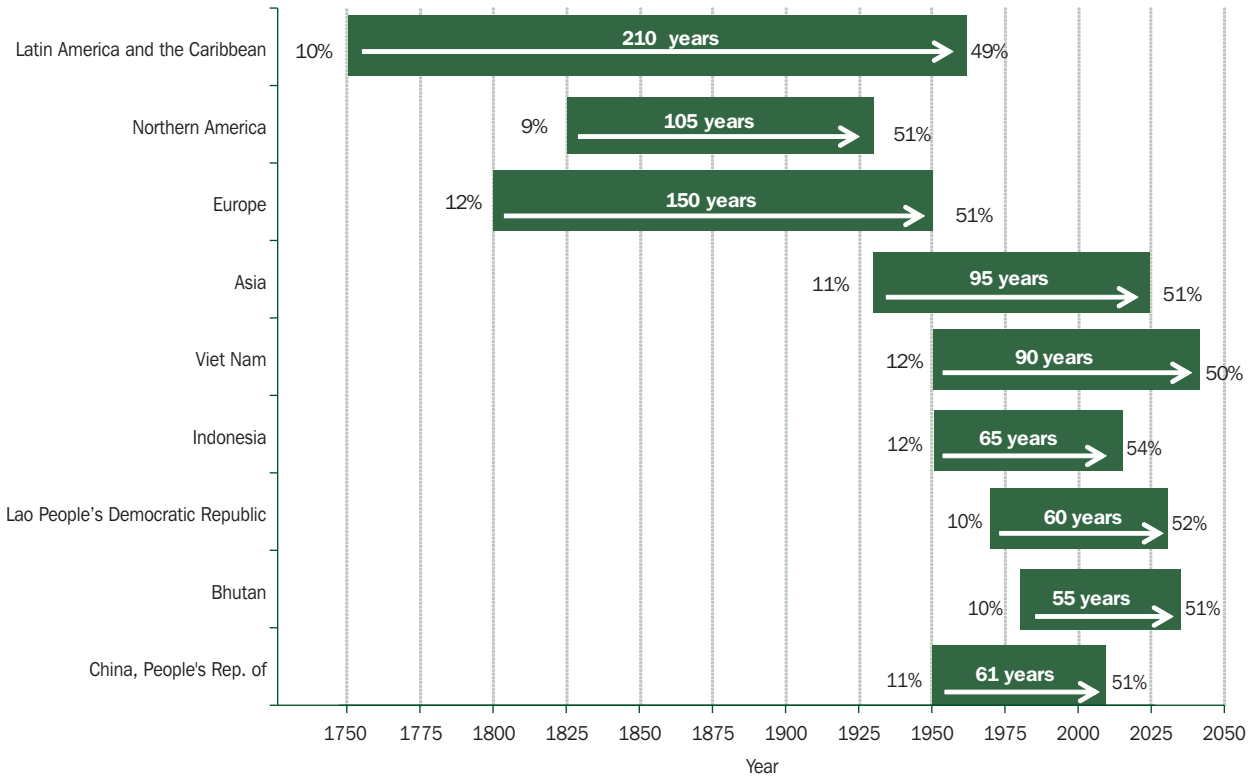
More revealing is a comparison of the number of years between the start of a region’s urbanization, when about 10% of its population was urban, to when about 50% of its population is urban. Figure 1 shows that this process lasted 210 years in Latin America and the Caribbean (from 10% in 1750 to 49.3% in 1960), 150 years in Europe (from 12% in 1800 to 51.3% in 1950), and 105 years in Northern America (from 9% in 1825 to 51% in 1930), and it will take 95 years or less in Asia (from 11% in 1930 to 51% in 2025). For countries within Asia, this process lasted only 61 years for the PRC and is estimated to last 55 years for Bhutan, 60 years for the Lao People’s Democratic Republic (Lao PDR), 65 years for Indonesia, and 90 years for Viet Nam.

*Second, the absolute increase in city population in Asia is unprecedented,* partly due to its large population base and partly due to its fast speed of urbanization. Since the 1950s, Asia has added more than 1.4 billion people to its cities (Figure 2). Almost 537 million were added during the 35 year interval of 1950 to 1985. But in the following 15 years, 1985–2000, 465 million were added. More strikingly, from 2000–2020, a total of 822 million will be added. Figure 2 also provides geographic breakdowns of these numbers. Clearly, most of these increases are from Bangladesh, the PRC, India, Indonesia, and Pakistan, Asia’s most populous countries.

To some extent, global urbanization is largely an Asian phenomenon (Figure 3). Since the early 1980s, Asia has added more people to the global urban population than all other regions combined. By the latest available statistics, Asia is now home to almost half of the total urbanites on earth (Figure 4)—Asia’s urban population is more than three times that of Europe, the second largest region in terms of urban population (UN 2012).

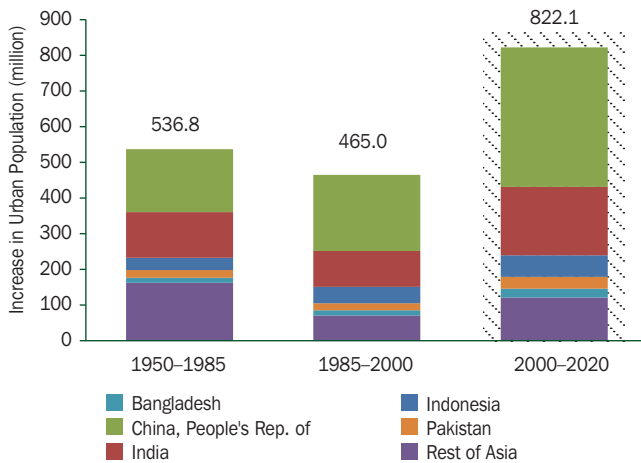
<sup>3</sup> “Green urbanization” is defined as urbanization that excels in both local and global environmental criteria. The local criteria include clean air, clean water, access to green space, quality transport options, and the capacity to protect residents from risks of natural disasters. The key global criterion is per capita carbon footprint.

Figure 1 Number of Years from about 10% to 50% Urbanization



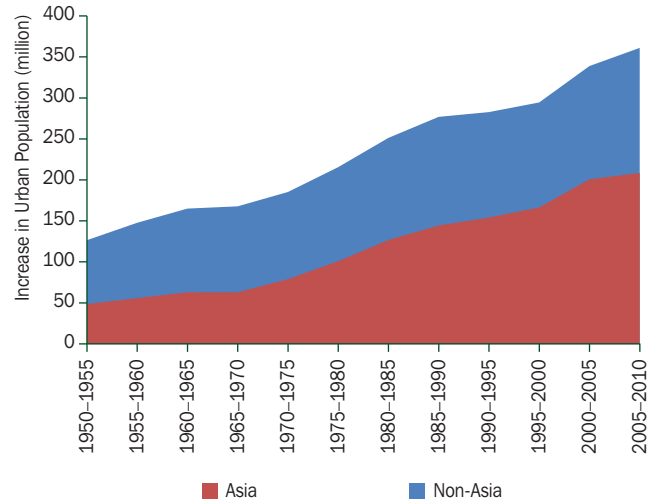
Note: Extrapolation and interpolation were used to estimate urbanization level and corresponding starting years for Latin America and the Caribbean and Northern America.  
Sources: ADB estimates based on Bairoch (1988) and UN (2012).

Figure 2 Increase in Urban Population in Asia (millions)



Note: Data for 2010-2020 are based on projections of UN World Urbanization Prospects, 2011 Revision.  
Source: ADB estimates based on UN (2012).

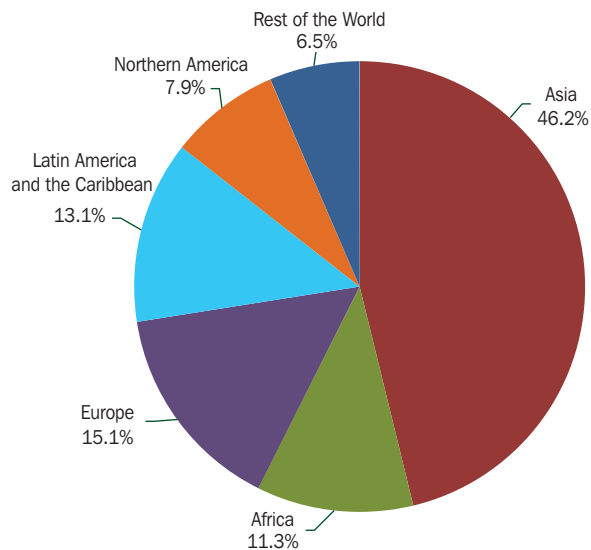
Figure 3 Increase in Urban Population, 1950-2010



Source: ADB estimates based on UN (2012).



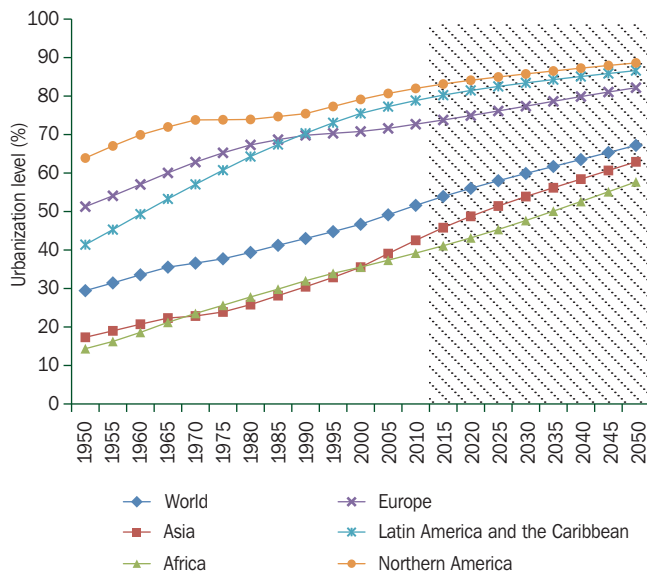
Figure 4 Regional Shares of Global Urban Population, 2010 (%)



Northern America = Canada and the United States.  
Source: ADB estimates based on UN (2012).

Third, contrary to the unprecedented expansion of city population, Asia's level of urbanization is still low. As shown in Figure 5, the level of Asia's urbanization (i.e., the share of its population living in urban areas) has been lower than that of the world at least since 1950. Across regions, Asia was the least urbanized, even less than Africa, during 1970–2000. In 1960, only 20.7% of Asia's population was urbanized versus 33.6% for the world. In 2000, 46.7% of the world's population lived in cities while only 35.5% of the population in Asia did so. In 2010, these

Figure 5 Level of Urbanization by Region (%)



Northern America = Canada and the United States.  
Source: UN (2012).

urbanization shares moved to 52% and 43%, respectively. Thus, the urbanization gap between Asia and the rest of the world has narrowed but remains large.

The gap in the urbanization level between Asia and the world will narrow further (UN 2012). By 2050, while 62.9% of Asians will live in cities, this percentage will be 67.2 for the world. Asia's level of urbanization will be higher than Africa's (57.7%), but still lower than Europe's (82.2%), Northern America's (88.6%) and Latin America and the Caribbean's (86.6%).

Fourth, Asia is home to most of the world's megacities and its share has been increasing (Figure 6). There were only two megacities in the world in 1950: New York, with a population of 12.3 million, and Tokyo, with 11.3 million. By 1980, two more megacities had emerged: São Paulo, with a population of 12.1 million, and Mexico City, with 13 million. However, by 2010, Asia had 12 of the world's 23 megacities. The UN (2012) predicts that these numbers will increase to 21 and 37, respectively, by 2025.<sup>4</sup> Cities such as Chongqing, Guangzhou, Jakarta, Lahore, and Shenzhen are expected to pass the 10 million mark soon. The large cities expected to grow the most include Dhaka, Lahore, Karachi, Kolkata, Manila, Mumbai, and Shanghai. Thus, while the majority of the world's megacities are in Asia, even more are emerging.

Although megacities are growing and their numbers are increasing, the largest city of each country in Asia is home to a smaller share of the total urban population than is the case in other regions. "Urban primacy" is indicated by the share of the country's urbanites who live in the largest city of the country. Relative to the rest of the world, Asia shows a much lower level of urban primacy (Figure 7), indicating that its urban populations are less concentrated in the largest city of each country. In 2009, roughly 12% of Asia's urban population lived in their country's largest cities, while outside of Asia, this share was 21%. This suggests that the size of Asia's primate cities is likely to increase. So, although Asian cities are already large, some of Asia's megacities are likely to become larger still, even relative to medium- and small-sized cities in the same country.

Fifth, Asia's cities feature much higher population densities than cities elsewhere in the world. The world's three most densely populated large cities are in South Asia, and 8 of the top 10 are in Asia (Figure 8). The average urban area (settlements of 5,000 or more people) has 720 people per square kilometer in Asia, compared with about 500 in Africa, the region with the second highest

<sup>4</sup> The raw data can be downloaded at [esa.un.org/unpd/wup/CD-ROM/WUP2011-F17a-City\\_Size\\_Class.xls](http://esa.un.org/unpd/wup/CD-ROM/WUP2011-F17a-City_Size_Class.xls)

Figure 6 Number of Megacities

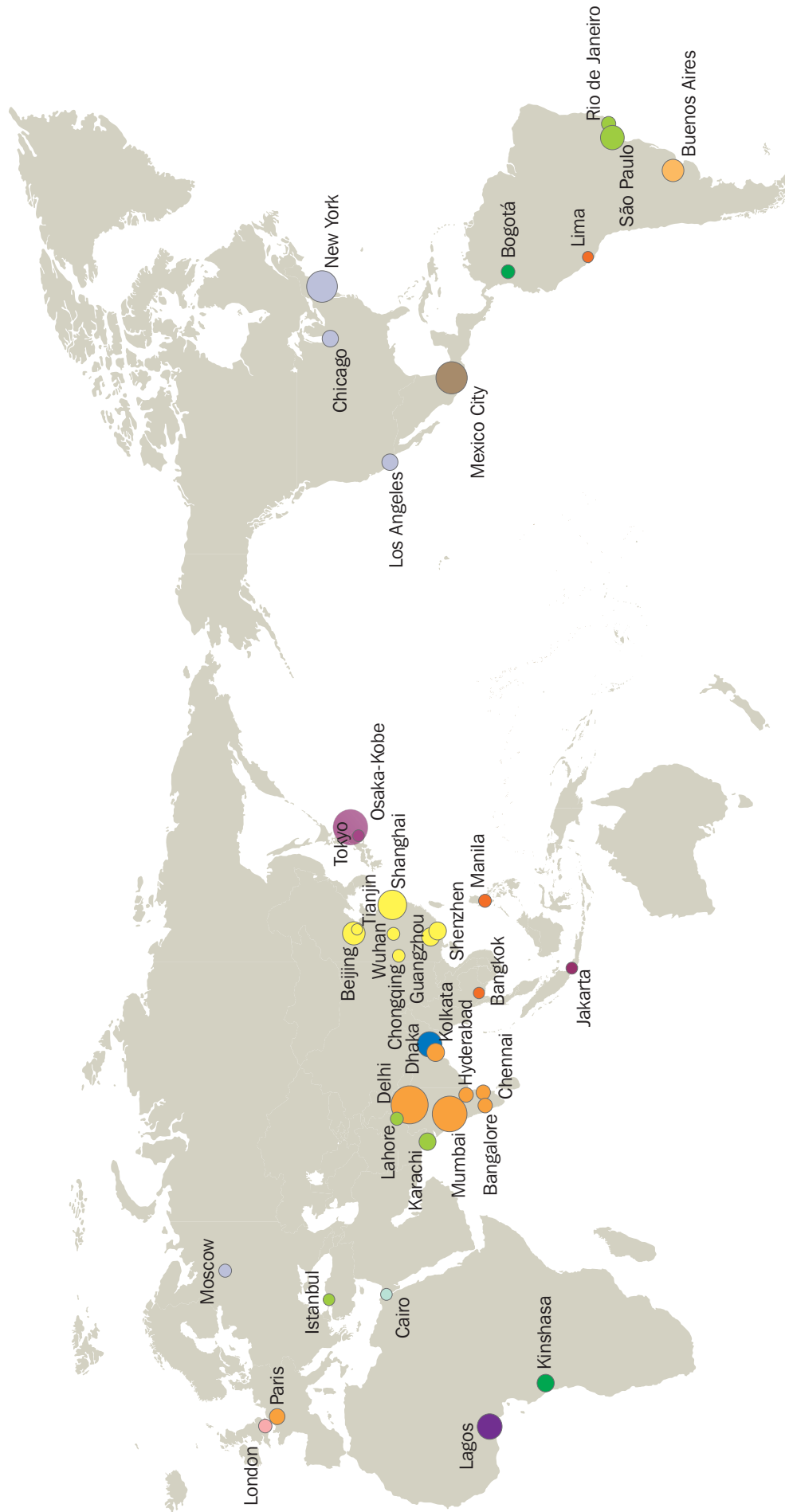


Note: The circles indicate population sizes ranging from ○ (10 million) to ● (39 million). The circles do not reflect the physical extents of the cities and any overlap between them merely reflects their relative population sizes and not any official acceptance or endorsement of any geographical sovereignty.

Source: UN (2012).

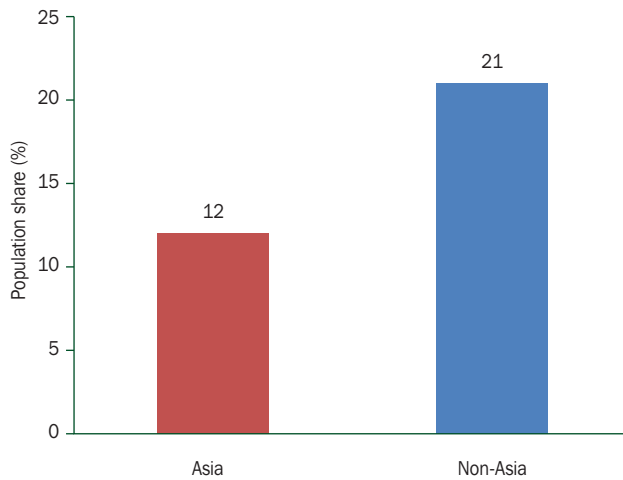
Figure 6 Number of Megacities (continued)

2025



Note: The circles indicate population sizes ranging from 10 million to 39 million. The circles do not reflect the physical extents of the cities and any overlap between them merely reflects their relative population sizes and not any official acceptance or endorsement of any geographical sovereignty.  
 Source: UN (2012).

Figure 7 **Population Share of Largest Cities of Individual Countries, 2009**  
(% of total urban population)



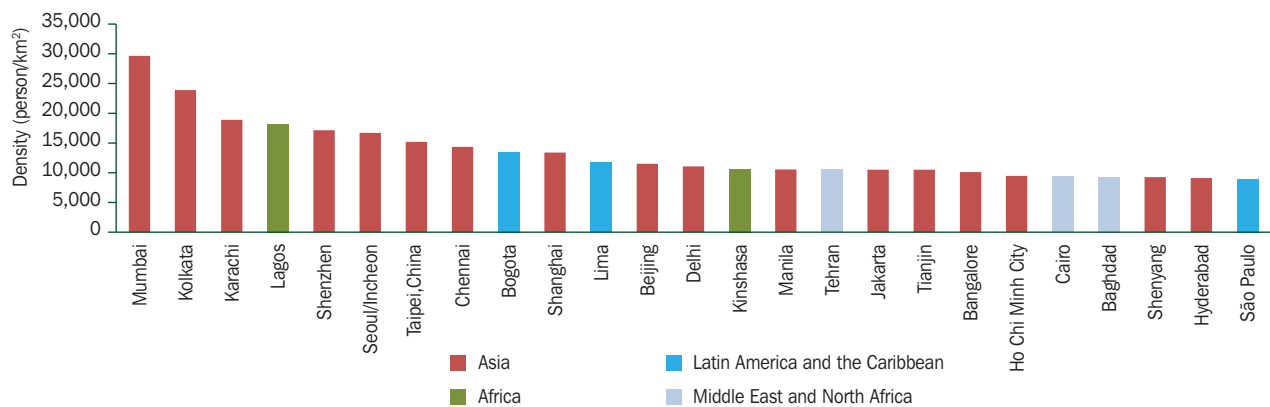
Source: ADB estimates based on UN (2012).

faster urbanization than others (Figure 10). The speed of urbanization in Bangladesh is also high.

Until 2000, the least urbanized developing subregion had always been the Pacific island countries and the most urbanized had been Central and West Asia. The difference in urbanization rates between the two subregions has been fairly stable, at about 15%. But in both subregions, urbanization has progressed slowly while Southeast, South Asia, and particularly East Asia (basically, the PRC) have been urbanizing faster.

Thus, Asia's level of urbanization started from a relatively low base compared to the rest of the world, but has been proceeding rapidly and on a vast scale. This is likely to continue at least until 2050, with an increasing formation of megacities and expansion of most cities. And, Asian cities' population densities, already high, are likely

Figure 8 **Top 25 Cities Ranked by Population Density, 2007**



km<sup>2</sup> = square kilometers  
Source: City Mayors (2007).

urban density. Kenworthy (2008) notes that wealthy Asian cities have an average density of 150 people per hectare compared to 15 in Australia, New Zealand, and the United States (US).

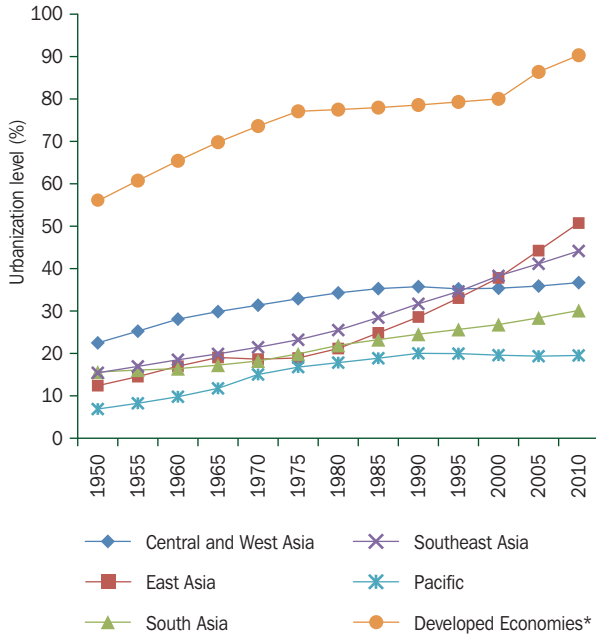
*Sixth, significant heterogeneity exists across subregions in Asia and across economies in terms of urbanization level and speed.* For example, the level of urbanization is much higher for developed countries in Asia (Japan, Australia, and New Zealand). Their level of urbanization was 90.2% in 2010, 49.6 percentage points higher than developing Asia as a whole. At the subregional level, East Asia was less urbanized than Central and West Asia and Southeast Asia until the late 1990s. Since 2005, however, East Asia has been the subregion with the highest level of urbanization, reaching 50.7% in 2010 (Figure 9). The PRC and the Republic of Korea exhibit

to increase. These prospects raise daunting issues for Asia, not least of which are the environmental implications of this massive human and economic clustering.

## Environmental Implications of Urbanization in Asia

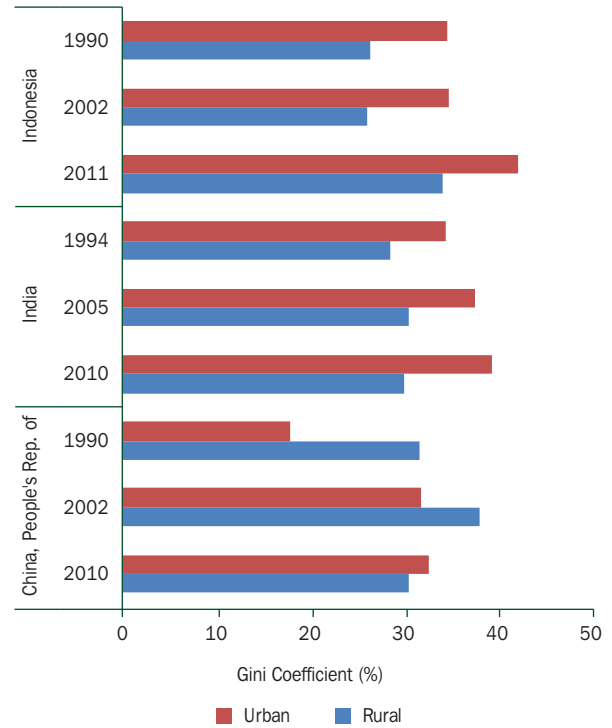
Urbanization-related challenges include high crime rates and unequal income distribution. As shown in Figure 11 and the recent Asian Development Outlook (ADB 2012b), inequality is generally greater in urban areas than in rural areas, so that urbanization can aggravate the problem of unequal income distribution. Even in the PRC, where inequality had been lower in urban than in rural areas,

Figure 9 Urbanization Levels, ADB Subregion (%)



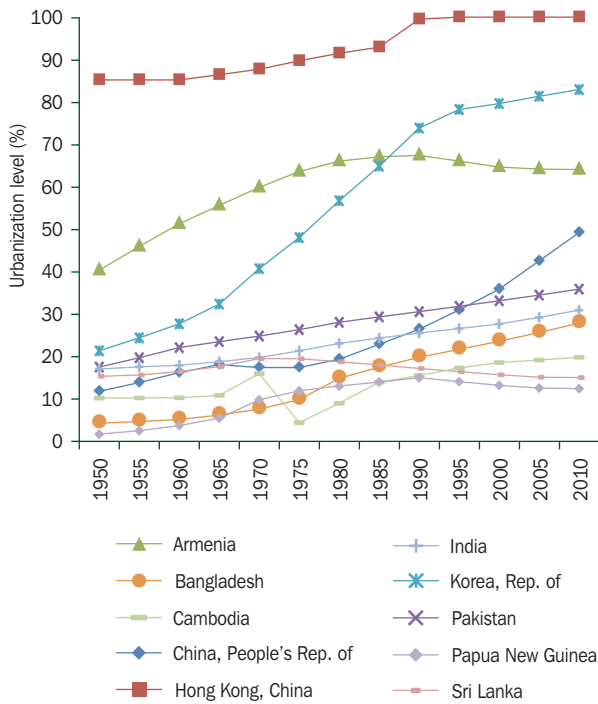
Note: \* Developed Economies include Australia, Japan, and New Zealand.  
Source: UN (2012).

Figure 11 Urban and Rural Inequality in Asia (%)



Sources: ADB (2012b) and ADB estimates.

Figure 10 Urbanization Levels, Selected Asian Economies (%)



Source: UN (2012).

urban inequality has been growing faster and surpassed rural inequality in 2008.<sup>5</sup>

New entrants to cities are likely to be poorer than incumbent residents and to live in slums or city fringes. And because the cost of criminal activity is usually lower and gains larger in cities than in the countryside, urbanization may be accompanied by elevated local crime levels. Figure 12 is a scatter plot of the theft rate (number of theft incidents per 100,000 population) and level of urbanization using worldwide data. Clearly, the two variables are positively correlated. In addition, homicide rates are higher in cities than in most of the corresponding national averages (Figure 13).<sup>6</sup>

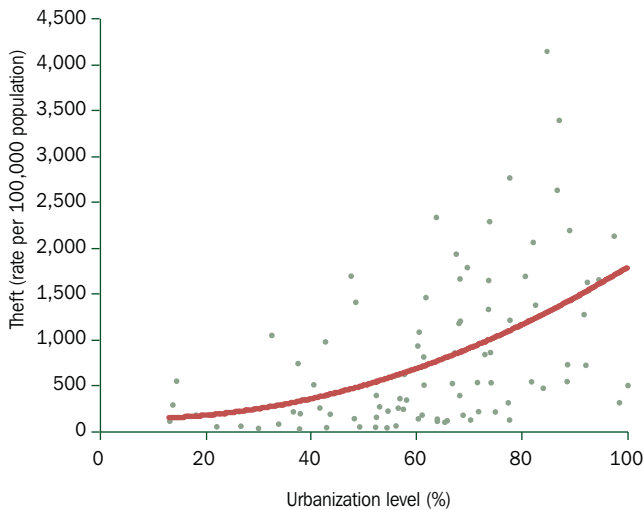
Challenges to city life are numerous and include higher costs of housing, education, and health care. This chapter will focus on environmental issues in the context of urbanization. This focus is a response to the rising importance of the environment in sustaining growth, the formidable environmental challenges faced by Asia, and the fact that the environment is a global public good and

5 The lower urban inequality in the PRC was largely due to the urban bias, which has gradually faded away but still exists (Wan and Zhang 2011).

6 Other indicators of crime than theft and homicide rates are not available for a rural-urban comparison.

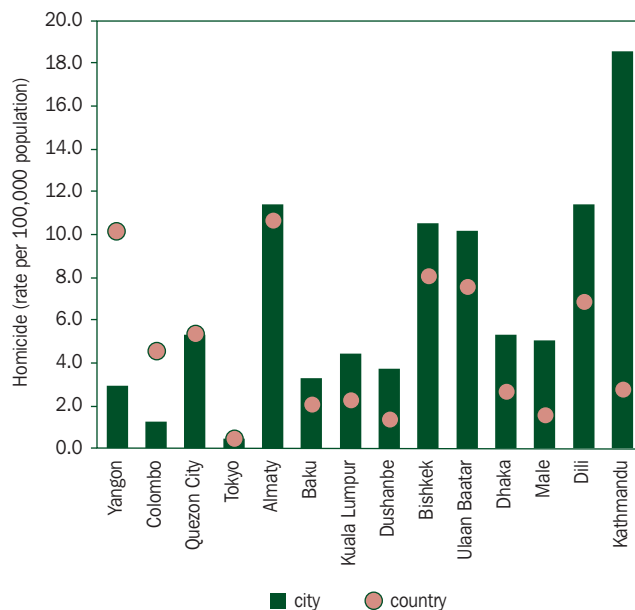
therefore part of the mandate of multilateral and regional institutions such as the Asian Development Bank (ADB). There is also a growing awareness that in future, for cities to have a competitive edge, they will have to be “green economies” (OECD 2011). Finally, while urbanization is often assumed to be associated with environmental degradation, little research has been done so far on this linkage.

Figure 12 Theft Rate versus Level of Urbanization: Global Data



Sources: UNODC (2012) and World Bank (2012).

Figure 13 Intentional Homicide Rates in Selected Countries



Source: UNODC (2012).

## Urban Air Pollution in Asia

While no two cities are the same, many of Asia’s cities face common challenges, including a sharp increase in registered vehicles, rising levels of industrial production, and (to some extent) a reliance on coal-fired power plants. These all contribute to air pollution, and in Asia, air pollution contributes to the premature death of half a million people each year (ADB 2012a).

From a public health perspective, particulate matter (PM) and carbon monoxide levels<sup>7</sup> are considered to be more associated with elevated morbidity risk than are ozone levels (Chay and Greenstone 2003, Currie and Neidell 2005). Data on PM<sub>10</sub> are available from the World Health Organization and are used to rank cities that have an average PM<sub>10</sub> level of 100 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) or higher. Of the world’s 57 most polluted cities, 34—or almost 60%—are in Asia (Figure 14).

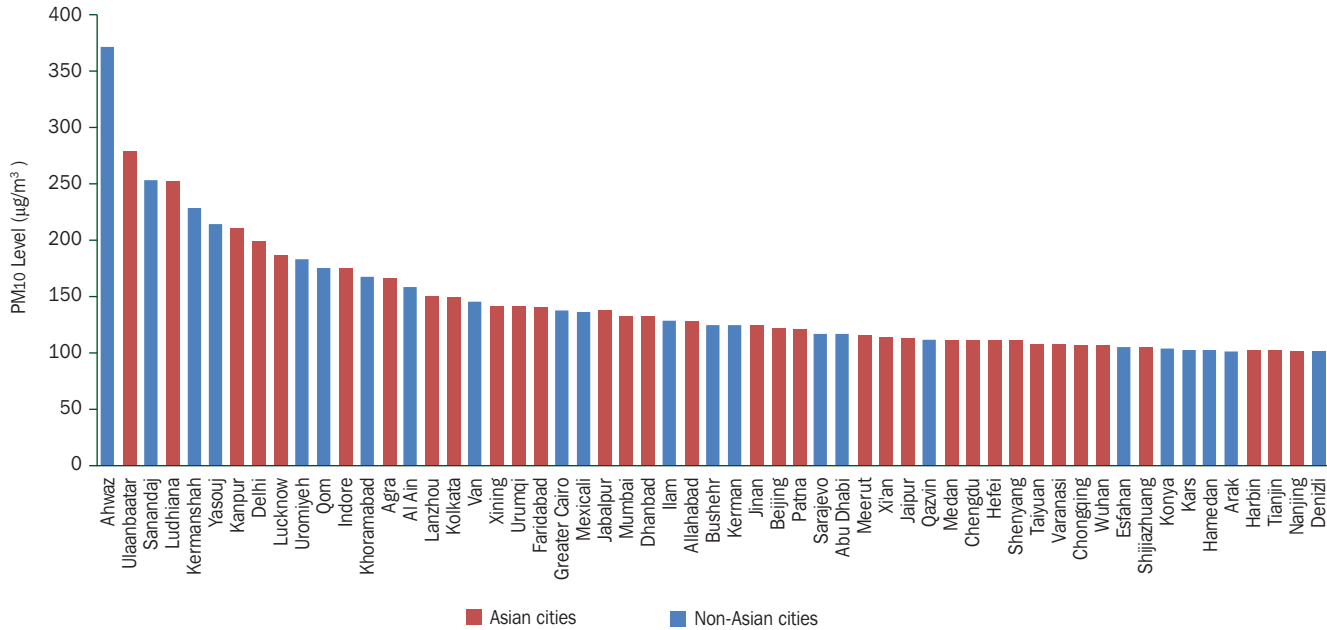
Figure 15 plots PM<sub>10</sub> kernel density using observations for Asia and non-Asian cities.<sup>8</sup> Three interesting findings can be discerned. First, the density plot for Asian cities clearly lies to the right of the non-Asian cities, indicating that many of Asia’s cities have much higher levels of pollution than cities in other regions. Second, the mode (most common value) of PM<sub>10</sub> for non-Asian cities is only about 20  $\mu\text{g}/\text{m}^3$  but is almost double that—nearly 40  $\mu\text{g}/\text{m}^3$ —on average in Asian cities. Third, if the European Union’s air quality standard of 40  $\mu\text{g}/\text{m}^3$  is used as the benchmark, less than 11% of non-Asian cities do not meet the standard but a staggering 67% of Asian cities fail to meet it.

The PRC has 12 of the world’s 20 most polluted cities (World Bank 2007a). The World Bank (2007b) reported that, in 2003, 53% of the 341 cities monitored—accounting for 58% of the PRC’s urban population—had annual average PM<sub>10</sub> levels above 100  $\mu\text{g}/\text{m}^3$ , and 21% of these cities had PM<sub>10</sub> levels above 150  $\mu\text{g}/\text{m}^3$ . Only 1% of the PRC’s urban population lives in cities that meet the European Union’s air quality standard of 40  $\mu\text{g}/\text{m}^3$ .

7 Particulate matter (PM)—also known as particulates or suspended particulate matter (SPM)—is solid matter suspended in air or liquid. PM<sub>10</sub> refers to particulate matter with diameter of 10 micrometers or less. Carbon monoxide is a colorless, odorless, and tasteless gas that is slightly lighter than air. It can be toxic to humans and animals when encountered in higher concentrations. In the atmosphere however, it is short lived and spatially variable, as it combines with oxygen to form CO<sub>2</sub> and ozone.

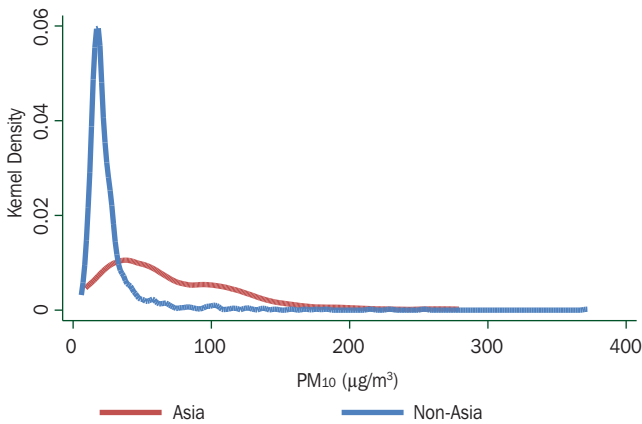
8 Loosely speaking, a kernel density plot depicts the frequency of occurrence of a variable.

Figure 14 Cities with PM10 above 100 µg/m³, 2008–2009



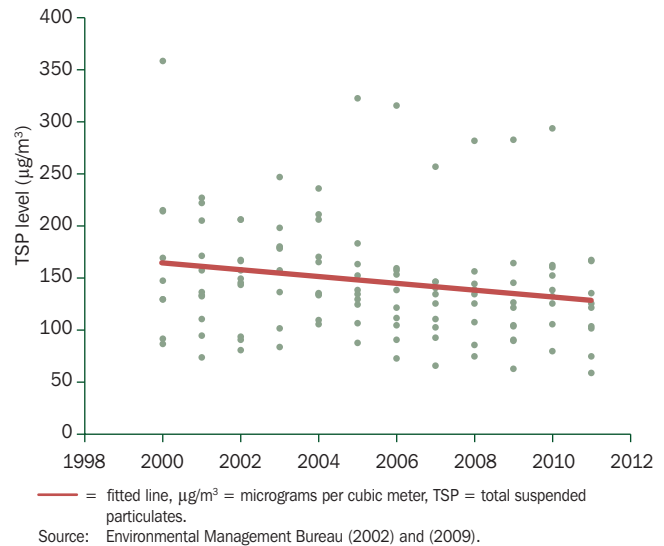
PM10 = particulate matter with diameter of 10 micrometers or less, µg/m³ = micrograms per cubic meter. Source: WHO (2012).

Figure 15 PM10 Kernel Density, 2008–2009



PM10 = particulate matter with diameter of 10 micrometers or less, µg/m³ = micrograms per cubic meter. Source: ADB estimates based on WHO (2012).

Figure 16 Total Suspended Particulates at Manila Sites



— = fitted line, µg/m³ = micrograms per cubic meter, TSP = total suspended particulates. Source: Environmental Management Bureau (2002) and (2009).

In Metropolitan Manila, depending on the year, 13 or more stations have monitored total suspended particulate (TSP) levels since 2000. Figure 16, plotting the distribution of the ambient (outdoor) pollution readings, shows that some parts of Manila have tremendously elevated TSP levels. In 2010, TSP levels were twice as high in Pasay City as in Mandaluyong City, largely due to differences in the traffic volumes. In 2011, 77% of the monitoring stations' readings exceeded the nation's air pollution standard of 90 µg/m³.

In Thailand, the Bangkok data contain observations on ambient PM10, ozone, and carbon monoxide from 1997 to 2011. Using the ambient PM10 data and a simple econometric model with fixed effects for monitoring stations, one can show that ambient ozone (from automobile exhausts) has increased by 4.3% per year in Bangkok. Thailand's State of Pollution Report 2010 also shows that the country's ambient ozone levels have increased over time. As the numbers of vehicles and residents both continue to increase, health costs can be expected to rise.

## Greenhouse Gas Emissions

Because urbanization raises per capita incomes and richer people consume more fossil fuels, urban growth and GHG emissions appear to be directly linked. As there is no global price on carbon, polluters (ranging from vehicle owners to electric power plants) face little incentive to economize on emissions. Thus, the increasing trend in GHG emissions is of utmost concern, although on a per capita basis the current level of carbon emissions in Asia is lower than that in developed countries. For example, on a per capita basis and during 2000–2008, the regional average emission for Asia grew by 97% while that for the world grew by only 18%.

Asia certainly faces enormous challenges in terms of its total volume of CO<sub>2</sub> emissions. By this criterion, three of the top five emitting countries are in Asia (Figure 17). This is not surprising, as the total volume of any pollutant is a product of population and per capita emission. While per capita emissions tend to rise over time as economies grow, the enormous population base in many Asian nations also presents a key contributor to this challenge.

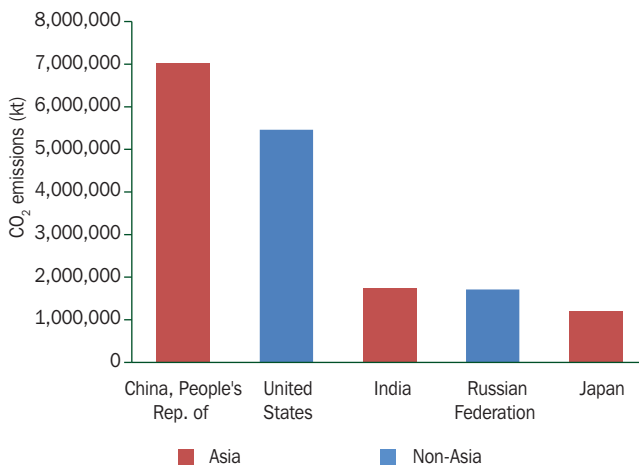
In terms of per capita CO<sub>2</sub> emissions, Figure 18 shows the time series trends for the world, the PRC, and India. The PRC's amazing growth in emissions, starting in the early 1990s and becoming more rapid from early 2000, is clear and has been concentrated in cities. If the PRC's per capita emissions were to reach the levels of the United States (US), global carbon emissions would increase by more than 50%. As India continues to grow and urbanize, its per capita emissions are likely to rise too.

The rise in the number of private vehicles and their increasing use in Asia have contributed significantly to

rising GHG emissions. The number of vehicles per 1,000 people in the PRC increased from 10 in 1998 to 37 in 2010 while in the Philippines the increase was from 9 in 1990 to 33 in 2007 (ADB 2011). Because private vehicles offer flexibility and often move faster than public buses, the demand for private vehicles will likely continue to rise as Asia's cities grow richer (Zheng et al. 2011). According to some estimates, the income elasticity of demand for vehicles is unitary. This means that a 10% increase in per capita income is associated with a 10% increase in a nation's per capita vehicle ownership rate. When combined with the high density in Asian cities, the result could be serious traffic congestion and pollution. Solutions to this high-density related congestion problem include above-ground rail projects, as in Bangkok, and underground transit, as in the PRC and Delhi (Box 1).

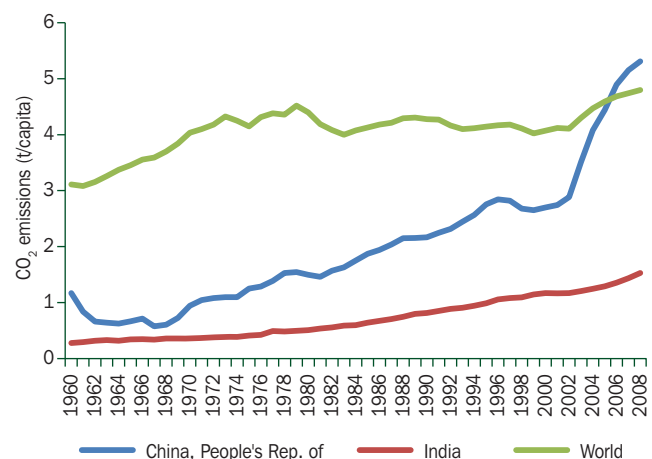
Increasing demand for electricity is another source of GHG emissions, particularly for nations that rely on coal for power. According to ADB (2011), 79% of the PRC's electricity is generated by coal, and India uses coal to generate 69% of its electricity. The carbon emissions factor of natural gas is 50% lower than that of coal, while wind and solar have zero carbon emissions factors. These enormous differences highlight how the global GHG emissions associated with electricity consumption vary depending on the energy source. Unfortunately, across Asia today, renewable sources provide only a tiny share of overall power generation, although they are becoming a dominant destination for investment in power generation (Newman and Wills 2012a, 2012b). For example, in 2006, the PRC set a 2020 target of 8% share of primary energy to come from renewable sources but reached this so quickly that they raised the target to 15% by 2020. In 2010, the PRC invested \$48.9 billion in renewables, making it the world leader in renewable energy investment (UNEP and Bloomberg New Energy Finance 2011).

Figure 17 Top 5 Countries in Total CO<sub>2</sub> Emissions in 2008



CO<sub>2</sub> = carbon dioxide, kt = kiloton.  
Source: World Bank (2012).

Figure 18 CO<sub>2</sub> Emissions (t/capita)



CO<sub>2</sub> = carbon dioxide, t = ton.  
Source: World Bank (2012).



Box 1 **Metros Moving People in Delhi and Shanghai**

Shanghai and Delhi are two Asian megacities that have built metro systems for mass transit.

**The Shanghai Metro System.** Shanghai is the largest city in the People's Republic of China, spanning approximately 120 kilometers (km) from south to north and 100 km from east to west. It has a 2009 population of 19.21 million. In the 10 years to 2000, the length of the city's roads increased by 40% and the number of cars rose to just over 1 million. By the end of 2000, Shanghai had 12,227 km of roads, 84% more than in 1985. However, as the majority of people rely on public transport, the buses were very crowded and slow, averaging only 8 km per hour.

The city invested an average of 2.9% of its gross domestic product annually during 1999–2009 in transport infrastructure, 41% of which was for constructing the Shanghai Metro. Construction started in the early 1990s and the first metro line opened in 1995. The Shanghai Metro now has 11 lines, 280 stations, and a total operating length of 420 km. The number of passengers increased almost 37% per annum from 2000 to 2005. The total passengers per day rose to

about 8 million at the end of 2010. Currently, 80% of the city's developed area is within 400 meters of a metro line and the system is now the largest in the world.

**The Delhi Metro System.** Delhi is India's largest metropolitan by area (1,483 square kilometers) and has the second largest population (14 million people) in India. It has evolved around several transport modes. During 1981–1998, Delhi's human and vehicle populations rose sharply, resulting in traffic congestion and pollution.

In response to this, the governments of India and Delhi formed the Delhi Metro Rail Corporation in 1995. Construction of the Delhi Metro started in 1998, and its first line opened in 2002, followed by the second in 2004, the third in 2005, a branch line in 2009, and two more lines in 2010. Subsequently, the lines have been extended and new lines are being constructed, including the Delhi Airport Metro Express. The network consists of six lines with a total length of 161 km with 135 stations underground, serving 1.2 million commuters every day.

Source: Newman and Matan (forthcoming).

## Access to Clean Water and Sanitation

A key determinant of a city's "greenness" is whether it can supply clean water and sanitation, and properly dispose of solid waste. Such service delivery will reduce infectious disease rates and lower infant mortality, and should translate into increased life expectancy. The challenges that Asia's poor cities now face resemble the challenges that Western cities faced in the early 20th century (Cain and Hong 2009, Cain and Rotella 2001, Ferrie and Troesken 2008). In 1880, the average urbanite in the US lived 10 years less than the average rural resident (Haines 2001). Dirty water was the primary cause, and urban growth exacerbated this problem.

The current status of water and sanitation in Asia is disturbing. By the latest estimate, almost 1.9 billion Asians are without basic sanitation, representing over 70% of the global total (ESCAP, ADB, and UNDP 2012). Only 22% of India's population had access to flush toilets in 1992 and progress in raising that share is slow (Bonu and Kim 2009). Worse still, except in Southeast Asia, all other subregions in Asia will not meet their sanitation targets as set in the Millennium Development Goals (MDGs). Given that the MDG target is merely to halve the 1990 number of people without access to water supply and sanitation by 2015, a country that had a 20% access rate in 1990 would still have 40% of its residents without basic sanitation by 2015 even if it manages to achieve the MDG target. Current projections indicate that more than 290 million people in India may still live without basic sanitation in 2015 (ESCAP, ADB, and UNDP 2012).

Turning to water, more than half (approximately 400 million) of the world's people who are deprived of safe drinking water reside in Asia. To supply water to 400 million people requires huge investments that the countries may not be able to afford. Worse still, low-income countries in the region are projected not to meet the water MDG. In many parts of Dhaka, water is supplied for only 2 hours a day, in some areas, the quality is poor and people complain of receiving straw colored, sticky, and smelly water. The situation is even worse for slum dwellers, who in many cases have no access to piped water supply even if they are willing and able to pay for it (Wan and Francisco 2009). For example, Dhaka Water and Sewerage Authority officials note that by law, water can be supplied only to legal landholders (Wahab 2003).

Further, in many Asian countries water is still heavily subsidized. Thus, it is questionable whether the current water supply is economically sustainable even for people who already have gained access. And rivers in Asia are heavily polluted, which adds to the growing scarcity of freshwater sources.

Garbage collection in Asia is another major challenge, especially because people who earn more usually consume and dispose of more (Beede and Bloom 1995). Richer cities may be able to invest in collecting and disposing of solid waste but poorer cities often lack the resources to do so. For example, in some of India's cities, an estimated 30%–35% of total waste remains uncollected from the city roads (Sridhar and Mathur 2009). Kolkata and Mumbai dump or burn all their garbage in the open.

Chennai and Delhi dispose 100% and 95%, respectively, of their waste in sanitary landfills (Zhu et al. 2008).

Although a higher proportion of urban residents have access to these basic services than do rural residents, Asian cities are hard pressed to raise funds and ensure such service delivery to their rapidly expanding populations.

## Resilience to Climate Change

Urbanization increases vulnerability because life and asset losses are much larger in cities than in the countryside when a disaster strikes. In this context, the issue of climate change becomes particularly relevant to cities. Climate change is recognized to have caused extreme weather and rising sea levels. While there are many unknowns about the extent and timing of these impacts, the consensus is that the challenge is real and imminent, and that different cities will face different but urgent challenges (Kahn 2010).

Among the consequences of climate change are an increase in the intensity and frequency of floods and sea level rise. Poorer cities that are below sea level are the most susceptible. This is especially relevant for Asian nations such as Bangladesh and the Pacific island countries, although data for the latter are often unavailable. Many Asian cities, and especially some megacities, have been built in the deltas of major rivers where ports could link the cities to the global economy. So it is not surprising that many Asian cities are flood prone. Some such cities may have extensive experience dealing with floods. For example, Dhaka has an elaborate set of mud banks for protection. But increased flooding induced by climate change may well push these cities' infrastructures beyond their current capacities, as occurred in Bangkok in late 2011. Developing further coastal engineering protection will place an increasing burden on the resources of such cities.

In 2000, 18% of Asian urbanites were at risk of coastal flooding (Table 2), versus 11% for Africa, 8% for Latin America, and 7% for Europe. In terms of total urban population, 251 million Asians were exposed to this risk, compared with 40 million Europeans, 32 million Africans, and 24 million Latin Americans. Similar high comparative proportions of total and urban land are found in low-lying coastal areas of Asia relative to other continents. These areas are not only at greater risk of future sea level rise, but also of coastal flooding arising from more frequent and intense storms. (Box 2 defines inland and coastal flooding and estimation methods.)

Table 2 Urban Population at Risk of Coastal Flooding by Region, 2000

Region	Total Urban Population (million)	Urban Population at Risk (million)	Share of Population at Risk (%)	Total Urban Land Area ('000 km <sup>2</sup> )	Urban Land Area at Risk ('000 km <sup>2</sup> )	Share of Land Area at Risk (%)
Africa	280	32	11	310	18	6
Asia	1,390	251	18	1,167	129	11
Latin America	312	24	8	663	42	6
Europe	571	40	7	800	56	7

km<sup>2</sup> = square kilometers

Source: ADB estimates based on McGranahan et al. (2007).

### Box 2 Estimating Risks of Inland and Coastal Flooding

Coastal flooding risks are determined by the number of persons (or land area) within a low-elevation coastal zone (LE CZ) rather than historic or projected data on actual coastal flood events. The LE CZ is defined as land area contiguous with the coastline up to a 10-meter rise elevation. While sea level rise is not expected to reach 10 meters above the current mid-tide elevations, Asia has experienced two devastating tsunamis in the last 10 years. Meanwhile, sea level rise and storm surges can certainly cause damage to people living well above the high-water level, through saline intrusion into the groundwater, for example. However, the principal reason for choosing this elevation is that estimates based on elevations below 10 meters could not be considered globally reliable, particularly in some types of coastal areas, such as those characterized by mountainous bays.

Exposure to inland flooding is estimated from the global flood frequency dataset developed for the 2009 Global Assessment Report on Risk Reduction (GAR) (UNISDR 2009). In contrast to the LE CZ estimates, the GAR data are based on actual flood frequency events. Modeling is used to fill in missing data and to transform the extents of flood events into a single gridded data format. The flood risk is measured by the extent of exposure of land or persons to flooding at least two times within a 100-year period. Both the LE CZ and GAR data are then overlaid with the Global Rural–Urban Mapping Project (GRUMP) data to estimate population (as well as land area) within each urban area at risk of flooding.

Sources: Balk and Montgomery (2012), McGranahan et al. (2007).

Using the proportion of urban population that is exposed to flooding risks as a measure of vulnerability, vulnerability to inland or coastal flooding differs significantly across subregions and countries. In terms of coastal flooding (Table 3), the region's vulnerability is 19.6%, with Southeast Asia being most vulnerable (36.1%) followed by East Asia (17.5%) and South Asia (14.3%). At the country level, the most vulnerable economies are the Maldives (100%), Viet Nam (73.9%), Thailand (60%), and Bangladesh (50.3%).

Table 3 Population and Area at Risk of Coastal Flooding, 2000

Economy	Urban Population at Flood Risk	% Population at Flood Risk	Urban Land Area (km <sup>2</sup> ) at Flood Risk	% Urban Land Area at Flood Risk
<b>Central and West Asia</b>				
Georgia	230,982	7.5	159	4.9
Pakistan	2,227,119	4.6	364	1.5
<b>Subtotal</b>	<b>2,458,101</b>	<b>4.8</b>	<b>523</b>	<b>1.9</b>
<b>East Asia</b>				
China, People's Rep. of	78,277,824	18.5	33,243	13.4
Hong Kong, China	811,925	14.1	104	14.2
Korea, Rep. of	2,034,832	5.3	1,369	7.4
Taipei, China	3,022,216	21.4	2,604	21.3
<b>Subtotal</b>	<b>84,146,796</b>	<b>17.5</b>	<b>37,320</b>	<b>13.4</b>
<b>South Asia</b>				
Bangladesh	15,428,668	50.3	4,522	45.9
India	31,515,286	10.5	11,441	5.9
Maldives	6,421	100.0	3	100.0
Sri Lanka	961,977	22.8	744	22.5
<b>Subtotal</b>	<b>47,912,352</b>	<b>14.3</b>	<b>16,710</b>	<b>8.1</b>
<b>Southeast Asia</b>				
Brunei Darussalam	24,965	11.2	256	24.2
Cambodia	281,944	15.0	137	21.3
Indonesia	22,720,666	27.9	8,176	26.4
Malaysia	3,687,052	26.5	3,775	28.1
Myanmar	4,512,823	36.2	1,087	24.2
Philippines	6,807,578	27.4	1,872	22.8
Singapore	550,057	14.0	62	12.0
Thailand	12,471,874	60.0	9,207	34.8
Viet Nam	12,862,429	73.9	3,877	66.4
<b>Subtotal</b>	<b>63,919,387</b>	<b>36.1</b>	<b>28,448</b>	<b>31.1</b>
<b>The Pacific</b>				
Timor-Leste	1,369	4.2	7	5.3
<b>Developed Member Economy</b>				
Japan	29,022,184	25.7	17,322.81	17.5
<b>Asia</b>	<b>227,460,189</b>	<b>19.6</b>	<b>100,332</b>	<b>14.3</b>

km<sup>2</sup> = square kilometers

Note: Global Rural-Urban Mapping Project (GRUMP) estimates for urban population and urban areas are used in the computation of percentages of population and area at risk (<http://sedac.ciesin.columbia.edu/gpw>).

Source: Balk and Montgomery (2012).

Turning to inland flooding (Table 4), the overall vulnerability for Asia is 15.1%, moderately lower than the coastal flooding vulnerability. East Asia is most vulnerable (19.8%), followed by Southeast Asia (14.7%) and South Asia (14.2%). At the country level, about three-quarters of the urban population of Cambodia are at risk of inland flooding. The vulnerability is 38.6% for Viet Nam, 35.7% for Bangladesh, 34% for the Lao PDR, and 29% for Thailand. One-fifth of the urban population of the PRC and 12% of Indian's urbanites, in total more than 120 million people, are at risk of inland flooding. Even landlocked countries have substantial vulnerability: Tajikistan (16.4%), Bhutan (14.5%), Afghanistan (12.5%), and Kyrgyz Republic (12%).

Table 4 Population and Area at Risk of Inland Flooding, 2000

Economy	Urban Population at Flood Risk	% Population at Flood Risk	Urban Land Area (km <sup>2</sup> ) at Flood Risk	% Urban Land Area at Flood Risk
<b>Central and West Asia</b>				
Afghanistan	540,078	12.5	430	23.8
Armenia	198,941	7.4	192	12.9
Azerbaijan	254,474	6.0	526	9.1
Georgia	319,048	10.4	369	11.4
Kazakhstan	860,190	9.8	1,561	13.9
Kyrgyz Republic	189,534	12.2	367	12.6
Pakistan	3,092,548	6.4	2,230	9.0
Tajikistan	286,229	16.4	408	11.6
Turmenistan	64,777	3.2	620	11.1
Uzbekistan	813,736	8.5	1,615	10.9
<b>Subtotal</b>	<b>6,619,555</b>	<b>7.7</b>	<b>8,318</b>	<b>11.1</b>
<b>East Asia</b>				
China, People's Rep. of	90,700,145	21.4	45,610	18.4
Korea, Rep. of	2,920,496	7.6	1,010	5.5
Mongolia	176,968	12.2	190	16.5
Taipei, China	890,354	6.3	668	5.5
<b>Subtotal</b>	<b>94,510,996</b>	<b>19.8</b>	<b>47,288</b>	<b>17.0</b>
<b>South Asia</b>				
Bangladesh	10,954,609	35.7	3,721	37.8
Bhutan	21,504	14.5	30	15.5
India	36,056,326	12.0	25,564	13.3
Nepal	160,508	5.9	214	8.5
Sri Lanka	792,244	18.8	442	13.4
<b>Subtotal</b>	<b>47,985,191</b>	<b>14.2</b>	<b>29,971</b>	<b>14.4</b>
<b>Southeast Asia</b>				
Brunei Darussalam	1,634	0.7	14	1.3
Cambodia	1,428,121	76.0	641	100.0
Indonesia	4,394,972	5.4	2,417	7.8
Lao PDR	302,825	34.0	276	26.1
Malaysia	495,254	3.6	749	5.6
Myanmar	2,361,353	19.0	1,050	23.4
Philippines	3,713,398	14.9	968	11.8
Thailand	6,070,291	29.2	7,002	26.5
Viet Nam	6,716,973	38.6	1,893	32.4
<b>Subtotal</b>	<b>25,484,820</b>	<b>14.7</b>	<b>15,010</b>	<b>16.3</b>
<b>The Pacific</b>				
Timor-Leste	869	2.7	6	4.6
<b>Developed Member Economy</b>				
Japan	4,705,880	4.2	5,016	5.1
<b>Asia</b>	<b>179,307,311</b>	<b>15.1</b>	<b>105,610</b>	<b>14.0</b>

km<sup>2</sup> = square kilometers, Lao PDR = Lao People's Democratic Republic

Note: Global Rural-Urban Mapping Project (GRUMP) estimates for urban population and urban areas are used in the computation of percentages of population and area at risk (<http://sedac.ciesin.columbia.edu/gpw>).

Source: Balk and Montgomery (2012).

Tables 5 and 6 list the 40 most vulnerable cities in Asia that have 1 million population or more (as measured in 2000). Focusing on coastal flooding (Table 5), half of the 40 most vulnerable cities are in the PRC. Among the 11 cities with a vulnerability of more than 90%, 8 are in the PRC, including Shanghai and Tianjin—the PRC's largest cities. The other three are Bangkok in Thailand, Khulna

Economy	City	Population at Flood Risk ('000)	% of City Population	City Area at Flood Risk (km <sup>2</sup> )	% of Area at Risk
China, People's Rep. of	Tianjin	5,500	100.0	2081	100.0
China, People's Rep. of	Panjin	1,000	100.0	690	100.0
Bangladesh	Khulna	1,100	99.9	394	99.8
China, People's Rep. of	Nantong	1,000	99.8	286	99.9
China, People's Rep. of	Changzhou	2,000	99.0	362	99.0
China, People's Rep. of	Jiangyin	1,200	96.8	492	96.8
China, People's Rep. of	Suzhou	1,300	95.8	368	91.2
Indonesia	Palembang	1,300	94.2	473	89.5
Thailand	Bangkok	8,800	93.3	4805	80.2
China, People's Rep. of	Wuxi	1,300	91.1	397	91.0
China, People's Rep. of	Shanghai	14,000	90.8	2416	98.2
India	Kolkata	14,000	89.0	1441	62.9
China, People's Rep. of	Ningbo	1,700	85.6	779	85.6
Indonesia	Ujung Pandang	1,200	85.4	295	68.7
Viet Nam	Ho Chi Minh	4,400	79.3	890	72.6
Indonesia	Surabaya	3,800	76.3	777	55.4
Bangladesh	Chittagong	2,400	72.5	517	61.7
Japan	Niigata	1,000	68.5	1244	49.9
Myanmar	Yangon City	2,800	66.9	587	69.9
China, People's Rep. of	Wuhu	782	66.3	210	72.4
India	Palwancha	808	66.2	937	67.6
China, People's Rep. of	Taizhou	1,200	65.3	423	66.4
China, People's Rep. of	Shantou	3,600	63.8	1084	63.6
India	Surat	2,200	61.0	300	19.2
Indonesia	Pekalongan	892	59.2	335	50.3
India	Kochi	861	57.3	260	44.6
China, People's Rep. of	Hangzhou	3,100	55.4	931	62.2
Bangladesh	Dhaka	5,000	55.0	874	61.5
China, People's Rep. of	Wenzhou	2,000	53.8	755	53.7
Malaysia	Georgetown	641	50.8	456	43.0
China, People's Rep. of	Putian	631	49.2	176	39.1
China, People's Rep. of	Huaiyin	540	48.7	203	46.9
Indonesia	Tegal	548	47.2	175	41.4
India	Mumbai	8,100	46.3	848	40.1
China, People's Rep. of	Dandong	463	42.9	219	51.9
China, People's Rep. of	Yingkou	657	42.7	431	42.7
China, People's Rep. of	Haikou	634	41.4	246	41.1
Viet Nam	Hanoi	1,100	40.6	429	64.5
China, People's Rep. of	Shenzhen	11,000	38.2	4319	49.2
Indonesia	Semarang	791	37.9	344	42.2

km<sup>2</sup> = square kilometers

Source: Balk and Montgomery (2012).

in Bangladesh, and Palembang in Indonesia. Another 13 cities have vulnerability levels between 60% and 89%, notably including Kolkata and Ho Chi Minh City. Turning to inland flooding at the city level (Table 6), again the vulnerability level is lower than that for coastal flooding. The top three cities are Phnom Penh (99%), Wuhan (82%), and Palembang (80%). Of the top 40 most vulnerable cities, 19 are in the PRC. Some of the large cities that are vulnerable to inland flooding include Dhaka (60%), Ho Chi Minh City (50%), and Bangkok (46%).

Figure 19 shows clearly that coastal flooding is more concentrated than inland flooding. Both are serious in South Asia, Southeast Asia, and the PRC. Several megacities face high vulnerability to coastal flooding and moderate vulnerability to inland flooding at the same

Economy	City	Population at Flood Risk ('000)	% of City Population at Risk	City Area at Flood Risk (km <sup>2</sup> )	% of Area at Risk
Cambodia	Phnom Penh	988	98.5	204	98.8
China, People's Rep. of	Wuhan	5300	81.8	956	81.8
Indonesia	Palembang	1100	80.2	257	48.6
India	Patna	1100	72.4	436	72.3
Bangladesh	Dhaka	5400	59.7	680	47.9
China, People's Rep. of	Nanjing	2200	56.0	749	55.6
Viet Nam	Ho Chi Minh	2800	50.4	306	25.0
China, People's Rep. of	Tianjin	2800	50.1	795	38.2
China, People's Rep. of	Huangshi	624	49.6	170	45.5
China, People's Rep. of	Huainan	614	49.5	277	49.4
China, People's Rep. of	Wuhu	552	46.8	140	48.4
Thailand	Bangkok	4400	46.2	2165	36.1
China, People's Rep. of	Bangbu	510	44.0	198	44.5
India	Guwahati	507	43.8	159	34.6
India	Allahabad	665	42.2	230	43.2
Myanmar	Mandalay	477	40.2	167	41.4
China, People's Rep. of	Panjin	400	38.3	208	30.1
China, People's Rep. of	Changsha	1200	37.2	187	28.0
Bangladesh	Khulna	419	37.0	131	33.1
India	Vijayawada	546	36.0	141	21.4
Viet Nam	Hanoi	893	33.2	252	38.0
India	Varanasi	568	32.6	211	33.6
Indonesia	Surakarta	399	32.6	96	24.1
China, People's Rep. of	Nanning	440	30.4	173	30.4
China, People's Rep. of	Hengyang	307	28.6	94	28.1
India	Kolhapur	746	28.6	1035	29.2
China, People's Rep. of	Xinxiang	457	27.7	146	23.4
China, People's Rep. of	Nanchang	742	27.1	196	24.6
China, People's Rep. of	Shanghai	3700	24.5	292	11.9
Korea, Rep. of	Pusan	1200	24.5	196	12.6
India	Bhubaneswar	285	23.4	141	22.2
India	Palacole	283	23.2	385	27.8
China, People's Rep. of	Yichang	265	22.8	137	20.2
China, People's Rep. of	Qiqiha'er	286	22.0	110	22.0
India	Kanpur	312	21.5	171	20.5
China, People's Rep. of	Harbin	740	21.1	270	22.0
China, People's Rep. of	Luoyang	348	20.6	93	20.4
Philippines	Quezon City	2900	20.4	198	9.1
China, People's Rep. of	Jinan	558	20.3	156	20.2
Bangladesh	Chittagong	664	20.2	104	12.4

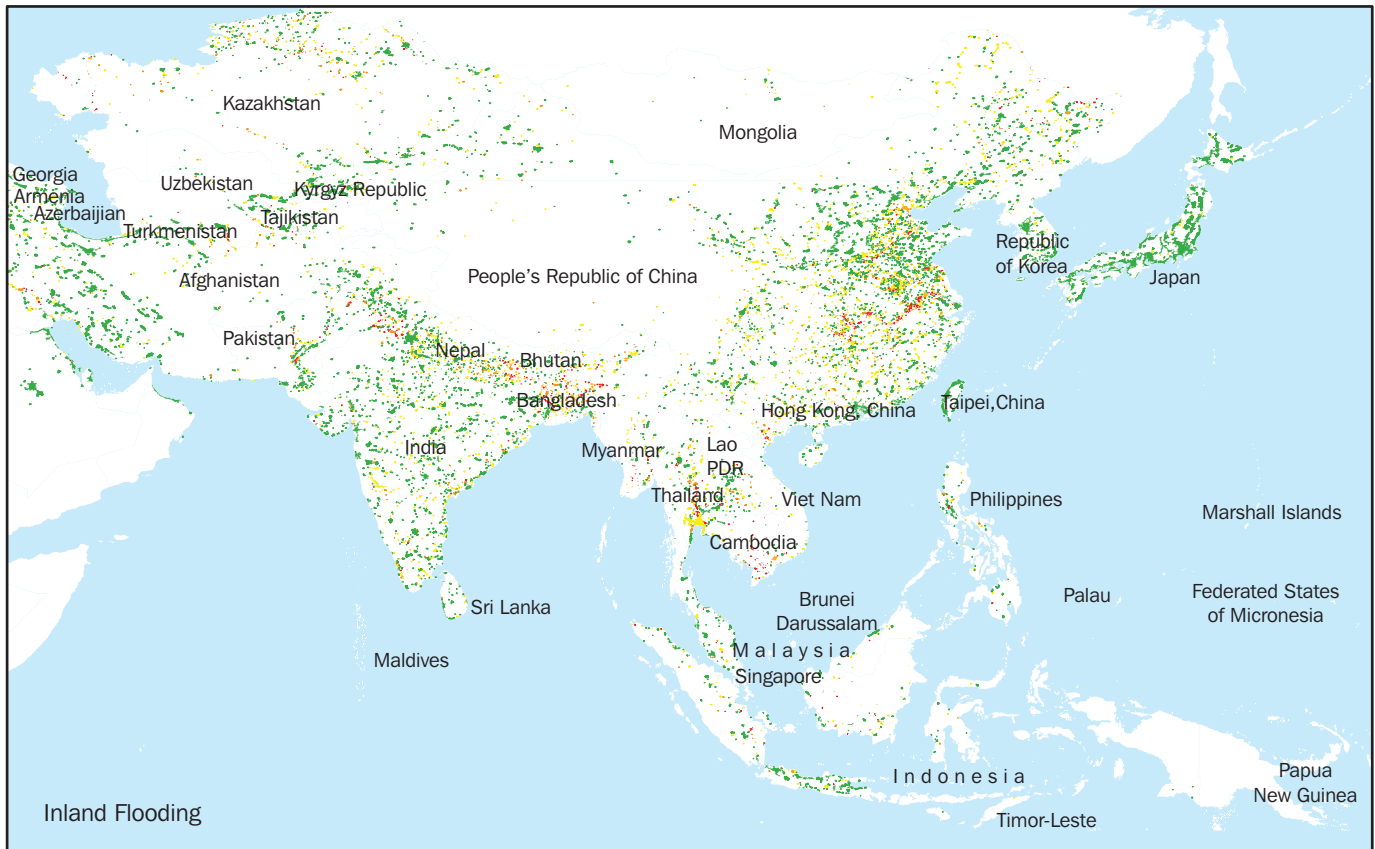
km<sup>2</sup> = square kilometers

Source: Balk and Montgomery (2012).

time, such as Kolkata (89% coastal, 15% inland) and Shanghai (91% coastal, 25% inland). A number of large cities feature more than 50% of vulnerability to both type of flooding: Dhaka, Bangladesh; Ho Chi Minh City, Viet Nam; Palembang, Indonesia; and Tianjin, the PRC.

Asia has more than 750 urban settlements (of at least 5,000 people, most much larger), the population of which is fully in low-lying zones with 100% vulnerability to coastal flooding, and about half as many with 100% vulnerability to inland flooding. These smaller cities and towns are especially noteworthy because their populations are growing fast. Further, some of them are close to vulnerable large cities. Agglomeration economies have many benefits for growth, but any flood risks they share need to be accounted for in planning.

Figure 19 Vulnerability to Inland (top) and Coastal (bottom) Flooding



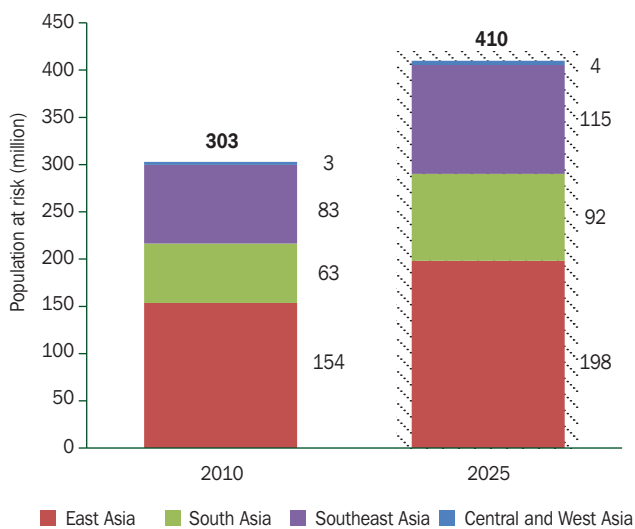
Lao PDR = Lao People's Democratic Republic.  
 Source: Balk and Montgomery (2012).

Proportion of Asian City Populations Affected by Flooding

0%–25%	26%–50%	51%–75%	76%–100%
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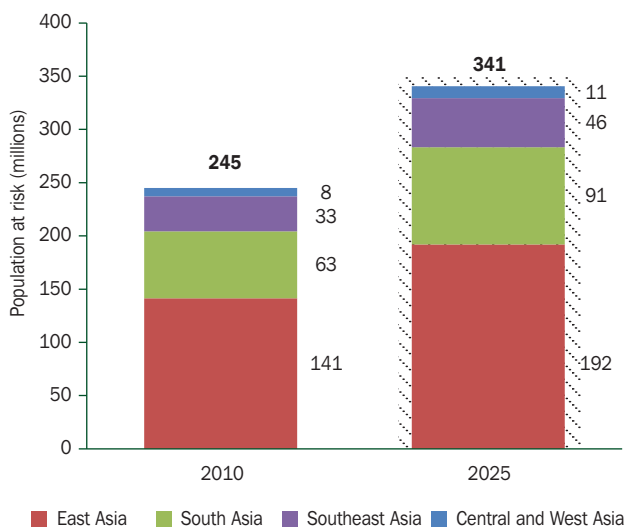
The size of population affected by flooding risks in Asia is enormous. A study commissioned by ADB (Balk and Montgomery, 2012) estimates that over 303 million Asian urbanites were at risk of coastal flooding in 2010 and this is projected to increase to 410 million in 2025 (Figure 20). In terms of inland flooding, about 245 million urban Asians were found to be at risk in 2010 and by 2025 this number will reach 341 million (Figure 21). While it is not possible to predict the damage such floods will do to property or to predict the loss of life, poor cities will face greater challenges than rich ones in adapting to this new reality.

Figure 20 Population at Risk of Coastal Flooding



Source: Balk and Montgomery (2012).

Figure 21 Population at Risk of Inland Flooding



Source: Balk and Montgomery (2012).

## Loss of Natural Ecosystems and Amenities

The loss of biodiversity in the Asian region has been well documented as urbanization proceeds (Millennium Ecosystem Assessment 2005). Asian cities are much more densely populated than most other cities and hence do not take up proportionately as much rural land and natural ecosystems. But their densities provide less opportunity for green spaces within the cities. Thus, many Asian cities are struggling to provide sufficient natural amenities—access to “green spaces” for environmental and human health, rivers, parks and wildlife corridors; green space for recreation-related activities; and green elements in the urban landscape. The resolution of this issue is being addressed with new design approaches and technologies to enable both greater biodiversity and natural amenities. One of these approaches is “biophilic urbanism” (Newman, Beatley, and Boyer 2008). A biophilic city brings landscaping into and onto every element of the built environment, such as buildings, walls, and roads (Beatley 2010).

## Urban Slums and Urban Poverty

Asia has the largest share of the world’s slum-dwelling population. As noted earlier, in 2010 the region was home to 506 million slum dwellers, more than 61% of the world’s total. Some subregions within Asia are far worse affected than others. East and Southeast Asia harbor 55% of the slum dwellers in the region, and South Asia alone hosts almost 38% of the region’s slum dwellers (UN-HABITAT 2008).

In many low- and middle-income nations, urban poverty is growing compared to rural poverty. Urban residents are more dependent on cash incomes to meet their essential needs than rural residents, and income poverty is compounded by inadequate and expensive accommodation, limited access to basic infrastructure and services, exposure to environmental hazards, and high rates of crime and violence.

## Asia’s Environmental Challenges: The Environmental Kuznets Curve

In summary, Asia is already facing tremendous urbanization-related challenges. As far as the environment is concerned, air pollution is serious and GHG emissions have been increasing. Natural amenities are either lost or must be compensated for as cities grow. Pressures are mounting to provide water, sanitation, and waste disposal to very fast growing urban populations. And cities are becoming more vulnerable.

Worse still, most of the special features of Asia's urbanization highlighted in this chapter's first main section exacerbate the environmental challenges. First, a low level of urbanization implies that Asia still has some way to go in dealing with these challenges. Ignoring or deferring action on issues such as environmental degradation is not an option because it risks consequences in the near term and vastly greater expenses in the medium to long run. Second, the fast pace of urbanization means little time for adjustment or learning. Many countries have been insufficiently prepared for the changes urbanization requires in urban planning, development of appropriate skills, and urban financing. Third, bigger cities are certainly harder to manage and more of them can only add to the challenges as Asia's megacities expand in population and grow in numbers. Finally, high density makes cities more vulnerable to catastrophic events and disease. Especially in poor cities such as Delhi, Dhaka, Wuhan, and those in the Pacific island countries, such events can mean serious loss of lives and assets (ADB 2012c).

To gauge the environmental outlook as Asia continues its growth, the Environmental Kuznets Curve or EKC is a useful tool (Box 3). While there are alternative views regarding the theoretical foundation and empirical robustness of the EKC, many studies have found an inverted U-shape relationship between environmental indicators and GDP level. Grossman and Krueger (1995) and De Bruyn (1997) state that the inverted U-shape is driven by a combination of forces: the level of output or scale of economic activity (scale effect); the composition of output (structural effect); and the state of technology (technical effect). Holding everything else constant, increasing output leads to more environmental damage; shifting resources and production to less-polluting or less-emitting industries such as services helps improve environment; and finally technology advance is beneficial to environment. As different countries experience or prioritize different forces at different development stages, the EKC naturally differs between countries and periods. Underlying the priority setting are personal and institutional preferences for environmental quality versus material outputs.

Not only does the EKC differ across countries and time, it also differs with various environmental indicators. Typically, local pollutants are more likely to display an inverted U shape relation with income, while global impacts such as CO<sub>2</sub> are less likely to do so. This is understandable as both ordinary citizens and policy makers are likely to consider local impacts as more important than global ones.

### Box 3 The Environmental Kuznets Curve

The Kuznets Curve (first postulated by Nobel Laureate Simon Kuznets) hypothesizes that economic inequality initially rises as an economy takes off and then stabilizes, but after reaching a certain turning point will decline with further development, producing an inverted U pattern between inequality and the level of development.

Grossman and Krueger (1995) replaced the variable of inequality with environmental indicators in the same setting and also found an inverted U curve, which is termed the Environmental Kuznets Curve (EKC). To model the EKC, one typically estimates the following econometric model:

$$\text{Ln ENV} = \beta_1 + \beta_2 \text{Ln GDP} + \beta_3 (\text{Ln GDP})^2 + u$$

where  $\text{Ln}$  is the natural logarithm,  $\text{ENV}$  is an environmental indicator such as PM<sub>10</sub> or CO<sub>2</sub>,  $u$  is the usual disturbance term, and  $\beta_1$ – $\beta_3$  are parameters to be estimated. The inverted U-shaped EKC is obtained when  $\beta_2 > 0$  and  $\beta_3 < 0$ .

The shape conforms to the observation that the world's poorest and richest nations have relatively better environments than the middle-income countries. The peaks of the curves vary across pollutants. For some localized pollution, the level often decreases with growth, depicting a linear or half-U shape. This does not reject the EKC's validity, as pollution must have increased in the past, but early data are not available to show this. Similarly, for nonlocal pollution such as CO<sub>2</sub>, the turning points are likely to occur at high incomes. A large literature on EKC exists, see Brock and Taylor (2005).

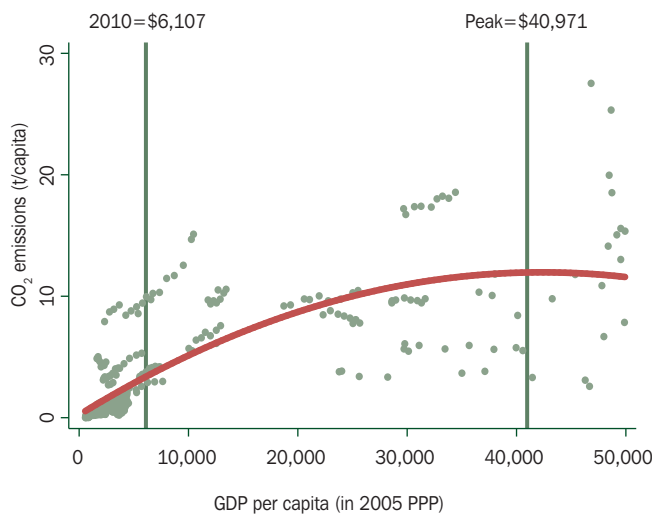
Sources: Brock and Taylor (2005), Grossman and Krueger (1995).

Consequently, the peaks of the inverted-U curves are found to correspond with significantly different income levels. For example, the sulfur emissions peak corresponds with income levels ranging from \$3,137 to \$101,166 at 1990 prices (Stern 2003), whereas CO<sub>2</sub> peaks correspond with \$19,100 (Selden and Song 1995) or \$25,100 (Cole et al. 1997).

Where does Asia stand on the EKC? If the findings cited above are used to make inferences, Asia is still on the rising side of the curve, as the average income in Asia is roughly \$3,900 at 1990 prices. At the current stage of Asia's development, millions of people move to cities and firms locate there to employ them. The sheer scale of activities associated with urbanization and industrialization (such as transport, building construction, garbage and waste disposal, and power generation) could contribute to environmental degradation. Thus, in the absence of appropriate interventions, Asia's environment is likely to become worse before it gets better.

To properly assess the environmental outlook for Asia, it is necessary to estimate Asia's EKC. Using data from the World Development Indicators, Figure 22 presents a scatter plot of per capita GDP against per capita CO<sub>2</sub> emissions. The trend line clearly resembles a standard EKC. To formally estimate an EKC for Asia, 374 observations from 42 ADB members were used to produce the modeling results in Table 7. Based on this model, the peak of the inverted U-curve corresponds to a GDP level of \$40,971 (at 2005 price levels). Clearly, the GDP per capita of most developing Asian countries is far from the "CO<sub>2</sub> turning point."

Figure 22 **Scatterplot of CO<sub>2</sub> Emissions (t/capita) and GDP Per Capita (in 2005 PPP)**



CO<sub>2</sub> = carbon dioxide, GDP = gross domestic product, PPP = purchasing power parity, t = ton.  
Source: ADB estimates based on World Bank (2012).

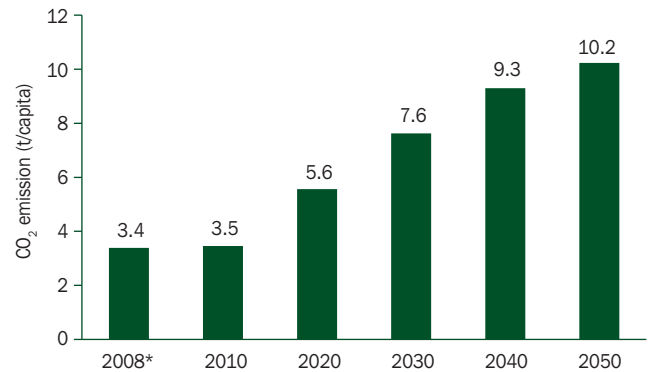
Table 7 **The Environmental Kuznets Curve for Asia**

Independent Variable	Coefficient	Standard Error
Ln GDP per capita	5.48***	0.502
(Ln GDP per capita) <sup>2</sup>	-0.251***	0.029
Constant	-27.54***	2.169
Observations	374	
R <sup>2</sup>	0.753	

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%  
GDP = gross domestic product, Ln = natural logarithm  
Source: ADB estimates.

Using the estimated EKC, the future level of per capita CO<sub>2</sub> can be simulated using GDP projections of Kohli, Sharma, and Sood (2011). Figure 23 presents the "business-as-usual" scenarios: per capita CO<sub>2</sub> would rise from the 2008 level of 3.4 tons per capita to 7.6 tons in 2030 and further to 10.2 tons in 2050. These scenarios imply a disastrous future for Asia and the globe. Clearly, action is needed and interventions must be found and implemented.

Figure 23 **Projected Per Capita CO<sub>2</sub> Emissions based on Estimated EKC**



CO<sub>2</sub> = carbon dioxide, EKC = environmental Kuznets curve, t = ton.  
\* based on average CO<sub>2</sub> emissions per capita of the sample.  
Source: ADB estimates.

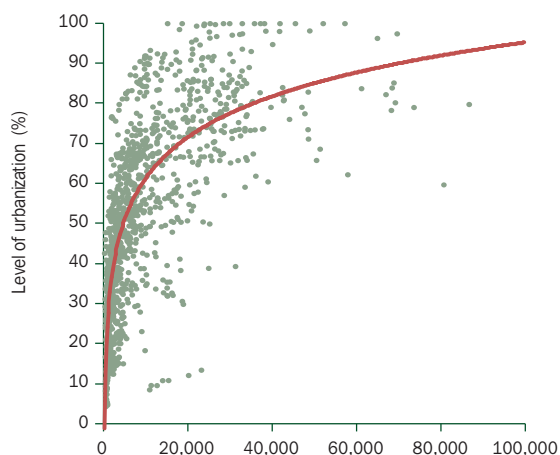
## The Environment–Urbanization Nexus in Asia

The conventional EKC is a relationship between GDP and an environmental indicator. Owing to the positive correlation between urbanization and GDP (Figure 24), the EKC could be used to infer that urbanization in Asia may lead to environmental degradation. However, this inference is problematic as the urbanization–GDP curve is far from a good fit. In reality, a country can achieve the same level of per capita GDP with different levels of urbanization. On the other hand, countries with the same level of urbanization can have quite different GDPs per capita. For example, many countries in Sub-Saharan Africa have been as urbanized as those in Asia for many years, yet they have been much poorer. For decades, the urbanization level in Latin America was as high as that in Europe, but Europe always enjoyed higher income. As shown in Figure 24, there are vast deviations of data from the fitted lines.

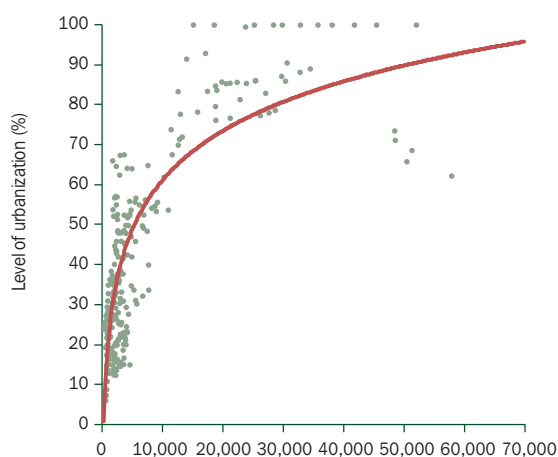
Therefore, it is inappropriate to rely on the EKC to infer an urbanization–environment relationship and conclude that the environment will further degrade as Asia urbanizes. Indeed, urbanization can produce beneficial environmental outcomes as it facilitates improved productivity, development of the service sector, and access to environment-related infrastructure; promotes green innovation and technology; prompts traditional manufacturing to relocate away from city centers; nurtures middle class and property owners who are more pro-environment than the general populace; and leads to lower fertility rates and higher educational levels.



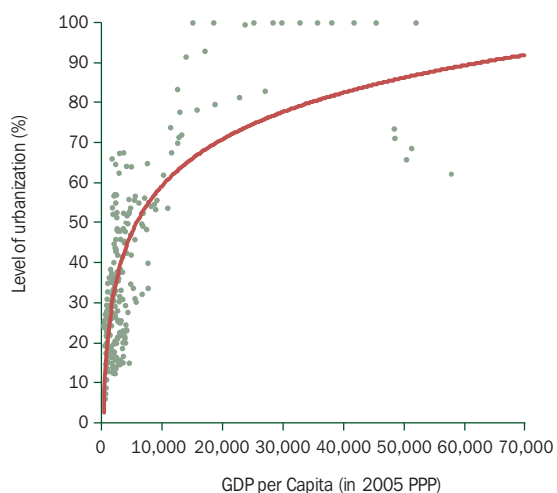
Figure 24 GDP Per Capita and Level of Urbanization, 1980–2010  
a. All Countries



b. Asia



c. ADB Developing Member Economies



GDP = gross domestic product, PPP = purchasing power parity.  
Source: World Bank (2012).

## Urban Agglomeration Helps Improve the Environment

Urban agglomeration in itself is benign for the environment. First, it comes with higher productivity due to the positive externalities and scale economies discussed in the first section of this chapter. For Asia as a whole, urban productivity is more than 5.5 times that in the rural areas (UN-HABITAT 2010). Thus, the same level of output can be produced using fewer resources with urban agglomeration than without. In this sense, urbanization helps reduce the ecological footprint.

Second, development of the service sector is closely associated with urban agglomeration. The tertiary sector could not prosper without urbanization because most services require a certain degree of concentration of clients. As service production generally pollutes and emits less than manufacturing activities, urbanization enhances the beneficial structural effect underlying the EKC, as discussed in the subsection “Asia’s Environmental Challenges.”

Third, environment-related infrastructure and services such as piped water, basic sanitation, and solid waste disposal are much easier and more economical to construct, maintain, and operate in an urban than a rural setting. In other words, urbanization facilitates the supply of the relevant facilities and services to a larger share of the population. On the other hand, urbanization promotes growth that helps enhance affordability and demand. It is thus not surprising that many more urban residents have access to infrastructure and other services than rural residents (Wan and Zhang 2011, ESCAP, ADB, and UNDP 2012). For example, city residents in India have much greater access to flush toilets—60% in 1992 (relative to a national average of 22%) and this increased to 79% by 2006 (Bonu and Kim 2009).

Fourth, urbanization facilitates innovations, and this applies to green technologies as well. In the long run, the environment-friendly equipment, machines, vehicles, and utilities determine the future of the green economy, and Asia’s cities are likely to play a key role in producing and exporting low-cost, high-quality renewable power generation equipment and electric vehicles. When new forms of industry open, firms usually cluster in cities featuring high levels of human capital. When the technology is mature they decentralize and relocate to low-wage regions for mass production (Duranton and Puga 2001). As a consequence, Asian urban growth and openness to global markets facilitates the rise of the global green economy.

Green innovations accompanying urbanization in Asia will be helped by the vast size of Asia's own market. In the presence of fixed costs, the scale of the market is a key determinant for developing new products. The billions of people who seek to purchase energy efficient products will create a huge opportunity for entrepreneurs who can serve them. Acemoglu and Linn (2004) demonstrated this in the case of new drug development, and their logic holds for green products. If billions of people seek energy efficient air conditioners to offset hot summers, there will be significant incentives to invest in developing such products. Some of the producers will succeed and, in a globalized world market, the pay-off will be huge.

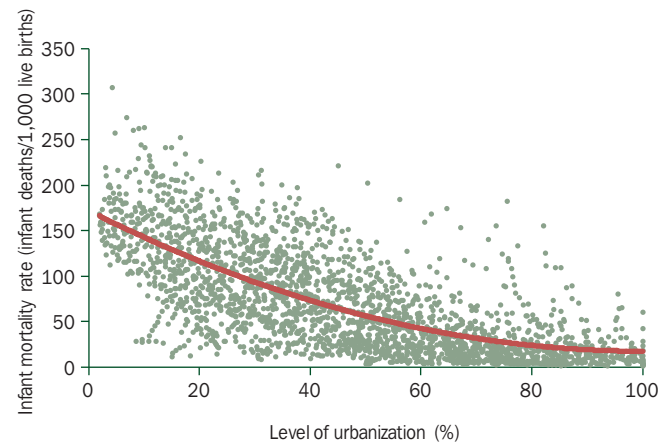
Many Asian economies already export green technology. Sawney and Kahn (forthcoming) note that developing countries' exports of renewable energy products have grown significantly. For example, the PRC's share in the US imports of core wind and solar energy equipment, including solar panels, cells, and blades, has increased steadily. In particular, the PRC's share of US imports of solar modules grew from 0% to 43% during 1989–2010 and India's share of US imports of wind turbines grew from 0% to 10% during 1996–2010 (Table 8).

Fifth, for any given population, high density associated with urban agglomeration can benefit the environment. The urban economics literature shows that compactness is one of the most important determinants of energy use (Glaeser and Kahn 2004). High density can create greater viability for public transport and entail less

or shorter travel. It also facilitates walking and cycling rather than driving or taking public transport (Newman and Kenworthy 1999).

Finally, the enhanced economic freedom arising from urbanization allows people to improve their standard of living in many ways, including through better food, shelter, and health care. Urbanization benefits education and can help increase a population's health and robustness in the face of disease. Urban growth also generates revenues that fund infrastructure projects, reducing congestion and improving public health. Consequently, it is not surprising that infant mortality decreases with increasing urbanization (Figure 25).

Figure 25 Infant Mortality Rate and Level of Urbanization, World, 1955–2010



Sources: UN (2011) and (2012).

Table 8 United States Imports of High-Tech Green Equipment (%)

Economy	Blades		Wind Turbines		Hub and Drive		Solar Modules		Solar Cells	
	1989	2010	1996	2010	1995	2010	1989	2010	1989	2010
Brazil	0.27	24.31	–	0.05	10.19	1.76	–	–	5.30	–
Canada	13.06	5.33	0.20	0.69	12.35	10.31	0.16	0.09	0.48	0.07
China, People's Rep. of	0.97	7.22	0.04	0.39	0.12	12.70	0.04	43.72	–	13.75
Denmark	1.13	10.72	95.37	45.92	2.02	1.94	–	–	0.19	–
France	1.29	1.30	–	0.01	4.83	0.73	–	0.01	0.19	0.04
Germany	31.29	14.37	0.43	7.55	19.48	9.51	0.88	1.87	5.13	24.14
India	–	9.74	–	10.04	0.52	1.13	0.79	0.95	–	0.72
Italy	2.77	0.61	–	2.48	2.58	1.02	0.01	0.02	0.10	0.07
Japan	10.45	3.59	0.23	17.29	18.01	9.64	53.59	10.99	25.14	2.08
Korea, Rep. of	0.10	1.37	–	0.23	0.45	2.38	–	0.42	–	2.25
Mexico	0.12	8.69	–	0.06	3.66	35.67	34.74	23.36	7.31	0.31
Netherlands	3.42	0.47	–	0.06	0.11	1.12	–	0.11	0.01	0.01
Singapore	3.06	0.22	–	–	–	0.17	3.23	0.06	1.23	18.26
Spain	0.67	4.14	–	11.41	–	2.93	–	0.12	–	0.07
Sweden	2.71	0.16	–	–	3.52	0.14	–	0.84	0.13	0.28
Switzerland	1.36	0.13	–	0.01	5.19	0.24	–	0.03	0.05	0.02
Taipei, China	2.74	0.15	–	0.01	5.76	1.70	1.37	6.13	0.55	35.30
United Kingdom	18.10	5.20	3.65	3.67	7.05	2.55	1.91	0.02	0.25	0.28
Others*	0.24	0.21	–	–	0.08	1.01	2.79	11.19	53.78	1.25
Total Shares	93.75	97.93	99.92	99.87	95.92	96.65	99.51	99.93	99.84	98.90

– = zero; \* Others include Australia; Hong Kong, China; Indonesia, Malaysia, Philippines, and Thailand.

Source: Sawney and Kahn (forthcoming).

## Manufacturing Relocation and Rise of the Middle Class and Property Owners

Urbanization can help alleviate environmental problems by prompting relocation of traditional manufacturing away from major city centers. This is partly attributable to rising land prices in city centers as urbanization proceeds. Development of infrastructure such as ports and highways also facilitates such movements (Henderson 2002). Manufacturing firms recognize that by choosing a less centralized location they can pay lower wages and land prices while still enjoying access to consumer markets and intermediate input suppliers. As Asia's nations invest in better transport infrastructure, manufacturing can move further from the major cities and these jobs will be replaced by knowledge economy and service jobs with lower ecological footprints. For example, in 1970, Seoul's shares of population and manufacturing in the Republic of Korea were 62% and 61%, respectively. But by 1993, while Seoul's population remained at 61% of the country's total, its manufacturing share had fallen to 30%. Between 1983 and 1993, Seoul's share of national manufacturing jobs fell from 21% to 14% and Pusan and Taegu's share fell from 23% to 14% (Henderson 2002). These examples echo the trend of decentralization of manufacturing employment that has taken place elsewhere (Glaeser and Kahn 2004).

The migration of heavy industry away from major cities has generated large public health benefits through improved air and water quality in many cities around the world (Kahn 1999, 2003). In a case study of the 2008 Summer Olympics in Beijing, Chen et al. (2011) found significant improvements in ambient air quality as the authorities changed transport patterns and shut factories. Kahn (2003) documents the sharp reduction of pollution in the Czech Republic and Poland as they closed energy inefficient manufacturing plants that were built under communism.

The economic damage caused by exposure to pollution is a function of the number of people exposed and is reflected by their willingness to pay to avoid pollution. When a factory moves from a major city to a less populated area, the aggregate damage caused is likely to decline because fewer people are exposed to the pollution. As an older factory closes at the origin and a new factory with better technology is built at the new destination, emissions per unit of output are also likely to fall.

In some Asian cities, polluting industrial activities are geographically separated from other locations, such as tourist areas. If industrial activity took place close to tourist locations, they would likely be degraded and

tourists would stop visiting the area. Separation of the two activities helps to reduce the effects of pollution and to boost tourism. Box 4 presents a case study for Penang in Malaysia.

Urbanization also helps nurture the middle class and raises private ownership of properties in cities. The expanding middle class will demand a better environment, and property owners are a powerful interest group with a stake in enacting policies to curb environmental degradation. They directly gain from improvements in the local quality of life, not least because the improvements will lead to higher local real estate prices. Put simply, land is more valuable in nicer areas with natural and human amenities, which is well documented in many real estate studies (see Gyourko, Kahn, and Tracy 1999 for a review; and Zheng and Kahn 2008 on the PRC). Zheng and Kahn (2008) document that real estate prices are higher in low-pollution parts of Beijing that feature green space and are close to public transit stations.

### Box 4 Malaysian Decentralization

Penang comprises an island and a mainland area twice the size of the island. Most high tech factories are in the southeastern part of the island (Bayan Lepas Free Industrial Zone [FIZ]), while the heavy industry factories are primarily in suburbs such as Mak Mandin Free Trade Zone (FTZ) in Butterworth or Prai FTZ on the mainland (along the coast opposite downtown Penang) and Kulim in Kedah (a growing town at the border of Kedah and Penang). Penang still serves as the regional financial city for the northern peninsula. Most of the tourist sites and service industries such as banking and tourism are in old Georgetown at the northern part of the island and along the northern shore and beaches such as Tanjung Bungah and Batu Feringghi. Due to Georgetown's status as a UNESCO World Heritage Site, the state government has imposed many restrictions to preserve the heritage sites and to boost the tourism industry. As a result, most heavy industry factories are set up in or have moved to the mainland or neighboring states and the majority of the firms on the island are relatively environmentally friendly, and are usually involved in high tech research and production.

Penang's manufacturing sector is primarily related to electrical and electronics categories of goods. To ease environmental strain in the city of Georgetown's centers, most factories are in FTZs or industrial estates such as Bayan Lepas FIZ, Prai FTZ, or Kulim along the Penang-Kedah border. Minimum taxes are levied in such zones and all imports and exports enjoy duty-free privileges.

Penang's relocation of manufacturing away from tourist and cultural heritage sites highlights how an Asian city has physically separated the two activities. If they were in closer proximity, the tourism business would suffer from the pollution caused by manufacturing.

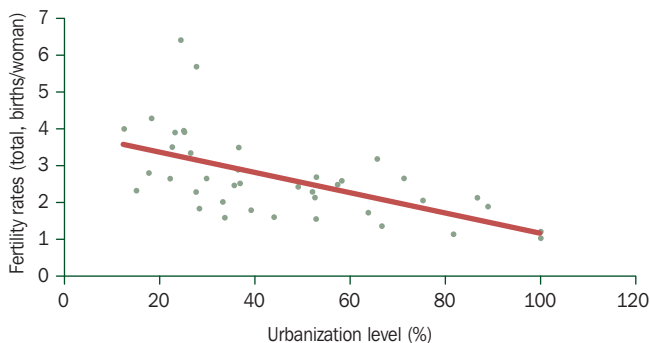
Sources: Authors and William (2011).

## Declining Fertility and Increasing Educational Attainment

Urbanization is also beneficial to the environment due to its close association with declining fertility.<sup>9</sup> The economics of demography offers a simple explanation (Becker 1991). Women who live in cities have more opportunities for education and to work in the labor force than rural women. Consequently, urban women respond by working more, marrying later, and having fewer children. As young women anticipate that they will have the opportunity to work in cities, they invest more in their education as teenagers and this further encourages them to work in the market place. The net effect is to slow population growth, which means less adverse environmental consequences than would otherwise be the case.

Anecdotal evidence from Asia supports the above arguments. In nations such as Viet Nam, the fertility rate has declined dramatically, from the 1980 level of 5.4 to 1.8 in 2010 (World Bank 2012). In rich cities in the PRC such as Shanghai, the birth rate has fallen below the population replacement rate. Around the world, the same correlation is observed. Figure 26 highlights this negative correlation for Asian nations.

Figure 26 Fertility Rates vs. Level of Urbanization in Asia



Source: World Bank (2012).

Using 1980–2010 data from 31 Asian countries (194 observations), total raw fertility can be regressed on levels of urbanization, GDP per capita, and education. Literally interpreted, the modeling results indicate that every 1 percentage point increase in the urbanization level led to 5 fewer births per 100 women who are of reproductive age. To directly assess the impact of urbanization on population growth, an econometric model is fitted to cross-country data from Asia. The empirical results

tabulated in Table 9 imply that every 1 percentage point increase in the urbanization level led to 0.02 percentage point reduction in the net population growth rate. This translates into a total reduction of 169.28 million in the population increase that might have happened without urbanization during 2010–2050, more or less evenly distributed over different decades (Figure 27). Under the “business as usual” scenario of Figure 23, this amounts to an additional 1,727 million tons of CO<sub>2</sub> in 2050, 65 million tons more than the combined emissions of India and Viet Nam in 2009 (Howes and Wyrwoll 2012).

Independent Variable	Coefficient	Standard Error
Urbanization	-0.019***	0.005
GDP per capita	0.000***	0.000
Education <sup>a</sup>	-0.049***	0.015
Constant	2.534***	0.250
Observations	194	
R <sup>2</sup>	0.1623	

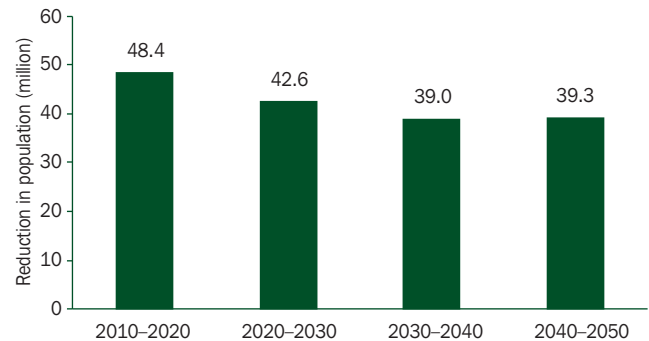
GDP = gross domestic product

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

a education refers to percentage of complete tertiary schooling attained in female population.

Source: ADB estimation.

Figure 27 Reduction in Projected Population due to Urbanization



Source: ADB estimates.

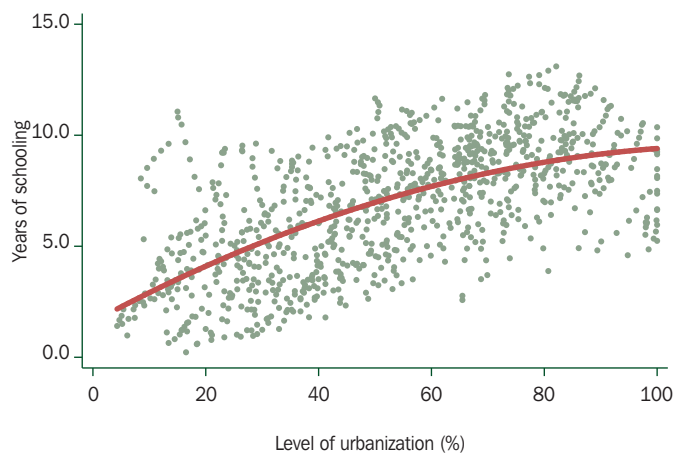
As discussed in the introduction of this chapter, one major function of cities is to gather intellectual capital so people can become more educated by learning from and interacting with each other. Intensified competition in cities also motivates urbanites to accumulate human capital. In addition, cities offer better and more opportunities for learning. The positive association between urbanization and education is evident in Figure 28.

Improved educational attainment, in turn, can affect the environment at least in two ways. First, similar to urbanization, education helps lower fertility, as reflected by the negative and significant coefficient of the education variable in Table 9. Second, the more educated

<sup>9</sup> The fertility rate is the ratio of live births per woman of reproductive age in a given year.

often opt for a better living environment by voting for environmental regulation (Kahn 2002). They are also more willing to sacrifice consumption today for returns in the long run (Moretti 2004a, Becker and Mulligan 1997). And politicians are likely to respond by supplying policies that urban voters desire.

Figure 28 Education vs. Urbanization in Asia, 1980–2010



Sources: UN (2012) and Barro-Lee (2010).

Are the educated in Asia also pro-environment? The World Values Survey offers the opportunity to address this question. The survey data allow one to observe the personal priorities of people who are of the same age but live in different nations. For Asia, the data cover the PRC; India; Indonesia; the Republic of Korea; Malaysia; Taipei, China; Thailand; and Viet Nam. In 2007, the survey focused on four attitudinal questions regarding whether respondents (1) prioritize environmental protection over economic growth, (2) are willing to sacrifice income to protect the environment, (3) would pay higher taxes to protect the environment, and (4) support greater regulation to protect the environment.

Table 10 reports the results. The top rows focus on Asian respondents and stratify the data by educational attainment. A positive correlation between educational attainment and prioritizing green issues is clearly shown. For example, 47% of respondents in Asia who have at least a university education prioritize the environment over economic growth while only 32% with no formal education have this prioritization. As another example, while less than 50% of those without formal education are willing to sacrifice personal income for environment, this percentage is as high as 81% for university graduates.

The bottom two rows of Table 10 compare the attitudes of all respondents versus those who live in Asia. The data show that respondents from Asia are

more willing to sacrifice personal income to protect the environment (72%) than the world average (62%). They are 7 percentage points more likely to support higher taxes for environmental protection although relatively more Asians prioritize growth over environment. In other words, they do not want to see growth slow in the region but are willing to sacrifice personal income for better environment ex post. These findings suggest a culture in Asia that is forging greener urbanism.

Population Subgroups	Sacrifice Growth (%)	Sacrifice Income (%)	Pay Higher Taxes (%)	Support Regulation (%)
<b>By educational attainment</b>				
No formal education	32.3	49.5	43.2	42.1
Less than Secondary Education	42.4	68.7	58.3	60.4
Secondary Education	45.2	75.3	62.8	60.8
At least Some University Education	46.8	80.8	67.7	61.0
World	49.3	61.8	53.3	67.2
Asia	43.4	71.8	60.4	58.5

Source: ADB estimates based on World Values Survey Data.

## Quantifying the Environment–Urbanization Nexus

The channels and mechanisms through which urbanization affects the environment, as discussed in this chapter, imply that the relationship between urbanization and the environment may differ from the conventional EKC. While it is difficult to pin down the impacts of each channel, econometric models may be used to estimate a relationship. In doing so, it is crucial to control for GDP in the model so that the effects of urbanization on environmental indicators can be properly identified and quantified. Thus, the model to be estimated takes the following form:

$$\ln CO_2 \text{ or } \ln PM_{10} = \alpha_0 + \alpha_1 \ln GDP + \alpha_2 (\ln GDP)^2 + \beta_1 \text{Urb} + \beta_2 \text{Urb}^2 + \beta_3 \ln(GDP) * \text{Urb} + u$$

Where  $\ln$  = natural logarithm;  $CO_2$  = average emission of carbon dioxide (tons per capita);  $PM_{10}$  is measured in micrograms per cubic meter;  $GDP$  = GDP per capita in 2005 PPP;  $Urb$  = level of urbanization;  $u$  is the usual disturbance term and  $\alpha$ 's and  $\beta$ 's are parameters to be estimated.

Table 11 The Environment–Urbanization Model				
Models for Independent Variables	1990s		2000s	
	Coefficient	Standard Error	Coefficient	Standard Error
<b>Ln CO<sub>2</sub></b>				
Ln GDP per capita	1.781***	0.415	6.922***	1.088
(Ln GDP per capita) <sup>2</sup>	-0.064**	0.025	-0.414***	0.083
Urbanization	0.102***	0.006	-0.082*	0.049
Urbanization <sup>2</sup>	-0.001***	0.000	-0.001***	0.000
Ln GDP per capita x Urbanization			0.026***	0.008
Constant	-12.381***	1.700	-31.214***	3.610
Observations	370		374	
R <sup>2</sup>	0.829		0.821	
<b>Ln PM<sub>10</sub></b>				
Ln GDP per capita	-1.161***	0.345	-1.870***	0.482
(Ln GDP per capita) <sup>2</sup>	0.046**	0.021	0.101***	0.028
Urbanization	0.027***	0.006	0.033***	0.007
Urbanization <sup>2</sup>	-0.0002***	0.000	-0.0004***	0.000
Constant	9.746***	1.408	11.670***	1.979
Observations	310		304	
R <sup>2</sup>	0.359		0.241	

CO<sub>2</sub> = carbon dioxide, GDP = gross domestic product, Ln = natural logarithm, PM<sub>10</sub> = particulate matter with diameter of 10 micrometers or less.

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

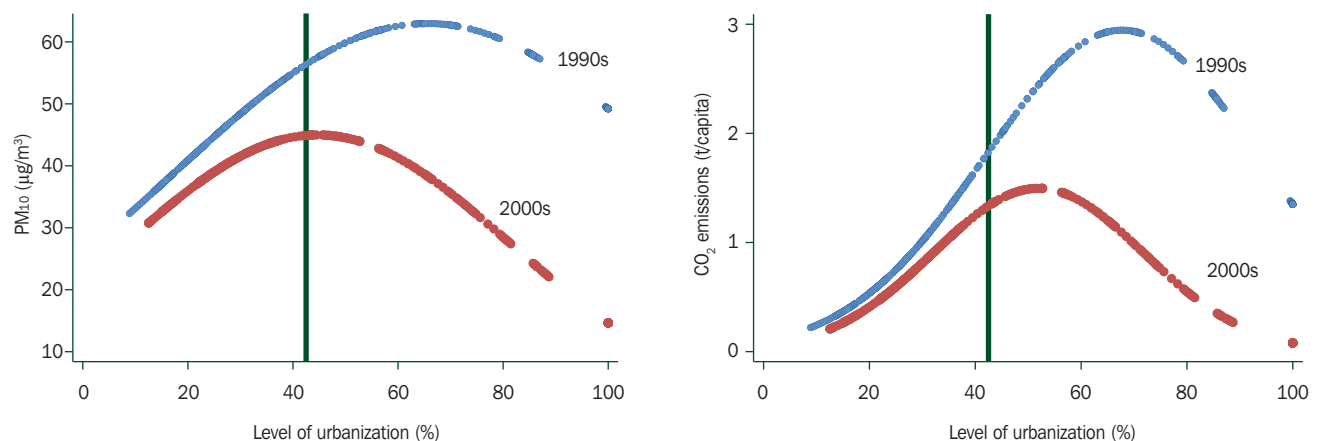
Source: ADB estimation.

The model is fitted separately to 1990–1999 and 2000–2008 data for Asia economies from the World Development Indicators (World Bank 2012). The interactive term was found to be highly insignificant in all models except one. Table 11 summarizes the estimation results. Despite the parsimonious specification, the models fit the data well and are of good quality in terms of the usual statistical and economic criteria.

Based on the modeling results, the environment–urbanization curves are plotted in Figure 29. The plots show an inverted U-pattern, similar to the conventional EKC in shape. Thus, environmental degradation occurs in the early stage of urbanization when productivity gains and agglomeration effects are low, which can be outweighed by its negative effects. After reaching a certain level when agglomeration and productivity improvement become significant, urbanization leads to reductions in pollution and emissions.

An important and interesting finding emerges when the urbanization–environment curves for the 1990s and 2000s are compared. Figure 29 shows that over time the curves for CO<sub>2</sub> emissions per capita and PM<sub>10</sub> (µg/m<sup>3</sup>) shifted down and to the left. Shifting down means much lower emissions and pollution at the same level of urbanization. Shifting left means the peak of the inverted U curve comes sooner under the 2000s technologies and policy environment. For example, the peak of the 1990s curve for CO<sub>2</sub> emissions occurs at a 68% urbanization level while that of the 2000s curve occurs at 52%. For PM<sub>10</sub>, the peak under the 2000s curve corresponds to a 45% level of urbanization rather than 66% under the 1990s curve. These results are consistent with the literature, which indicates that local pollution usually starts to decline earlier than nonlocal pollution.

Figure 29 Environment–Urbanization Relationship in Asia

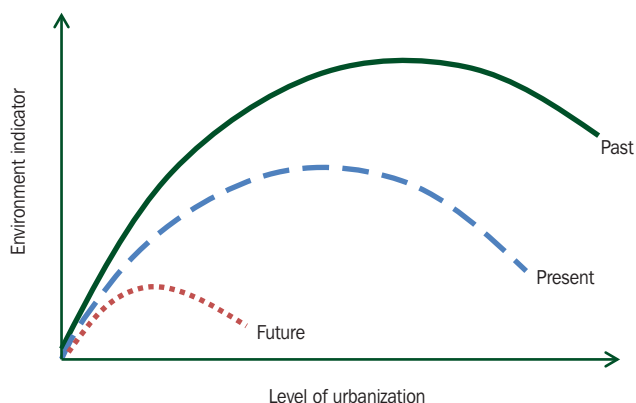


CO<sub>2</sub> = carbon dioxide, PM<sub>10</sub> = particulate matter with diameter of 10 micrometers or less, µg/m<sup>3</sup> = micrograms per cubic meter, t = ton.  
Source: ADB estimates.

The shift of the environment–urbanization curve, like the conventional EKC, is primarily driven by technology advances, structural changes, and regulations. The gap between the two curves corresponding to the same urbanization rate measures the impact of the shifts on pollution or emissions. At the 2010 level of urbanization for Asia, the impacts amounted to 20% reductions for PM<sub>10</sub> ( $\mu\text{g}/\text{m}^3$ ) and 27% for CO<sub>2</sub> emissions per capita, forcefully demonstrating the large impacts of technology and government policies.

Thus, urbanization can significantly decrease the amount of environmental degradation. Holding everything constant, including technology and policy, by 2050, CO<sub>2</sub> emissions per capita will be halved and the PM<sub>10</sub> ( $\mu\text{g}/\text{m}^3$ ) level will be cut by 37% even if nothing else but urbanization changes. Because technology keeps improving and pressures from various sources are mounting, the environment–urbanization curve will almost certainly continue to shift down and left, as illustrated in Figure 30. Therefore, the future of Asia's environment will most likely be bright as urbanization proceeds, with careful management.

Figure 30 Illustrative Environment–Urbanization Curve



Source: Authors' illustration.

## Summary

Although cities face many environmental challenges, urbanization can help promote greenness as it leads to declining fertility rates, increasing levels of education, growing support for “greening,” relocating industry away from city centers, and advancing technology. Also, by nurturing the urban middle class and property owners, urbanization can help ameliorate adverse environmental impacts as educated, informed urban middle class members and property owners are usually pro-environment and they tend to support “low-carbon”

products—products that enable a reduction in carbon emissions. The combined effects of these forces can lead to better environmental outcomes as Asia urbanizes, as reflected by the shift of the environment–urbanization curve.

Nevertheless, Asia has not reached the peak of the urbanization–environment inverted U-curve and is a long way from the peak of the conventional EKC. Even the promising trend depicted in Figure 29 is conditional on maintaining the current level of GDP. In other words, the beneficial effects of urbanization could be offset by rising GDP. Thus, Asia will continue to face the serious environmental challenges outlined in the section “Environmental Implications of Urbanization in Asia.” Thus, the region must move urgently to design and implement appropriate policies, a topic of the next section.

## Policy Options for Green Cities

The key message from the previous section is a cautiously optimistic one: Asia can achieve green urbanization but to do so, appropriate interventions must be designed and implemented. These interventions would embrace both free market mechanisms, such as pricing resource use to reflect its negative impacts on the environment, and direct roles of government, such as reforming or introducing regulations. In particular, stringent urban planning is required to develop environment-friendly satellite cities linked with megacities by train, light rail, or metro rather than highways. Urban infrastructure investment must take into consideration vulnerability to natural disasters such as flooding, as occurred in Bangkok, Beijing, and Manila in 2011–2012. After the highly commendable and recent rapid expansion of physical infrastructure in Asia, the growing challenge now is to improve the quality of infrastructure (such as in its safety standards or resilience to climatic effects), the efficiency of its service delivery, and its synergies both with other forms of physical infrastructure and with soft infrastructure of regulations, standards, and institutions.

In developing policy recommendations, it is important to exploit unique features of Asia's urbanization and take advantage of Asia's position as a late comer in urbanization. Also, rather than producing an exhaustive list, attention will be focused on policies that can be supported by examples and case studies and that can produce benefits larger than costs. Four groups of such policies will be discussed here.

The first subsection focuses on conserving resources currently used with present technologies. Pricing for externalities in addition to scarcity is a market-based solution for raising the efficiency of resource use. As a late comer, Asia cities can introduce environmental regulations, standards, and good practices at a still early stage of development. Meanwhile, given more and expanding megacities in the region, maintaining the vitality of city centers and developing mass public transport are crucial to reduce cities' ecological footprints.

The second subsection discusses policies that promote technological advance, creation of environment-friendly cities, and use of alternative energies. These new cities would be linked with megacities by fast train, light rail, or metro rather than highways. The second section complements the first subsection because savings from efficiency improvements and conservation alone are not enough—the impacts are limited and decline as population growth compounded with rising income leads to more production and consumption.

The third subsection is devoted to the urban poor who are particularly vulnerable and have little or no access to basic social services. Any public policy must take the poor into consideration, particularly given the increasing trend in inequality in Asia, along both income and nonincome dimensions (ADB 2012b, Wan and Zhang 2011).

The last subsection addresses the issue of policy implementation. Two areas are singled out for discussion: financing for urban development, and government transparency and accountability. Even the best policies will yield few results if politicians do not have the incentive or resources to implement and enforce them.

## Enhancing Efficiency and Conservation

A fundamental cause of environmental degradation arises when, in the absence of regulation, individuals and firms have insufficient incentive not to pollute. Thus, the key is to internalize the externalities or social costs associated with damage to the environment, particularly targeting the rising motorization in Asia. In other words, “getting prices right” or “making users pay” is one of the most effective and feasible policy options. Such policies lead to resource savings and at the same time help to raise government revenue. “Getting prices right” alone is not enough and requires introducing relevant regulations. Environmental laws and regulations need to be introduced early in the development process. And, given the prominence of public transport in urban living

and the overall environment, the design and provision of urban public transport infrastructure is important.

**Getting Prices Right.** The idea of “getting prices right” is to ensure that prices for resources are sufficiently high that they incorporate externalities and so reflect the full social costs. This is generally equivalent to taxing consumers, which will dampen average demand. Setting the level of such taxes or price markups is a sensitive issue, as taxes of any kind benefit some people while adversely affecting others. The need to ensure majority support for such measures limits the amount that prices can be marked up. Theoretically, such taxes or price markups should be set at a level that maximizes the difference between welfare gains from an improved environment and increased revenue for the government and other winners on the one hand, and welfare losses of individuals and institutions due to rising prices on the other. In reality, different countries or the same country at different stages of development may choose different tax levels through careful research combined with wide public consultations.

Pricing for externalities has been practiced for a long time, by some countries in Asia and elsewhere. People who are interested in this policy option can readily learn from the experiences of pioneering work in such pricing. In particular, modern technology now allows variable pricing of electricity, water, and congestion, which can result in improved environmental impacts and more sustainable service deliveries than flat rate tariffs.

Singapore introduced congestion pricing in 1975.<sup>10</sup> It now permits real-time variable pricing based on congestion levels. Singapore also has high vehicle registration fees and a quota system for new vehicles, which have recently been replicated in major cities in the PRC. Another example is the Central London congestion charge. Such policies have helped contain the volume of car ownership, reduce urban traffic congestion, increase the use of public transport, and raise revenue for urban development (Leape 2006).

Pollution can also be directly priced. With improvements in information technology and database management, the annual distance that individual vehicles have been driven can be monitored when their owners register the cars each year. Taking into account a vehicle's make, model, age, and engine size, the annual emissions can be estimated and the owner can be charged accordingly. This can generate revenue and provide an incentive for individuals to drive newer, lower polluting vehicles as well as to drive less.

<sup>10</sup> Congestion pricing is the practice of charging private motorists more to use a roadway, bridge, or tunnel where and when the traffic is heavy.



Further, a small percentage of used vehicles usually produce a large share of a city's total emissions. For example, in the US, roughly 10% of vehicles produce about 50% of total vehicle emissions (Shafizadeh, Niemeier, and Eisinger 2004). The owners of such "super emitting" vehicles impose much larger social costs on society than the average car owner. To mitigate this problem, environmental authorities could employ remote monitoring technology<sup>11</sup> that allows issuance of an emissions ticket—the equivalent of a speeding ticket. Such targeting provides heavy emitters with the incentive to have their vehicles checked and repaired. The net effect would be to reduce emissions.<sup>12</sup>

In the case of CO<sub>2</sub> emissions, a fundamental problem is that of the "global free rider." One solution is for nations to sign a binding global carbon mitigation treaty that would introduce either a global CO<sub>2</sub> trading market or a carbon tax. Unfortunately, the former has not happened yet despite continuing negotiations. However, the green economy is firmly on the agenda and many countries worldwide have now created a carbon tax and/or price. For example, the Republic of Korea approved a "cap-and-trade" carbon reduction system in May 2012.<sup>13</sup>

The pricing of water and electricity requires paying special attention to the poor. As these are basic necessities, the authorities must charge prices that are low enough to allow access by the poor but high enough to prevent excessive use. One option is to charge increasing block tariffs as a particular consumer's usage increases. This allows simultaneous protection of the poor and collects higher revenue from users who are likely to be wealthier. Table 12 highlights the cross-nation differences in water prices and the differences across the pricing steps. For example, in Bangalore the price per liter of water for the top tier is six times that for at the bottom tier. Some cities (such as Hong Kong, China and Manila, Philippines) charge a zero marginal price at the lowest pricing tier.

"Getting prices right" also involves managing expectations. If Asian planners, residents, and firms expect rising energy and water prices, they will invest to economize on such consumption, leading to resource conservation. It is no accident that in nations with higher gasoline prices, people tend to live in higher density areas and own more fuel-efficient vehicles. And, such cities have often invested in higher quality public transport.

In addition, when consumers expect rising energy prices, demand for green technology will soar and Asian entrepreneurs will respond to price signals. Much evidence has shown that when energy prices go up, the vehicle fleet becomes more energy efficient and firms increase their investment in research and development to enhance fuel efficiency. Similarly, higher electricity prices are associated with subsequent introduction of more energy efficient appliances (Newell, Jaffe, and Stavins 1999). Using US data, Newell, Jaffe, and Stavins found that the relative prices of electricity and natural gas rose 24% and 69%, respectively, during the simulation period (1973–1993). If these relative prices had remained at their low 1973 levels, about one-quarter to one-half of the increase in energy efficiency would not have occurred. Energy efficiency would have been 8% lower for room air conditioners, 16% lower for central air conditioners, and 5% lower for gas water heaters.

Fuel subsidies are closely related to the issue of energy price. Such subsidies are economically costly to taxpayers and can add damage to the environment. These subsidies are intended to protect the poor; however, they end up benefiting the rich. In Indonesia in 2011, fuel and electricity subsidies amounted to 3.4% of GDP, with the richest 10% of households consuming 40% of the total subsidized gasoline, and the top half of households using almost 84% of it (Ginting and Aji 2012). The International Monetary Fund estimated that 80% of the total benefits from petroleum subsidies in 2009 accrued to the richest 40% of households. In contrast, only about 8% of the benefits reach the poorest 20% of the population (Coady et al. 2010).

Encouragingly, leaders of the G20 have committed to rationalize and phase out over the medium term of inefficient fossil fuel subsidies, action that is estimated to help reduce GHGs by 10% globally by 2050. In Asia, the Indonesian government recently proposed a revised 2012 budget bill to reduce untargeted fuel subsidies and to use the saved budget resources to invest in infrastructure, promote green growth, and provide transfers to poor regions and households (IEA et al. 2010).

11 This system uses one basic principle: certain gases absorb infrared light at different rates. By placing an infrared light transmitter on one side of the road and aiming its beam into a receiver on the other side, a computer can compare the wavelength of the light passed through the exhaust plume when a vehicle drives through the beam with the wavelength of the normal infrared light. It then calculates the percentage of hydrocarbons, nitrogen oxides, CO<sub>2</sub>, and carbon monoxide. If, and only if, a vehicle's emissions are over the maximum limits, a camera records the license plate number and the authority is notified.

12 For data from other countries on tailpipe emissions as judged by remote sensing see [http://www.feat.biochem.du.edu/pub\\_list.shtml](http://www.feat.biochem.du.edu/pub_list.shtml)

13 A "cap-and-trade" carbon reduction system is a market-based pollution reduction system that sets a limit (a "cap") on the amount of pollution that may be emitted. This cap is allocated to emitters. If companies need to emit more pollution than their allotted amount, they may purchase ("trade") permits from those that emit less than their cap.

Table 12 Water Pricing

City	With effect from	Tariff Structure	Blocks (Units in litres)	Per 1000 liter or cubic metres (in local currency)	Tariff (\$)	
Dhaka <sup>a</sup>	Jul-09	Flat Rate (Metered Connection)	All Units	6.34	0.077	
Chittagong <sup>b</sup>	Dec-10	Flat Rate (Metered Connection)	All Units	5.96	0.073	
Singapore <sup>c</sup>		IBT	0 – 40,000	1.17	0.937	
			Above 40,000	1.4	1.121	
			0 – 8000	6	0.113	
Bangalore <sup>d</sup>	Feb-05	IBT	8001 – 25000	9	0.169	
			25001 – 50000	15	0.282	
			50001 – 75000	30	0.564	
			75001 above	36	0.676	
New York <sup>e</sup>	Jul-10	Flat Rate (Metered Connection)		2.95/100 cf		
				1.04/ 1000 l	1.040	
Ottawa <sup>f</sup>	May-10	Flat Rate (Metered Connection)		1.276	1.283	
Sydney <sup>g</sup>	Jul-10	Flat Rate (Metered Connection)		2.012	2.076	
			0 – 5000	1.25	0.010	
			5 – 10,000	1.5	0.012	
			10 – 15,000	3	0.023	
			15 – 20,000	30	0.231	
			20 – 25,000	50	0.384	
			25 – 30,000	75	0.577	
			30 – 40,000	90	0.692	
			40 – 50,000	105	0.807	
			50 – 75,000	110	0.846	
			Above 75,000	120	0.922	
			Up to 10,000	2.2	0.041	
			10 – 20,000	3.3	0.062	
			20 – 30,000	16.5	0.310	
			Above 30,000	27.5	0.517	
			Up to 12,000	0	0.000	
			12 – 43,000	4.16	0.536	
			43 – 62,000	6.45	0.831	
			Above 62,000	9.45	1.218	
			Up to 10,000	0	0.000	
			10 – 20,000	10.89	0.255	
			20 – 40,000	20.65	0.484	
			40 – 60,000	27.19	0.638	
			60 – 80,000	31.76	0.745	
			80 – 100,000	33.27	0.780	
			100,000 – 150,000	34.76	0.815	
			150,000 – 200,000	36.25	0.850	
			Above 200,000	37.75	0.885	
			Up to 10,000	0	0.000	
			10 – 20,000	14.58	0.342	
			20 – 40,000	27.7	0.650	
			40 – 60,000	36.38	0.853	
			60 – 80,000	42.49	0.997	
			80 – 100,000	44.43	1.042	
			100,000 – 150,000	46.47	1.090	
			150,000 – 200,000	48.54	1.138	
			Above 200,000	50.59	1.187	
			Up to 10,000	2.5	0.047	
			10 – 15,000	10	0.188	
			15 – 25,000	15	0.282	
			Above 25,000	25	0.470	
				3.5	0.066	
				3	0.056	
			Group 1 (Flat Rate)	550	0.060	
			Group 2 (IBT)	Up to 20,000	550	0.060
				Above 20,000	1000	0.109
			Group 3A (IBT)	Up to 10,000	2450	0.266
				10 – 20,000	3350	0.364
				Above 20,000	4000	0.434
			Group 3B (IBT)	Up to 10,000	3500	0.380
				10 – 20,000	4400	0.478
				Above 20,000	5600	0.608
			Group 4A (IBT)	Up to 10,000	5100	0.554
				10 – 20,000	6200	0.673
				Above 20,000	7500	0.815
			Group 4B (Flat Rate)	9750	1.059	

IBT = increasing block tariff

Source: Gunawansa and Hoque (2012) with data from:

a - <http://www.dwsa.org.bd/>

b - <http://cwsa.org/index.php?cPath=Tariff>

c - <http://www.pub.gov.sg/general/factsandfigures/pages/watertariff.aspx>

d - [http://www.bwssb.org/water\\_tariff\\_prorata.html](http://www.bwssb.org/water_tariff_prorata.html)

e - [http://www.nyc.gov/html/nycwaterboard/html/rate\\_schedule/index.shtml](http://www.nyc.gov/html/nycwaterboard/html/rate_schedule/index.shtml)

f - [http://www.ottawa.ca/residents/water/billing/new\\_rate\\_faqs\\_en.html](http://www.ottawa.ca/residents/water/billing/new_rate_faqs_en.html)

g - <http://www.sydneywater.com.au/YourAccount/PricingInformation/>

h - [http://www.waterboard.lk/scripts/Downloads/Water\\_Tariff\\_E.pdf](http://www.waterboard.lk/scripts/Downloads/Water_Tariff_E.pdf)

i - <http://delhijalboard.nic.in/>

j - [http://www.wsd.gov.hk/en/customer\\_services\\_and\\_water\\_bills/water\\_and\\_sewage\\_tariff/water\\_and\\_sewage\\_tariff/index.html](http://www.wsd.gov.hk/en/customer_services_and_water_bills/water_and_sewage_tariff/water_and_sewage_tariff/index.html)

k - <http://www.manilawater.com/downloads/tr.pse.sec.pdex.tariff.adjustment.jan2011.pdf>

l - [http://www.mayniladwater.com.ph/uploaded/2011\\_tariff.pdf](http://www.mayniladwater.com.ph/uploaded/2011_tariff.pdf)

m - Asian Development Bank (ADB) and Ministry of Urban Development, Government of India (2007). "The 2007 Benchmarking and Data Book of Water Utilities in India". Accessed May 02, 2011. 15- <http://www.adb.org/Documents/Reports/Benchmarking-Data-Book-Utilities-in-India/2007-Indian-Water-Utilities-Data-Book.pdf>

### Timely Introduction of Regulations and Standards.

Economic growth is often linked with increasing pollution and emissions, but this does not need to happen. Environmental progress can commence sooner if developing nations introduce credible environmental regulation early in their growth process. More importantly, because certain costs of environmental degradation, such as infant mortality, are irreversible, Asian cities must act promptly and cannot rely on developing now and “cleaning up later.”

When discussing environmental regulations, it is important to note the fundamental asymmetry between interest groups (Olson 1965). Where there are a few polluters and each gains from the status quo, they have strong incentives to organize and work together to fend off corrective regulations. In contrast, the beneficiaries of regulations are often millions of people who are spread out and it is hard for them to organize. This asymmetry calls for government to step in to enact and implement relevant regulations.

The encouraging news is that some leaders in Asia have already committed to a green economy. In August 2008, the Republic of Korea’s President announced that green growth would be the basis for all future development in the country. The PRC has also committed to a low-carbon economy, increasing its earlier commitment for 8% of its primary energy to come from renewable sources by 2020 to 15%, amounting to 500 gigawatts in total (ESCAP, ADB, and UNEP 2012:70). In 2010, the PRC announced a program for five low-carbon pilot provinces and eight low-carbon pilot cities, with a strong focus on renewable energy. The program covers GHG accounting; low-carbon development planning; industrial and economic policy; and training of government officials on environmental protection, communications, and international cooperation.

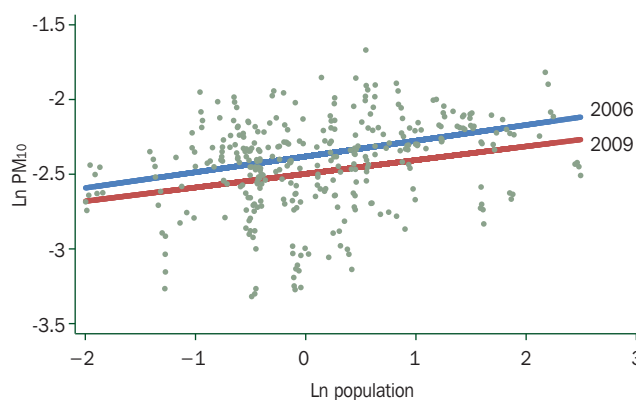
Emerging evidence demonstrates that Asia can defy the conventional EKC amid a rising scale of economic activity. For example, India has recently enacted a series of water and air regulations that have led to successfully controlling some vehicular emissions (Greenstone and Hanna 2011). And for the PRC, while Figure 31 shows a positive correlation between a city’s population size and its PM<sub>10</sub> level, over time the slope of this curve is diminishing and the line is shifting down. Holding city size constant, PM<sub>10</sub> is declining by roughly 5% per year, showing how new regulation and technology can work together to alleviate environmental problems amid urbanization. To a strict adherent of the EKC, these examples appear surprising because India’s per capita income in 2010 was roughly \$3,600 (World Bank 2011). Even the PRC per capita income is well below the turning points estimated

in this chapter or reported in the typical cross-national EKC literature (Grossman and Krueger 1995, Hilton and Levinson 1998).

Increasing the regulatory stringency for new vehicles and phasing out old ones is crucial for cutting emissions and pollution (Hilton and Levinson 1998). For example, the US has been able to sharply reduce its ambient air pollution by enacting ever more stringent emissions standards for new vehicles. Asia’s nations are following suit. The PRC has enacted stringent new vehicle emissions standards: National Standard I (initiated in 1999 for light vehicles); II (2004); III (2007); and IV (2008, but only applied in selected cities)—which are equivalent to the Euro I, II, III and IV standards.<sup>14</sup> For each standard, the implementation date for heavy vehicles was later than that for light vehicles. Meanwhile, the implementation date of each standard version was always 2–3 years earlier in large cities such as Beijing and Shanghai than elsewhere. Beijing will impose National Standard V (equivalent to Euro V) in 2012.

In the Philippines, the government has passed a series of vehicle emissions standards, including the Clean Air Act 1999, which mandates the implementation of emission standards. The sale of leaded gasoline and engines that use it was banned in 2000. In addition, the Philippines has enacted tougher new and light duty motor vehicle regulations so that in 2003–2007 new vehicles had to meet Euro I emission standards; models built during 2008–2015 are required to meet Euro II emission standards; and beginning in 2016, by an administrative order, Euro IV emission standards will be followed.

Figure 31 Shift in Fitted PM<sub>10</sub> Line in PRC Cities



Note: Ln = natural logarithm.  
Source: Zheng et al. (forthcoming).

<sup>14</sup> Details on the Euro standards can be found on the TNO Science Report, p. 15 available at [http://ec.europa.eu/environment/air/pdf/euro\\_5.pdf](http://ec.europa.eu/environment/air/pdf/euro_5.pdf)

Turning to industry emissions, regulations can facilitate relocation of traditional manufacturing. However, if major cities have more stringent regulation than smaller ones and rural areas, the different standards create an incentive for dirty activity to migrate to less populated areas, triggering a “race to the bottom.” For example, if educated “superstar cities” such as Shanghai enforce more stringent environmental standards than poorer areas, a type of “domestic pollution havens effect” would emerge. Indeed, an unintended consequence of differential clean air act regulation is that dirty manufacturing does migrate to less regulated areas (Becker and Henderson 2000, Kahn and Mansur 2010).

One solution is to develop special green zones for these industries. See Box 4 for a good example. Another is to mobilize public pressure by launching awareness campaigns so the public becomes informed of the benefits of reducing pollution. When the effects of pollution only become apparent in the medium to long term, the public may not be sufficiently aware of the issues and ultimate costs. In this case, education and public awareness campaigns are important and effective for stepping up measures to prevent a “race to the bottom.”

Meanwhile, polluters may be required to report their ecological footprints. In Indonesia, manufacturers are required to announce their emissions of toxic substances into the air, land, and water. National newspapers publish the names of the worst offenders and this information creates a powerful shaming mechanism nudging companies to take a second look at their production processes. The information can be used by communities to launch a media campaign against heavily polluting companies. Also, making allowance for victims to sue emitters and polluters would incentivize factories to invest in emissions control equipment.

The environmental impacts of suburbanization (such as that around Mumbai) are elevated carbon footprints, expensive housing, more commuting, and increased conversion of urban fringe land for housing. To promote compact cities (see the next subsection), regulations on building height restrictions are worth special mention. Sridhar (2010) finds that such restrictions, as measured by the floor area ratio, are significantly associated with deflecting population away from India’s city centers to the suburbs. While the floor area ratio in Singapore and Tokyo is roughly 20 and in Shanghai it is 8, it is just over 1 in three large Indian cities (Chennai, Delhi, and Mumbai). The inability to build up displaces economic activity to

the suburban fringes. For example, only 12% of Mumbai’s population lives within 10 kilometers (km) of the central business district but 39%–64% of the people live within the 10 km radius in Bangkok, Jakarta, Shanghai, and Seoul (Brueckner and Sridhar 2012).

**Public Transport in Cities.** Urban transport is a major contributor to environmental degradation. To minimize pollution from transport, it is essential to reduce the distance of each passenger’s travel and promote use of mass public transport. While congestion and vehicle emission pricing offers direct incentives for reducing the social costs of private vehicles, high quality public transit offers a complementary avenue for reducing demand for private vehicles and their use.

As Glaeser, Kahn, and Rappaport (2008) found, the most crucial factor for promoting the use of mass public transport is to ensure mobility within and between cities, because speed is a key determinant in people’s decisions to use private vehicles versus urban public transport. A subway system provides rapid transport and many of Asia’s emerging cities have sufficiently high population densities to ensure its cost effectiveness.

Another option is to introduce bus rapid transit (BRT). Almost 50 years ago, transport experts such as Meyer, Kain, and Wohl (1965) argued that dedicated bus lanes can achieve speeds that encourage people to use public transport and reduce the use of private vehicles. A successful example is the Guangzhou BRT in the PRC. The system has resulted in 30% higher bus speeds, with buses travelling at 17–19 km per hour during peak hours, and an average time saving of 6.63 minutes per BRT trip. This is equivalent to saving 30 million passenger-hours each year. The system has been very popular, with bus riders’ satisfaction rising from 29% in December 2009, before the BRT was implemented, to 65% after it started operating in February 2010. In 2011, the system moved 843,000 passengers per day. At peak times, the hourly flows of passengers can reach 27,400 per direction, with 350 buses moving per direction. (Newman and Matan, forthcoming). For another example of BRT in India, see Box 5.

Other sustainable transport solutions are available and working. ADB is actively supporting green transport solutions across Asia, including low-cost electric vehicles in the Philippines, urban metrorail systems in Viet Nam, inland waterway transport in the PRC, and BRT systems in Bangladesh and Mongolia.

**Box 5 Bus Rapid Transit: The People's Way in Ahmedabad**

"Janmarg" (the people's way), in Ahmedabad city, India, is a successful example of a bus rapid transit (BRT) system. Janmarg is India's first full BRT system. The project was influenced by the successful Transmilenio system in Bogota and the BRT system of Curitiba. However, its planning and design was adapted to suit Ahmedabad's specific conditions. The BRT lines were planned based on the land use, population density, and areas of maximum accidents.

Janmarg has a network of 89 kilometers (km) throughout the city, connecting the central areas with outlying industrial, residential, and institutional areas. The buses travel on dedicated lanes in the center of the roads at an average speed of 26–29 km per hour. Ridership is 35,000 passengers per day on weekdays and 40,000 passengers per day on weekends with a peak hour frequency of 4 minutes. The buses have low floors allowing for easy access. The stations are well lit in the evening and are equipped with synchronized automatic sliding doors with digital displays fed by a centrally controlled intelligent transport system. That system is linked to a global positioning system on each BRT bus, and advises waiting passengers when the next bus and the one after it are expected to arrive. Fares are collected and tickets issued mainly at ticket counters at the stations allowing for rapid boarding.

Sources: Newman and Matan (forthcoming), Institute for Transportation and Development Policy (2010).

## Promoting New Frontiers

As Asians become more affluent and consume more, merely relying on savings from efficiency improvement and conservation is far from enough. In the long run, the ultimate solution of urban environmental problems lies in promoting new frontiers by adopting more advanced technology, embracing new forms of cities, and increasing the use of alternative energy sources.

**Technology Advance.** The major force that helps shift the EKC or the urbanization–environment curve lies in technology advance. For Asia, a benefit of developing late is the opportunity to "leapfrog" older technology and adopt newer technology developed elsewhere. Research has shown the importance of keeping trade tariffs and quotas low with nations that export green products. This will lead to cleaner new capital stock.<sup>15</sup> A classic example is using cell phones rather than land lines: the former requires much less physical infrastructure. Another example is that Europe and the US have already developed low emissions technologies for cars, industry, and power plants, and Asian economies can import the technology. While such technologies may be relatively expensive at present, their prices will continue to fall with time.

<sup>15</sup> For an example of poor capital stock because a nation is closed to international trade, see Erdbrink (2012).

In particular, modern waste-to-energy technology provides a sustainable means of waste management. It reduces waste volume and generates clean energy at the same time (Kaushal 2012)—"killing two birds with one stone." Many Asian cities, including Singapore and Tokyo, have large biomass-to-energy plants (Box 6). In the Philippines, Puerto Princesa has one of these plants. In 1999, Puerto Princesa joined the Cities for Climate Protection campaign, pledging to reduce its CO<sub>2</sub> emissions by 10% annually, equivalent to 16,535 tons per year, against its 2010 forecast. To help achieve this goal, in February 2010 the city installed a biodigester plant at its sanitary landfill to provide renewable energy through biogas. The plant is a public–private partnership project with Philippine Bio-Sciences Company, and produces up to 1 megawatt of power, providing power to a fleet of e-jeps and e-trikes and thus completing a green loop (Newman and Matan forthcoming).

Another example is the Surat Thani biomass power plant in Thailand which utilizes the wastes of local industries to generate renewable energy for local residents at low cost. The plant commenced operations in 2007 and uses empty fruit bunches (EFBs) from six palm oil mills in the province as a primary input (UNFCCC 2007). The plant generates 70,168 megawatt-hours of electricity yearly from 252,600 tons of EFB. The electricity is sold to the local electricity grid. This innovation also provides additional income to farmers—before the plant started operations, the EFBs had no commercial value and were left to decay at solid waste disposal sites.

**Box 6 From Waste to Energy in Singapore**

Singapore has four waste-to-energy incineration plants—Tuas, Senoko Waste-to-Energy Plant, Tuas South Incineration Plant, and Keppel Seghers Tuas Plant—and an offshore sanitary landfill, Semakau Landfill. The four plants have a total capacity of up to 7,600 tons of waste per day.

The Tuas South Incineration Plant has the largest capacity, at 3,000 tons of waste per day and a power generation capacity of 80 megawatts. The plant cleans flue gas before releasing it using a three part system. The flue gas is first passed through an electrostatic precipitator, which removes 95% of the fly ash and dust particles. This is then passed through a catalytic fabric filter system to remove the remaining particles. Further, a hydrated lime powder is mixed with the flue gas to reduce the acidity of the gas. This is then dispersed into the air through two 150-meter tall chimneys. The heat produced by the incineration process is used to generate electricity, 20% of which powers the plant and the excess is sold to Singapore Power. The plant uses recycled industrial wastewater in its boilers along with captured exhaust steam. Scrap steel extracted from the incineration ash is sold to a local steel mill.

The four plants produce sufficient electricity to provide 2%–3% of the national electricity demand.

Sources: National Environment Agency (2012), Newman and Matan (forthcoming).

Asian cities can also lead innovations in green technology. The success of Baoding in the PRC is illuminating. Baoding embarked on a green growth path as early as 1992 when the Baoding Industry High-Tech Development Zone was established. The city had made a conscious effort (led by the mayor) not to pursue traditional industries. Since then, Baoding has had a strong economic growth rate, which is attributed to a 40% growth in companies that produce and deploy low-carbon technologies (particularly wind, photovoltaic and thermal solar, biomass, and energy-efficient technologies). This has resulted in 20,000 jobs in clean energy technologies. At the national level, the PRC leads the world in many clean technology sectors, including wind turbines, solar photovoltaic hardware, and high-speed rail technologies. In 2008, the PRC became the largest producer of clean technology, which earned more than \$54 billion (€44 billion) or 1.4% of its GDP (ESCAP, ADB, and UNEP 2012: 53).

**Creating Environment-Friendly Cities.** It is well recognized that Asia simply cannot follow the urban development pattern of the US where the majority of people live in suburbs and drive to work in cities. Such urban sprawl encourages use of private cars and generates extra demand for roads within a metropolitan area, scaling up air pollution and emissions. In such cities, public transport can enter a “death spiral” as political support for improving mass transit shrinks (Glaeser and Kahn 2004).

As Asia develops its cities, urban planners are making irreversible investment decisions, the effects of which will be seen and felt for decades. Policy makers must consider these impacts both now and for many years to come when constructing new cities or transforming the existing ones. In nations that succeed in creating an open system of cities, new urbanites and firms will have a greater degree of choice over where to locate. Such choices as “voting with your feet” can help protect new urbanites against degradation of the quality of life in cities.

Three forms of cities are recommended for Asian policy makers to consider when constructing new or transforming existing cities.

**Green Cities.** A green city encompasses environmentally-friendly methods of transport, including provisions for walking and cycling, clean air, good quality water, predominant consumption of renewable resources, ample green space, energy-saving buildings and support for recycling. Some Asian nations are launching exciting experiments in designing new green cities. One example is Caofeidian near Tianjin, which was listed in 2005 as a pilot area for developing a recyclable/circular economy

(industrial ecology) in the PRC. The pilot area covers 74.3 square kilometers and is expected to have a population of 800,000 by 2020 (CSUS 2010). Specific environmental criteria include that 60% of the trips within the city will be by public transport, average water use will be 180 liters per person daily, and daily per capita electricity consumption will be merely 8 kilowatt hours. These targets contrast with an average of 278 liters of water usage per person for a group of Asian cities and 14.97 kilowatt hours of electricity per person for Beijing residents in 2008 (Economist Intelligence Unit 2011).

Projects such as Caofeidian provide a role model for the rest of Asia. Creating a nascent green economy entails many unknowns. As nations such as the PRC experiment, the rest of Asia can learn from the experience and adopt ideas that succeed. In this sense, experimentation is a public good that should be subsidized.

**Satellite Cities.** During a time of economic growth and rapid urbanization, there is a valid concern that cities may grow “too much.” Individual households and firms may gain from moving to an existing large city but they often do not consider the impact on pollution or traffic congestion. When millions of new households and thousands of firms agglomerate in a small geographic area the quality of life can deteriorate quickly. One strategy for reducing the likelihood of megacities growing too big is to foster the development of satellite cities. Such cities increase the menu of destination options and offer a type of safety valve for the megacities.

Constructing satellite cities requires investing in transport infrastructure, electrification, and water treatment in areas near megacities. While it is difficult to anticipate which workers and firms will choose to move to satellite cities, empirical evidence shows that many households and firms do relocate. This is almost inevitable given the diversity of preferences and the different needs of firms for factors of production such as land. Households and firms may take advantage of the opportunity to pay lower rents and to live and work in a less congested, polluted location. The emergence of satellite cities will reduce the environmental costs of megacity growth, particularly if the concepts of green, compact, and eco-efficient cities are adopted (Box 7).

The development of satellite cities close to the major cities can allow for the “win-win” solution of taking advantage of the economic agglomeration benefits in a megacity while deflecting some of the growth to subcenters. In this age of information technology, many firms do not need daily contact with businesses and government activities in the megacity. Firms and individuals that require physical contacts once a week or

once a month with those in the megacity can profitably locate in a nearby satellite city or subcenter and use new public transport infrastructure when needed to travel to the megacity.

However, the provision of transport infrastructure to satellite cities can have the adverse effect of increasing urban sprawl as urban development generally follows the transport infrastructure. Empirical research in the PRC and the US highlights the role that highway construction plays in deconcentrating economic activity and promoting growth in areas far from the center cities. Baum-Snow (2007) finds that highway construction in the US allowed people and jobs to migrate from city centers to the suburbs. Similar results are being discovered for the PRC (Baum-Snow et al. 2012). Using 1990–2010 data and focusing on the change in core city populations and radial road capacity of major highways, they find that each highway causes a 3.0%–5.5% decrease in the core city population.

One solution is to adopt transit-oriented development (Cervero 2008), wherein a local system of compact, walkable satellite cities is built and centered

around high quality train systems, without heavy reliance on highways and major roads for connection. This makes it possible to live a higher quality life with greatly reduced need for driving and burning fossil fuels.

*Compact Cities.* Another strategy to control urban sprawl is to promote investment in fast and clean transport infrastructure focused on bringing people to the city center. This reduces the use of private vehicles and encourages the private sector to increase its investment in city centers, making the centers crucial hubs of economic activity in metropolitan areas. The result is more compact monocentric cities that are less sprawling and have lower carbon footprints, and help preserve green space.

A good example is Beijing, where the city government is investing to improve local transport infrastructure. Five new subway lines were built during 2000–2009, with a total investment of \$7 billion (¥50.3 billion),<sup>16</sup> Zheng and Kahn (forthcoming) investigate how such “place-based” investments affect the private sector.<sup>17</sup> They find that developers are increasing the number of housing units in the vicinity of the Olympic infrastructure and that new restaurants have opened in the neighborhoods close to the Olympic Village and the new subways. The combination of public and private sector investment helps attract educated and wealthier individuals to move to an area.

While a compact urban form is a necessary condition for an environment-friendly city, it is not sufficient. Cities that use a huge amount of electricity cannot easily be green. One solution is to take advantage of computer technology to create “smart” green cities. In this regard, dynamic pricing and smart grid energy distribution (see the next subsection and Box 8) will empower urban consumers to economize on resource consumption.

#### **Alternative Energy and Distributed Energy Systems.**

Use of energy sources other than coal must be promoted. While coal-fired power plants tend to have a lower average cost at the point of generation, they need large and expensive distribution systems. Also, local pollution and GHG emissions from these plants are considerable (Davis 2011, Zhou et al. 2006).

Two recommendations can be made for energy production. First, build new power plants away from population centers and increasingly use natural gas, wind, and solar resources. Although transmission line losses can be substantial, a transmission grid can allow

#### **Box 7 Kawasaki Eco-Town**

Eco-towns are industrial clusters oriented to recycling, creating a circular, efficient, and closed-loop system. In 1997 a decision was taken to redevelop a 2,800 hectare large-scale industrial area in Kawasaki City into one of Japan’s first eco-towns. Recycling facilities were constructed to reuse wastes from the industries as resources for other industries, specifically the steel, nonferrous metal, cement, chemistry, and paper industries. Notable examples of the reuse of by-products and waste are

- Showa-Denko, which uses waste plastics to produce ammonia in its manufacturing process;
- Corelex Co. Ltd., which produces incinerated ash from its paper processing and provides this by-product as a raw material to cement companies;
- Corelex Co. Ltd., which uses the surplus electricity of JFE Steel Co. Ltd.;
- Nihon Yakin Co. Ltd., which uses the waste materials JFE Steel Co. Ltd. generates from recycling electric appliances to produce a special alloy; and
- Tokyo Electric Power Company, which supplies steam from its thermal electric power plant to surrounding industries.

In addition, a 20,000-kilowatt solar power plant commenced operation in 2011.

This eco-town project helps to reduce carbon dioxide emissions by 160,000 tons per year and illustrates how old industrial areas can be transformed into a more efficient eco-town. By 2006, Japan had 26 such eco-towns.

Source: Newman and Matan (forthcoming).

<sup>16</sup> The official exchange rate is ¥6.5/\$1.

<sup>17</sup> “Place-based” refers to solutions or investments that focus on developing local economies, improving local quality of life, fostering a commitment to the local community and environment, and enhancing the area’s unique sense of place.

for a separation between where power is generated and where it is consumed (Box 8 describes a smart grid system of energy distribution). In areas that are suitable for large-scale wind and solar power generation, investment in a national electricity grid and transport merits support. Such investment can contribute to sharply reducing the carbon emissions associated with power generation. For example, the Nanjing Eco High Tech Island due for completion by 2020 in the PRC is being developed in partnership with the government of Singapore. The development aims to house high tech industries that focus on sustainability. Some of its eco-efficiency features include optimized use of water and power, an emission-controlled and smart wastewater management system, a waste-to-resource approach, a sustainable transport network, and sustainable industry development.

Second, local energy systems can be built as part of a city. Because they are small scale and involve low-pollution natural gas and zero pollution renewables, such systems can fit into the heart of a city and provide power where it is needed. Box 9 provides examples of small-scale energy systems in garment factories in Bangladesh.

Asia has already made some progress with alternative energies. In terms of power generation, only 41% of Indonesia's electricity is generated by coal and this percentage was as low as 26% in the Philippines in 2008, where 32% of its power was generated using natural gas. In terms of power consumption, a switch from petroleum to compressed natural gas or electricity can make a significant difference in air pollution levels. A good example is from Delhi in India, where the largest source of air pollution was buses and auto rickshaws that burned diesel or oil without adequate combustion or control over the pollutants. The city took the initiative to switch the fuel of its public transport vehicles to compressed natural gas (Box 10), with positive results.

Moreover, Asia already leads the growth in investment in renewables, which outstrips that in

fossil fuels (Newman and Wills 2012a, 2012b). In 2004, renewable investment in developed nations was \$15 billion and in the developing world it was \$4 billion. By 2011, they switched their positions, when Asia invested \$72 billion in renewables, \$2 billion more than the developed world. Asia's investments in renewables are largely from the PRC and India, although other Asian nations are beginning this transition too. In 2010, the PRC invested \$48.9 billion in renewables, 28% more than in 2009, making it the world leader in renewables investment. In the same year, India increased its investment by 25% to \$3.8 billion, and other developing Asian countries increased their investments by 31% to \$4 billion (UNEP and Bloomberg New Energy Finance 2011).

#### Box 9 **Small-Scale Energy Systems: Garment Factories in Bangladesh**

There are many small-scale distributed energy systems scattered throughout the Asian region. Many small garment factories in Bangladesh are making efforts to contribute to sustainable development, particularly by using renewable energy and reducing their electricity consumption.

Medlar Fashion in Ashulia, Dhaka, has an innovative cooling system in the rooms where the garment makers work. A metal screen covered by a layer of flowing water was installed on one wall with exhaust fans installed on the opposite. This system passes air entering the room through the water screen, cooling it. As a result, the factory provides a cool working environment without air conditioning. Further, the factory's electricity is supplied by a gas-powered generator with a transformer connected to the local power grid, which is able to provide standby power if necessary. These are examples of small-scale, distributed technologies that are context-specific and low cost.

Source: Newman and Matan (forthcoming).

#### Box 10 **Delhi's Shift to Compressed Natural Gas**

The Delhi government presented its first action plan to combat air pollution in December 1996. On 28 July 1998, the Supreme Court of India ordered that a compressed natural gas (CNG) program be introduced to reduce air pollution, with the following guidelines:

- (1) All buses in the city should run on CNG fuel by 31 March 2001.
- (2) Financial incentives would be provided for taxis and three-wheeled vehicles ("auto rickshaws") to use CNG.
- (3) Post 1990 taxis and auto rickshaws would be converted to run on CNG.

In the few years after the Supreme Court decision, CNG was introduced in 10,200 buses; 52,623 auto rickshaws; 10,350 private cars; 4,497 mini buses; 5,043 taxis; 5,909 light commercial vehicles; and 689 other commercial vehicles. This is a remarkable switch. All public transport in Delhi now runs on CNG.

Source: Newman and Matan (forthcoming).

#### Box 8 **Smart Grid Energy Distribution**

A smart grid system can control the generation and distribution of energy, allowing for an integrated monitoring system, an electricity information collection system, electric vehicle charging facilities, and a communications and information network. To achieve this smart power grid, the telecommunications, internet, and information services will be in one network using the same optical fiber composite low-voltage cable. The smart grid will enable a two-way electricity system that can distribute and monitor electricity to and from users, allow for local renewables to enter into the grid system and for electric vehicle batteries to store electricity, and provide electricity to the grid when necessary.

Source: Authors.



## Protecting the Poor

As Asia continues urbanizing, an increased number of urban poor is almost inevitable. Protecting the poor is essential for developing an inclusive and harmonious society (Wan and Francisco 2009). In this context, special attention should be given to disaster-induced vulnerability, as discussed in the section “Environmental Implications of Urbanization in Asia.” Eradicating slums in Asia also presents a considerable challenge.

**Protecting the Poor from Natural Disasters.** The urban poor face the greatest risk from natural disasters because they tend to live in areas that are most prone to shocks such as floods and hurricanes, and they have the least assets for protecting themselves. Likewise, around the world, rich nations suffer fewer deaths from natural disasters than poor ones (Kahn 2005).

One solution is to build new cities in relatively safer locations and to invest strategically to “climate proof” the new development against these risks. In addition, improved forecasting models by climate scientists may offer more geographically refined predictions. Urbanization should be nudged toward areas that have physical attributes that increase their resilience to likely climate shocks (Kahn 2010). Also, cities with risk of flooding and cities that experience extreme weather events should receive special attention when national governments consider regional development plans.

In addition, zoning policy and infrastructure investment affect exposure to natural disasters. As the growth of cities such as Shenzhen shows, within a couple of decades millions of people can move to an area. The ability to house them hinges on whether new housing can be cheaply built where people seek to live. The recent literature highlights that government regulation and topography determine property supply (Zheng, Fu, and Liu 2006; Saiz 2008). The government needs to consider natural disaster risks when making or amending housing regulations, so that a large amount of new housing and urban infrastructure can be constructed in areas with the greatest potential for resiliency to climate change.

**Urban Slum Policy.** Feler and Henderson (2011) argue that cities in a majority of developing countries attempt to inhibit in-migration by servicing the informal sectors poorly. The result is that the poor cluster in urban slums, often on government land or outside the center city’s political jurisdiction. In most cases, slum areas are not connected to water and electricity, their living conditions are unpleasant, and their lack of basic services results in bad public health conditions.

The conventional view is that at least some redistribution must take place at the national level to provide slum dwellers with services. If the central government transfers some of its tax revenue to cities for improving slum areas, it will mitigate the disincentives that cities face in supplying “clean cities” services to poor neighborhoods.

Three policy options can be considered for addressing the slum issue. First, grant formal property and land ownership to urban slum dwellers. This gives them the incentive to invest more in the area’s maintenance and upkeep. Second, where cost-effective, provide housing vouchers to the poor who can relocate to higher quality neighborhoods. These vouchers could be indexed by the number of years that a person or household has lived in the city so that long-term residents would receive more assistance. Finally, provide better water, sewage, and electricity infrastructure to slum areas. This is likely to lead to a better living environment and thereby attract more urban migrants, some of whom are not poor, to live in the area.

Some urban slums in Asia are being successfully rehabilitated with green economy technologies. A good example of urban slum improvements focusing on place-based strategies is the Kampung Code River in Yogyakarta, Indonesia (Box 11).

## Finance, Transparency, and Accountability

The various policies suggested in this chapter may not be implemented unless funding for public investments, including subsidies for renewables, is available and transparency and accountability of politicians and government are ensured.

**Financing for Green Cities.** All cities worldwide face the challenge of financing urban development as upfront capital expenditures and ongoing maintenance investments are usually large. This is why central governments often provide 70% or more of the upfront costs for major infrastructure projects such as new subway systems.

In designing a public revenue system, including collection of property taxes, service charges, income taxes, and so on, there will be efficiency versus equity tradeoffs. The poor can only afford to pay a little for services. Providing low service tariffs to the poor would reduce consumption inequality but would also give no incentive for suppliers to provide the services. One solution is dynamic pricing as discussed earlier. Another

is to educate wealthier households, which may be willing to cross-subsidize the poor if they are made aware of the consequences of possibly contracting diseases from the poor who become ill due to lack of access to clean water, sanitation, or solid waste disposal.

Land leases can be used to raise funds for urban development. This practice is controversial as it only provides a one-time payment for the length of a lease, which may be quite long and thus may not provide a sustainable revenue stream. However, the PRC has been successful so far in securing funds from land leases for urban development. Henderson (2009) recommends that the PRC adopt an ad valorem property tax on residential and business property, including urban villages following their integration into city administration. A property tax provides an incentive for cities to accept new residents and an explicit tax base to finance their services. It also ensures an annual flow of revenue. And in growing cities where real estate prices are appreciating, a property tax will yield a larger stream of revenue for the government. Thus, in 2012, the PRC's cities are considering introducing a property tax.

Another way to raise funds is to issue municipal bonds. When cities acquire access to capital markets, they can reduce reliance on the national government. This policy has helped US cities reduce water pollution, infant mortality, and the rural–urban death rate differential. Very much like today's Asia, in the late 19th century US cities faced the enormous task of building large water systems. This frequently requires transporting water from far away and investing in water treatment plants. The costs were too large for private firms. Consequently, US cities issued

municipal bonds to build such infrastructure (Cutler and Miller 2006).

The PRC's central government has recently granted a few local governments the right to issue municipal bonds. In October 2011, Shanghai and Shenzhen cities and Guangdong and Zhejiang provinces were authorized to sell debt themselves instead of going through the central government for financing (AFP 2010). If the PRC's efforts prove successful, other Asian cities may follow suit by tapping into international capital markets. Venkatachalam (2005) provides a case study of Tamil Nadu, regarding India's efforts to use international capital markets to raise funds. Generally speaking, development of local bond markets can help lower risk premiums and facilitate the financing process.

**Incentivizing Politicians to Ensure Transparency and Accountability.** Politicians who seek to maintain power and be reelected have strong incentives to provide what their constituents value, including a better environment. For example, a mayor who relies on political support from the growing urban middle class will have incentives to pursue a green city agenda. Seoul's Cheonggyecheon Restoration Project is an example of realizing the desire to improve the quality of life in the central business district (Box 12). This project removed a major highway and created new green space and access to a river (Lee 2006). Early indicators suggest that the quality of life has improved sharply in the area and there is little evidence of increased traffic congestion caused by the land use conversion.

One low-cost way to incentivize politicians is for independent nongovernment organizations to create "report cards" that can be distributed to increase voters'

#### Box 11 **Kampung Code River: Upgrading a Slum**

Kampung Code River is an informal settlement built on government-owned land along the banks of the Code River in Yogyakarta, Indonesia. Previously, the site was a refuse dump. The informal settlement comprises 30–40 families whose members work in the nearby city market. Many of the squatter dwellings were constructed of plastic covered cardboard. In 1983, the government wanted to demolish the informal settlement but was persuaded by community leaders, the local church, and others to upgrade the site instead.

There were a number of concerns about upgrading the site. The area was subject to seasonal flooding and was very narrow and steep, separated from the river by a stone retaining wall. The first steps of the project were to rehabilitate the river and to reinforce the retaining wall against flooding. To do this, a better environment was created by planting the riverbanks with potted tropical plants. The next step was to help formalize the settlement by building a community center,

providing a place where people could gather to discuss issues and where school children could study. The community center was built from bamboo with mat flooring, with the exterior façade painted by local residents and volunteer art students.

Then electricity and a sewage system were provided by the government, with communal toilets near the living areas and far from the river. The government also built a common septic tank and new toilets fitted with plumbing and vents for air circulation. The sewage from the septic tank was then collected and taken to the city sewage plant. Finally, the residents were educated about the necessity for a clean and healthy environment.

Although the scale of this project is small, the improvements achieved within the given constraints are immense and humane, making it a compelling model for other cities with similar problems.

Source: Newman and Matan (forthcoming).

awareness of recent pollution trends and of initiatives that individual politicians have pursued to achieve green cities. Politicians could be judged on objective criteria, such as reducing local ambient air pollution to meet World Health Organization standards. Other criteria include the percentage of city residents who do not have access to toilets or drinking water. In addition, the national government could foster a competition between cities and rewarding cities that objectively achieve improvements in “green metrics.”

Improvements in information technology such as wide-spread access to smart phones and social networking reduce the cost of collecting and disseminating information about real time environmental hazards. Cities that actively encourage citizens to report new challenges (by e-mailing or texting in a photo and a street address), can incentivize politicians to be responsive to constituent needs.

#### Box 12 Restoring the Cheonggyecheon River

In 1968, the elevated Cheonggye Expressway (16 meters wide and 5.6 kilometers long) was constructed over the Cheonggyecheon River, which runs through downtown Seoul. In early 2000, a plan was devised to revive the area as an eco-friendly downtown. The removal of the expressway and the revitalization of the river were key elements of the plan.

Under the leadership of the then mayor beginning in 2005, the highway was demolished and the river was restored, with remarkable impact on the city center by providing space and an improved environment. The river restoration has also enhanced the area's biodiversity, increasing the number of plants, fish, and birds; improved air and water quality; decreased noise levels; decreased the urban temperature by an average of 3.6°C in places up to 400 meters from the river; decreased the number of vehicles entering the city center by 2.3%; increased public transport use by 5.7%; and increased property values in the area. Approximately 500,000 people walk along the river promenade every week.

Source: Newman and Matan (forthcoming).

## Summary

The first policy options discussed aim at reducing the current use of fossil fuels and other resources under given technologies while the next ones aim at advancing the underlying technologies and substituting dirty fuels with renewables. The poor must be protected from harmful environmental changes as Asia urbanizes rapidly. Finally, incentives must be in place so that good policies, once they are devised, are actively implemented.

As economies in the region are at widely different stages of development and have varied regulatory structures and economic landscapes<sup>18</sup>, individual countries must carefully evaluate and then select interventions that best suit their specific situations. Some countries may rely more on technology transfer, while others may decide to invest in research and development for greenness. Some policies require significant investment, such as subways, but others, such as dynamic pricing for water and electricity and BRT do not. In all cases, politicians must be motivated and the public needs to be mobilized toward green urbanization in Asia.

## Major Findings and Conclusion

Although Asia's urbanization level has been lower than that of the rest of the world, the region is catching up speedily. As a result, Asia's city population has been expanding on an unprecedented scale. The region is now home to almost half of the world's urbanites. Asia has more megacities than all other regions combined, and even more megacities are forming. To a large extent, urbanization has played a key role in Asia's rise, particularly through its role in nurturing exporters of manufactured goods.

But rapid urbanization poses significant quality-of-life challenges such as rising inequality and crimes. In particular, it adds tremendous pressure on the local and global environment. Today, Asia has some of the world's most polluted cities and most steeply rising GHG emissions. And most of the unique features of Asia's urbanization tend to aggravate environmental problems.

Despite these challenges, there are reasons to be optimistic, as urbanization can help address environmental degradation.

- **Urbanization comes with positive externalities and economies** that entail improved productivity, implying less resource consumption and a lighter ecological footprint for a given level of output. The economies of scale in providing environment-related infrastructure and services such as drinking water and garbage disposal add to the benefits of urbanization for the environment.

<sup>18</sup> For example, the *hukou* system in the PRC where individuals and households are registered with local governments and require official permission to relocate can be utilized to regulate population flows from both the origin and destination of migrants, with both benefits and costs. This is not possible in many other countries.

- **Urbanization promotes innovation and technology advance**, which is already reflected in increasing exports from Asia of renewable and green technology, equipment, and products. The sheer size of Asia's market is conducive to such innovations and the spread of green technologies.
- **Urbanization leads to lower fertility and higher educational attainment.** Lowering fertility helps reduce total emissions and pollution, and more education is also found to benefit the environment. The educated and increasingly affluent middle class, as a powerful social group whose size grows with urbanization, is more supportive of the introduction and implementation of relevant regulations than are the other strata of society.
- **Urbanization can foster the relocation of traditional manufacturing industries as well as the development of service industries.** Both are beneficial to the environment. In particular, the development of less polluting service industries is a major force for environmental improvement, and underlies the declining segment of the conventional EKC.

As such, it would be counterproductive for government to contain urban expansion even for environmental concerns. However, Asia has not reached the peak of its EKC, which indicates a grim outlook in the absence of well-designed interventions. Urbanization, while producing the benign effects just described, also comes with environmental "bads." Cities are dense collections of millions of people, thousands of firms, and vast and varied physical infrastructure. As nobody owns the urban atmosphere, common space, and local rivers, these millions of individuals and firms contribute to environmental degradation through hundreds of small daily choices ranging from commuting patterns to use of electricity to public smoking.

Thus, the development and implementation of policies promoting green cities is urgently needed. In the long run, interventions to facilitate the use of renewables and adoption of new technologies are indispensable. In the short or medium term, policies such as congestion pricing and increasing block water/electricity tariffs can be implemented to help reduce resource consumption. For developing economies to avoid "brown" development now that must be cleaned up later at a vast cost, timely introduction and enforcement of environmental regulations are essential. Finally, urban planning must consider the irreversible nature of urban investment by embracing new urban forms such as compactness, transit-oriented development, and green cities.

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## **PART II**

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# **Millennium Development Goals Trends and Tables**





## Introduction to the Millennium Development Goals

At the Millennium Summit in September 2000, the largest gathering of world leaders in history adopted the United Nations Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty, and setting out a series of targets with a deadline of 2015. These have come to be known as the Millennium Development Goals (MDGs). In 2007, the MDG monitoring framework was revised to include four new targets agreed on by member states at the 2005 World Summit, namely, full and productive employment and decent work for all, access to reproductive health, access to treatment for HIV/AIDS, and protection of biodiversity. The indicators for these new targets became effective in January 2008, and this is the framework used here to monitor progress toward achieving the MDGs.

Box 1 lists the eight MDGs and the corresponding targets and indicators for monitoring progress.

Box 1 Millennium Development Goals	
Goals and Targets (from the Millennium Declaration)	Indicators for Monitoring Progress
<b>Goal 1: Eradicate extreme poverty and hunger</b>	
Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below \$1 (PPP) per day <sup>1</sup> 1.2 Poverty gap ratio 1.3 Share of the poorest quintile in national consumption
Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below \$1 (PPP) per day 1.7 Proportion of own-account and contributing family workers in total employment
Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8 Prevalence of underweight children under 5 years of age 1.9 Proportion of population below minimum level of dietary energy consumption
<b>Goal 2: Achieve universal primary education</b>	
Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	2.1 Net enrollment ratio in primary education 2.2 Proportion of pupils starting grade 1 who reach the last grade of primary 2.3 Literacy rate of 15–24 year-olds, women and men
<b>Goal 3: Promote gender equality and empower women</b>	
Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratios of girls to boys in primary, secondary, and tertiary education 3.2 Share of women in wage employment in the nonagricultural sector 3.3 Proportion of seats held by women in national parliament
<b>Goal 4: Reduce child mortality</b>	
Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate	4.1 Under-5 mortality rate 4.2 Infant mortality rate 4.3 Proportion of 1-year-old children immunized against measles
<b>Goal 5: Improve maternal health</b>	
Target 5.A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio 5.2 Proportion of births attended by skilled health personnel
Target 5.B: Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate 5.4 Adolescent birth rate 5.5 Antenatal care coverage (at least one visit and at least four visits) 5.6 Unmet need for family planning
<b>Goal 6: Combat HIV/AIDS, malaria and other diseases</b>	
Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15–24 years 6.2 Condom use at last high-risk sex 6.3 Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS 6.4 Ratio of school attendance of orphans to school attendance of nonorphans aged 10–14 years
Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs
Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria 6.7 Proportion of children under 5 sleeping under insecticide-treated bednets 6.8 Proportion of children under 5 with fever who are treated with appropriate antimalarial drugs 6.9 Incidence, prevalence, and death rates associated with tuberculosis 6.10 Proportion of tuberculosis cases detected and cured under the Directly Observed Treatment Short (DOTS) course

*continued.*

Box 1 Millennium Development Goals (continued)

Goals and Targets (from the Millennium Declaration)	Indicators for Monitoring Progress
<b>Goal 7: Ensure environmental sustainability</b>	
Target 7.A: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources	7.1 Proportion of land area covered by forest 7.2 CO <sub>2</sub> emissions, total, per capita and per \$1 GDP (PPP) 7.3 Consumption of ozone-depleting substances 7.4 Proportion of fish stocks within safe biological limits 7.5 Proportion of total water resources used
Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.6 Proportion of terrestrial and marine areas protected 7.7 Proportion of species threatened with extinction
Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8 Proportion of population using an improved drinking water source 7.9 Proportion of population using an improved sanitation facility
Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	7.10 Proportion of urban population living in slums <sup>2</sup>
<b>Goal 8: Develop a global partnership for development</b>	
Target 8.A: Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system  Includes a commitment to good governance, development, and poverty reduction—both nationally and internationally	Some of the indicators listed below are monitored separately for the least developed countries, Africa, landlocked developing countries, and small island developing states. Official Development Assistance (ODA) 8.1 Net ODA, total and to the least developed countries, as percentage of OECD/DAC donors' gross national income 8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water, and sanitation)
Target 8.B: Address the special needs of the least developed countries  Includes: tariff and quota free access for the least developed countries' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction	8.3 Proportion of bilateral ODA of OECD/DAC donors that is untied 8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes 8.5 ODA received in small island developing states as a proportion of their gross national incomes
Target 8.C: Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)	Market Access 8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty 8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries 8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product 8.9 Proportion of ODA provided to help build trade capacity
Target 8.D: Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Debt Sustainability 8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative) 8.11 Debt relief committed under HIPC and MDRI Initiatives 8.12 Debt service as a percentage of exports of goods and services
Target 8.E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	8.13 Proportion of population with access to affordable essential drugs on a sustainable basis
Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	8.14 Telephone lines per 100 population 8.15 Cellular subscribers per 100 population 8.16 Internet users per 100 population

AIDS = acquired immunodeficiency syndrome, CO<sub>2</sub> = carbon dioxide, DAC = Development Assistance Committee, GDP = gross domestic product, HIPC = heavily indebted poor countries, HIV = human immunodeficiency virus, MDRI = Multilateral Debt Relief Initiative, ODA = official development assistance, OECD = Organisation for Economic Co-operation and Development, PPP = purchasing power parity.

<sup>1</sup> For monitoring country poverty trends, indicators based on national poverty lines should be used, where available.

<sup>2</sup> The actual proportion of people living in slums is measured by a proxy, represented by the urban population living in households with at least one of the four characteristics: (a) lack of access to improved water supply; (b) lack of access to improved sanitation; (c) overcrowding (three or more persons per room); and (d) dwellings made of nondurable material.

Source: Millennium Development Goals Indicators: The Official United Nations Site for the MDG Indicators. July 2012.

## Progress toward Achieving the Millennium Development Goals and Targets

The progress of ADB developing members toward achieving the MDGs and targets is discussed in this part. For each goal, there is a short analysis together with supporting statistical information presented in figures, boxes, and tables on the performance of countries toward achieving the goals. Progress classification was determined using the methodology outlined in Technical Note I of the report, Accelerating Equitable Achievement of the MDGs (UNESCAP, ADB, and UNDP 2011). The rate of change is calculated using the linear time trend of a suitable transformation of the indicator values. On

the basis of their performance to date, countries are classified as **early achiever, on track, slow progress, no progress**, and **regressing**, as measured by target indicators estimated from data available since 1990:

- Early achievers – countries that have already reached the target;
- On track – countries that are expected to meet the target by 2015;
- Slow progress – countries that are expected to meet the target after 2015;
- No progress – countries that started at desirable levels relative to the 2015 goal but exhibited either a downward trend or no change in more recent years;
- Regressing – countries that have actually slipped backward relative to 1990 or earliest reference year.

Many of the figures in the following analyses that illustrate progress on the MDGs refer to the “earliest” and “latest” year, reflecting the earliest year and the latest year for which data are available. Ideally, all countries would have the necessary statistics for every year from 1990 to the current year. However, lack of data from economies reflect the difficulty in collecting and disseminating data. The statistical tables are the sources for the figures used in the analysis and show the actual years to which the data refer.

In addition, the progress classification has been made for indicators that have explicit targets, such as \$1.25-a-day PPP poverty, maternal and infant mortality, school enrollment, and gender parity. In monitoring progress, “cutoffs” were introduced for several targets (see Table 1), which are the cutoffs adopted in the UNESCAP, ADB, and UNDP (2011) report. For example, a cutoff of 2% is used for the target “halving extreme poverty between 1990 and 2015”. This means that when the percentage of those living on less than \$1.25 a day is reduced to 2%, the target is considered to have been reached even if 2% is not half of the percentage in 1990.

For indicators whose target is to reverse the trend, such as in HIV prevalence, TB prevalence, TB incidence, forest cover, protected area, CO<sub>2</sub> emissions, and consumption of ozone-depleting substances, only four categories were used—indicators trending in the “right” direction since 1990 are categorized as Early achievers; indicators showing no change at all over the period are categorized as On track; indicators trending in the “wrong” direction are categorized as Off track – Regressing; and indicators that started with high levels but exhibited a downward trend in more recent years are categorized as No progress.

**Table 1. Cutoff Values for Selected MDG Indicators**

No.	Indicator	MDG Target	Cutoff
1.1	Proportion of population below \$1.25 (PPP) a day	half the 1990 percentage	2%
1.8	Prevalence of underweight children under 5 years of age	half the 1990 percentage	none
2.1	Total net enrollment ratio in primary education (both sexes)	100%	95%
2.2	Proportion of pupils starting grade 1 who reach the last grade of primary (both sexes)	100%	95%
3.1	Ratios of girls to boys in primary, secondary, and tertiary education	1	0.95
4.1	Under-five mortality rate per 1,000 live births	one-third the 1990 percentage	none
4.2	Infant mortality rate per 1,000 live births	one-third the 1990 percentage	none
5.1	Maternal mortality ratio	reduce by $\frac{3}{4}$ (without)	none
5.2	Proportion of births attended by skilled health personnel	reduce by $\frac{3}{4}$ (without)	none
5.5	Antenatal care coverage (at least one visit)	100%	95%
6.1	HIV prevalence	reverse the trend	none
6.9a	TB incidence	reverse the trend	none
6.9b	TB prevalence	reverse the trend	none
7.1	Forest cover	reverse the trend	none
7.2	CO <sub>2</sub> emissions	reverse the trend	none
7.3	ODP substance consumption	reverse the trend	none
7.6	Protected area	reverse the trend	none
7.8	Population using improved water sources (urban and rural combined)	half the 1990 percentage (without)	none
7.9	Population having access to improved sanitation facilities (urban and rural combined)	half the 1990 percentage (without)	none

CO<sub>2</sub> = carbon dioxide, ODP = ozone depletion potential, PPP = purchasing power parity, TB = tuberculosis

Table 2 illustrates the MDG progress classification, adapted from the 2011 joint UNESCAP, ADB and UNDP report, which reflects the progress that developing economies in Asia and the Pacific region have made over two decades. The classifications into five categories were made for indicators where data were available from UN bodies that have been designated to monitor the MDGs and also from the United Nations Millennium Development Goals Indicators database (United Nations 2012) following the July 2012 update. Differences in progress classification between Table 2 and the UNESCAP, ADB and UNDP report arise not due to methodological processes but differences in data used.

Table 2. Millennium Development Goals Progress Tracking

Goal	1		2		3			4		5			6			7					
	\$1.25 per day poverty	Underweight children	Primary enrolment	Reaching last grade	Gender Primary	Gender Secondary	Gender Tertiary	Under-5 mortality	Infant Mortality	Maternal Mortality	Skilled birth attendance	Antenatal care (≥ 1 visit)	HIV prevalence	TB incidence	TB prevalence	Forest cover	Protected area	CO <sub>2</sub> emissions	ODP substance consumption	Safe drinking water	Basic sanitation
<b>Developing Member Economies</b>																					
<b>Central and West Asia</b>																					
Afghanistan		▶			▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Armenia	●	▶	●	●	●	●	▶	▶	▶	▶	▶	◆	▶	▶	▶	▶	▶	▶	▶	▶	▶
Azerbaijan	●	▶	▶	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Georgia	▶	●	●	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Kazakhstan	●	▶	●	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Kyrgyz Republic	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Pakistan	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Tajikistan	●	▶	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Turkmenistan	●	▶					▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Uzbekistan	▶	●	▶	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
<b>East Asia</b>																					
China, People's Rep. of	●	●	●	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Hong Kong, China			●	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Korea, Rep. of			●	●	●	●	▶	▶	▶	◆	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Mongolia	●	●	●	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Taipei, China			●		●	●									▶	▶	▶	▶	▶	▶	▶
<b>South Asia</b>																					
Bangladesh	▶	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Bhutan	●	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
India	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Maldives	●	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Nepal	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Sri Lanka	●	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
<b>Southeast Asia</b>																					
Brunei Darussalam <sup>a</sup>			●	●	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Cambodia	▶	▶	●	▶	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Indonesia	●	▶	●	▶	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Lao PDR	▶	▶	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Malaysia	●	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Myanmar		▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Philippines	▶	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Singapore		▶					▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Thailand	●	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Viet Nam	●	▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
<b>The Pacific</b>																					
Cook Islands			●	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Fiji		▶	●	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Kiribati			●	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Marshall Islands			●	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Micronesia, Fed. States of	▶		●		●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Nauru			●		●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Palau			●		●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Papua New Guinea		▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Samoa		▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Solomon Islands			▶		●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Timor-Leste	▶	▶	▶		●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Tonga			●		●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Tuvalu			●		●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶
Vanuatu		▶	▶	▶	●	●	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶	▶

● = Early Achiever    ▶ = On track    ■ = Slow    ◆ = No progress    ◀ = Regressing

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Staff estimates based on UNESCAP, ADB, and UNDP method for assessing the MDGs (Accelerating Equitable Achievement of the MDGs, February, 2012).

Table 2 also used updated data where data for latest years are available and revisions on data on earliest years were adapted. In addition, differences in MDG Progress classification between Table 2 and the joint UNESCAP, ADB and UNDP report may arise due to the reclassification used in this report, which decomposes the UNESCAP classification “regressing/no progress” group into two separate groups, particularly for indicators with explicit targets. For indicators whose target is to reverse the trend, countries that started with high levels but exhibited a downward trend or no change in more recent years were classified as “no progress” instead of UNESCAP classification “off track”.

Extreme poverty, universal primary education and gender goals (MDG 1, MDG 2 and MDG 3) have been generally achieved earlier than their target dates with South Asia lagging behind in their gender goals. The problem in primary education is ensuring the completion of primary schooling, and not merely increasing enrollment. Under-5 mortality and infant mortality goals (MDG 4) remain to be a problem in the region. Since infant mortality is a significant proportion of under-5 mortality, focusing efforts on reducing infant mortality can translate to much lower under-5 mortality ratios. There is a slow progress in meeting maternal mortality goals (MDG 5), especially in Central and West Asia and Southeast Asia. Also, a number of economies in Central and West Asia and Southeast Asia are regressing in reducing HIV prevalence (MDG 6). TB incidence and prevalence goals (MDG 6) have also been achieved in most countries in the region, but with some Central and West Asia economies regressing in reducing TB incidence. With respect to environmental sustainability (MDG 7), forest cover is depleting, especially in Southeast Asia but there has been an increase in areas placed under protection. CO<sub>2</sub> emissions for the region are increasing, which is directly related to the increase in economic activities and higher incomes in the region. Ozone depleting substance consumption targets have been achieved due to the phasing out of chlorofluorocarbons as envisioned in the Montreal Protocol. Finally, the provision of basic sanitation proves to be more problematic than provision of safe drinking water.

## Data Sources and Comparability with Other Publications

Data used for assessing the economies’ progress in achieving the MDGs are presented in the following statistical tables. These were compiled from the UN bodies that have been designated to monitor the respective MDGs and the United Nations Millennium Development Goals Database. For some indicators, data for the Pacific countries were sourced from the National Minimum Development Indicators (NMDI) Database maintained by the Secretariat of the Pacific Community, while for Taipei, China, data were sourced from the Directorate-General of Budget, Accounting and Statistics (DGBAS) website. New data points for earlier years are added while the most recent estimates are revised whenever data become available. Data have been verified to the extent possible, but responsibility for the reliability of the statistics remains with the agencies that are listed as the sources of each table.

Differences that exist between this publication and reports from other organizations on the performance of countries in meeting the MDGs may be due to several factors, including data sources, dates when statistics were collected and published, and different methodology used in assessing the progress.

## Selected References

- UNESCAP, ADB, and UNDP, 2012. *Accelerating Equitable Achievement of the MDGs*. Asia-Pacific Regional Report 2011/12. United Nations Economic and Social Commission for Asia and the Pacific, Asian Development Bank, and United Nations Development Programme. Bangkok. (<http://asia-pacific.undp.org/>), accessed August 2012.
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## Goal 1: Eradicate Extreme Poverty and Hunger

### Snapshots

- Despite the global financial crisis, a majority of the region's economies achieved declining poverty rates, but the latest poverty headcount ratios remain over 20% in eight economies, including three of the region's most populous ones.
- The depth of poverty also declined significantly. While many poor people are moving out of extreme poverty, a lot remain moderately poor.
- While most economies are able to significantly lower their proportions of working poor, many still have working poverty rates above 10% and vulnerability rates above 50%.
- A majority of the economies reduced their proportions of underweight or malnourished children and undernourished populations, although the most recent rates of child malnourishment and undernourished remain high in many economies—above 20% and above 10%, respectively.

### Introduction

Goal 1 has three targets:

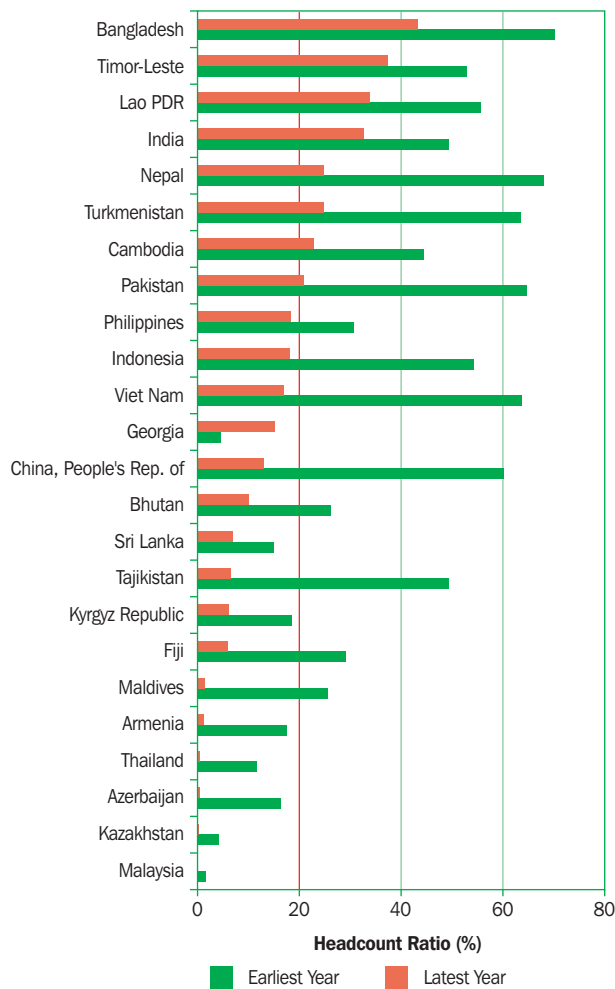
- 1.A: *Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.* The “dollar-a-day” poverty threshold is a purchasing power parity (PPP) adjusted dollar that has the same purchasing power in all countries. The threshold was reviewed and increased to \$1.25 (PPP) at 2005 prices. For convenience it is still referred to by its old name.
- 1.B: *Achieve full and productive employment and decent work for all, including women and young people.* Measures for this target are the employment-to-population ratio, the percentage of workers living on less than \$1.25 a day, and the proportion of own-account and contributing family workers in total employment. The first indicator is a measure of the ability to provide employment and the other two are indicators of decent work.
- 1.C: *Halve, between 1990 and 2015, the proportion of people who suffer from hunger.* Hunger and malnutrition are measured by the percentage of children under 5 years of age who are underweight (malnourished) and the proportion of population consuming less than the daily minimum energy requirement (undernourished).

### Key Trends

**Extreme poverty continued to decline despite the global financial crisis, but remained over 20% in some large economies.** People living on less than \$1.25 a day are considered to be extremely poor. Based on the latest estimates (Figure 1.1) the share of people under the \$1.25-a-day poverty line declined in all economies except Georgia. However, eight of the region's economies still had rates of extreme poverty that were over 20%, including three of the most populous—Bangladesh (43.3%), India (32.7%), and Pakistan (21.0%). While Asia and the Pacific has achieved a significant reduction in extreme poverty, the region remains home to about two-thirds of the world's extremely poor.

Figure 1.2 shows the annualized percentage point change in the proportion of population that is extremely poor. Turkmenistan's progress was the most impressive, with a 7.7 percentage point reduction per year. Bhutan, Fiji, the Maldives, Nepal, Tajikistan, and Viet Nam also made significant annual reductions. The extreme poverty rate declined by 2.6 percentage points annually in the People's Republic of China (PRC), the region's most populous economy; and in Pakistan, the rate declined by 2.6 percentage points; Indonesia, by 1.8; Bangladesh, by 1.5; and India, by 1.0. The PRC had the largest decline in the total number of extremely poor people, with annual reductions of 28.3 million extreme poor during

Figure 1.1 Proportion of Population Living on Less than \$1.25 a Day, Earliest (1990–2003) and Latest (1996–2010) Years (%)

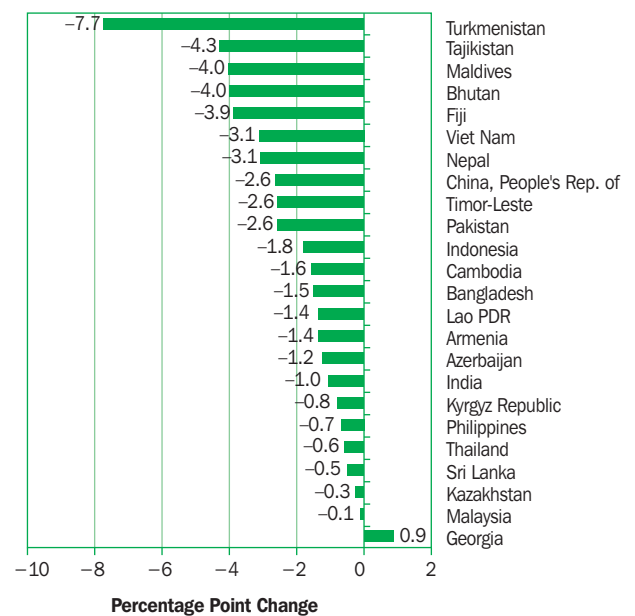


Source: Table 1.1.

1990–2008; next was India, with annual decreases of 4.2 million during 1994–2010. The annual reduction in Sri Lanka’s extreme poverty rate is smaller than that in other South Asian countries, but its rate for the latest year (2007) is much lower than that in large countries such as Bangladesh and India.

Sustained growth despite the global financial crisis was one of the main drivers of poverty reduction in the region and most of its economies with declining extreme poverty rates. Nepal presents an interesting case. During 1996–2010, its extreme poverty declined from 68.0% to 24.8%. This is equivalent to a 3 percentage point decline per year, but annual growth in per capita gross domestic product (GDP) was roughly 2% in the same period, raising the question: What could have accounted for the declining poverty? The Nepal 2010 MDG Report may provide an answer, as it indicates that remittances played an important role (Government of Nepal 2010). Remittances increase per capita income, and the

Figure 1.2 Annual Percentage Point Change in Proportion of Population Living on Less than \$1.25 a Day (percentage points)



Source: Table 1.1.

report indicates that even the remote areas and the poorest received remittances. About 1.4 million households (or about 30%) received remittances in 2008. Inequality in Nepal also declined by 2.4 percentage points during the same period, which could have a positive effect on poverty.

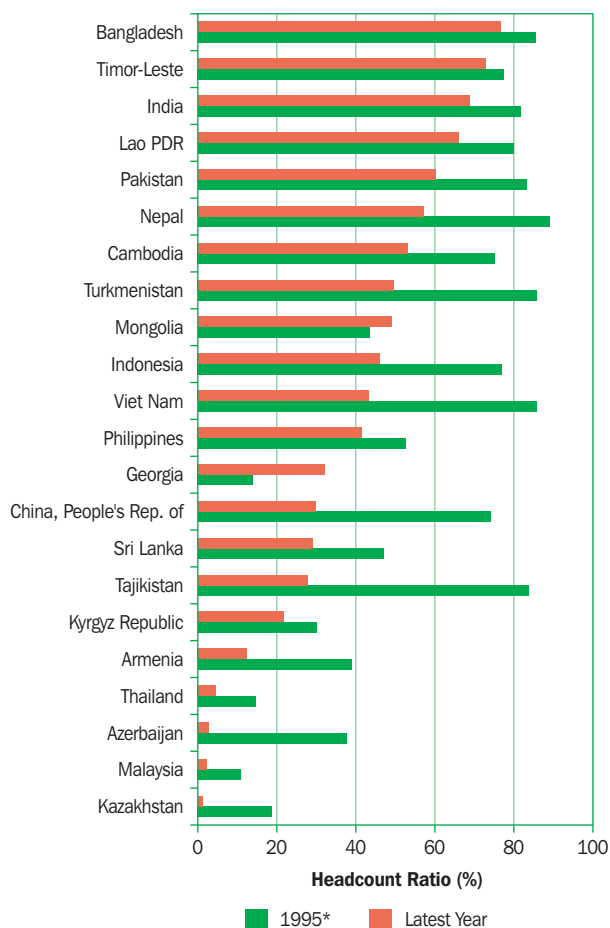
However, in Georgia, growth has not been translated into lower extreme poverty. In fact, the opposite has occurred, despite the government’s efforts to reduce poverty. The Georgia Human Development Report 2008 indicates possible reasons, including (1) shocks such as flooding in rural areas and closure of the Russian market to selected Georgian products, which affected the most vulnerable groups of society more severely than the rest of the population; (2) the declining share in GDP of agriculture, which employs half of the population; (3) social payments that are not well targeted; and (4) taxes and high inflation that reduce the poor’s disposable income for consumption (UNDP 2008).

While growth has been robust in most economies, the gains were not equally distributed across subpopulations. Rising inequality has a negative effect on poverty reduction, a finding that is highlighted in the *Asian Development Outlook 2012* theme chapter on inequality (ADB 2012). To further illustrate, based on estimates in MDG Table 1.1 and Regional Table 1.14, several of the economies that enjoyed an improved income distribution (or reduced inequality as measured by the Gini coefficient) showed significant progress in poverty reduction. These include

the Maldives (4.0 percentage point reduction annually), Fiji (3.9 percentage point), and Viet Nam (3.1 percentage point). Economies that experienced rising inequality could have achieved greater poverty reduction if their inequality had declined or at least remained the same. For example, in Bangladesh, the Gini coefficient increased from 27.6 to 32.1 during 1992–2010, but if the distribution of income had remained as it was in 1992, then extreme poverty could have declined by about 7 percentage points more during the same period, holding all other things constant.

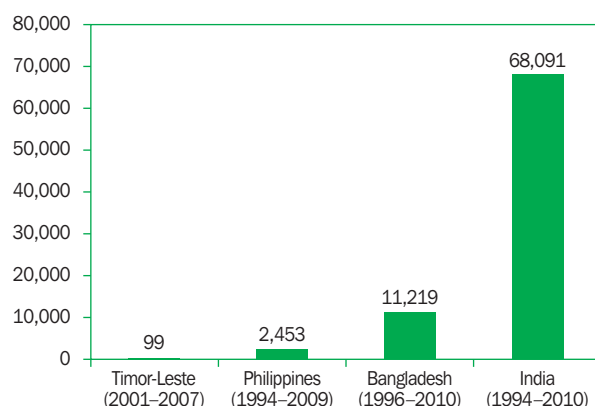
Figure 1.3 presents the proportion of population below the \$2-a-day poverty line. The ratios at this poverty line declined in all economies except Georgia. Interestingly, while these ratios also declined in Bangladesh, India, the Philippines, and Timor-Leste, the number of poor living on less than \$2 a day actually increased (Figure 1.4) because in these countries, population growth outpaced poverty reduction measured at the \$2-a-day poverty line.

Figure 1.3 Proportion of Population Living on Less than \$2 a Day, 1995\* and Latest (1998–2009) Years (%)



Note: \* = refers to 1993–2001.  
Source: Regional Table 1.14.

Figure 1.4 Increase in People (in thousands) Living Below \$2-a-Day Poverty Line in Selected Economies



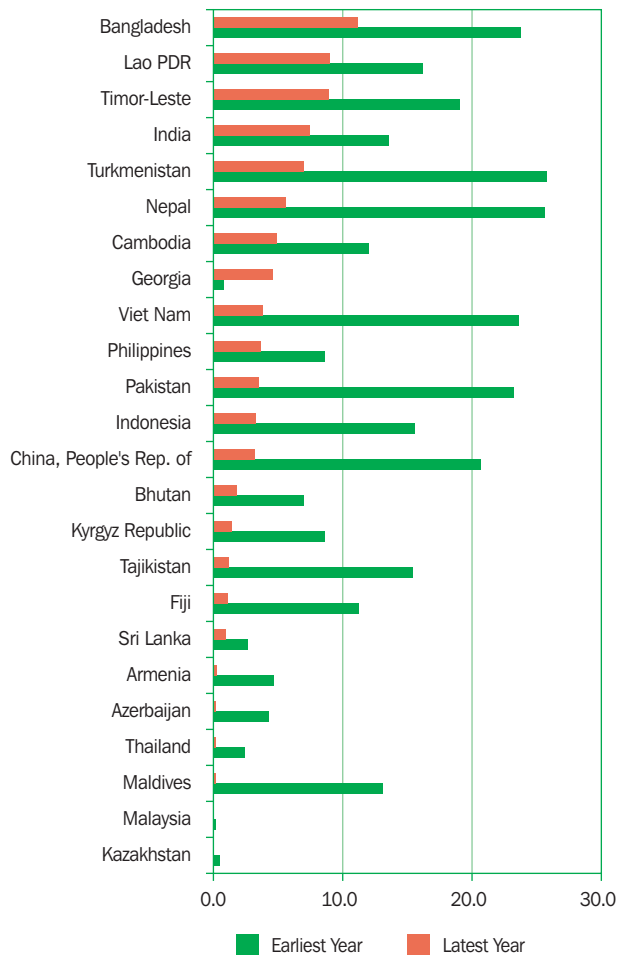
Source: Derived using Regional Table 1.14 and population data from PovcalNet Database.

**A majority of the economies have already achieved the poverty reduction target.** Of the 24 economies for which data are available, 17 have achieved the poverty target and Cambodia is very close to reaching the target by 2015. However, Bangladesh, India, the Lao People's Democratic Republic (Lao PDR), the Philippines, and Timor-Leste are progressing only slowly toward achieving the target, while Georgia is regressing and might not meet the target by 2015.

**Depth of poverty also declined significantly.** Poverty gap ratios, which reflect both the severity and incidence of poverty, declined in all economies for which data are available, except Georgia (Figure 1.5). A low poverty gap means a greater ease of bringing people above the poverty line. Despite significant declines in poverty gaps, they remain relatively high in some countries—Bangladesh (11.2%), the Lao PDR (9%), Timor-Leste (8.9%), India (7.5%), and Turkmenistan (7%) have the highest poverty gaps in the region.

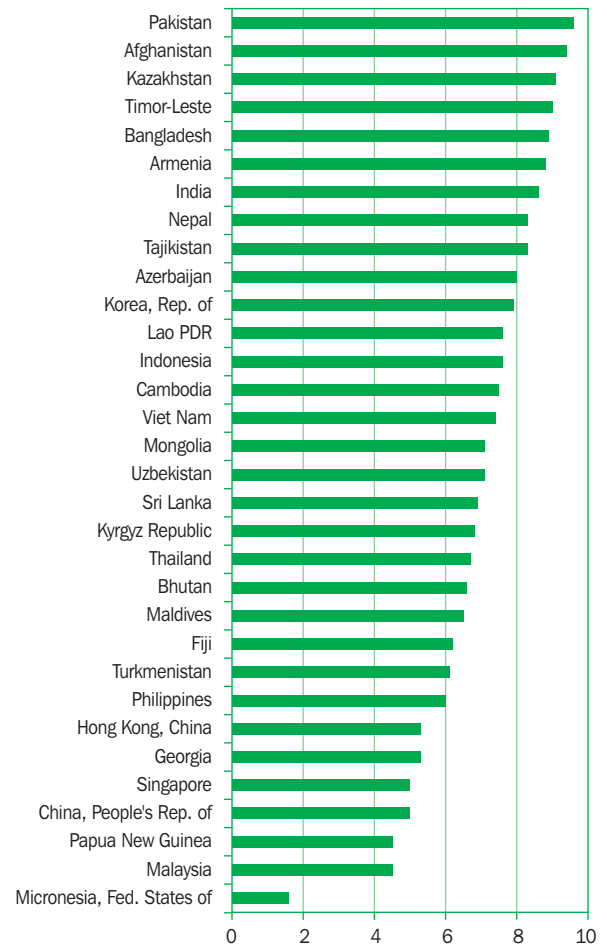
In relation to the poverty gaps, it is easier for countries to lift people over the \$1.25-a-day line of extreme poverty than to continue to move them over the \$2-a-day poverty line. In other words, while people are moving out of extreme poverty, they remain poor. People between the two lines are vulnerable because social payments and poverty reduction efforts are often directed toward the extreme poor and not the moderate poor. Wan and Sebastian (2011) indicate that, during 2005–2008 in Asia and the Pacific, the number of moderate poor (people living between the \$1.25- and \$2-a-day poverty lines) declined by only 18.4 million while the reduction in the extreme poor was 150 million.

Figure 1.5 Poverty Gap Ratios, Earliest (1990–2003) and Latest (1996–2010) Years (%)



Source: Table 1.1.

Figure 1.6 Share of Poorest Quintile in National Income or Consumption, 1996–2010 (%)



Source: Table 1.1.

**The poorest quintile's share of national income or consumption remains low.** The share that the bottom 20% of the population has of national income or consumption remains below 10% in all developing economies for which data are available. Figure 1.6 presents the share of the bottom 20% of national income or consumption for the latest available year. It is not surprising that the economies with the lowest ratios also have high inequality or Gini coefficients. The income share of the bottom 20% was only 1.6% in the Federated States of Micronesia in 2000; its Gini coefficient for the same period was 61%. In the PRC and Malaysia, where the poorest quintile's income share was less than 5% of national consumption, the Gini coefficients were 42% and 46%, respectively. In Pakistan, whose bottom quintile income share in national consumption is the highest, the Gini is only 30%.

**Much remains to be done in providing quality employment to the poor.**<sup>1</sup> The employment-to-population ratio, which typically falls between 50% and 75%, is an indicator of the ability to provide employment. Figure 1.7 shows that in 2011 most countries are within this range. At the high end of the range are Cambodia and Nepal, with employment-to-population ratios in 2011 exceeding 80%.<sup>2</sup> At the low end are Armenia (40.9%) and Afghanistan (45.1%). The Maldives put on a striking performance as its ratio expanded sharply, by 12.5 percentage points from 1991

1 Previous Key Indicators issues used the national estimates of employment-to-population ratio as gathered from the UNSD-MDG database. For this issue, the International Labour Organization (ILO) estimates from its Trend Estimation Model were used. For the proportion of working poor, ILO direct estimates were used except for economies and years with available poverty estimates from the World Bank's PovcalNet database but for which no national working poverty estimate is available. In such cases, estimates are derived from an ILO econometric model.

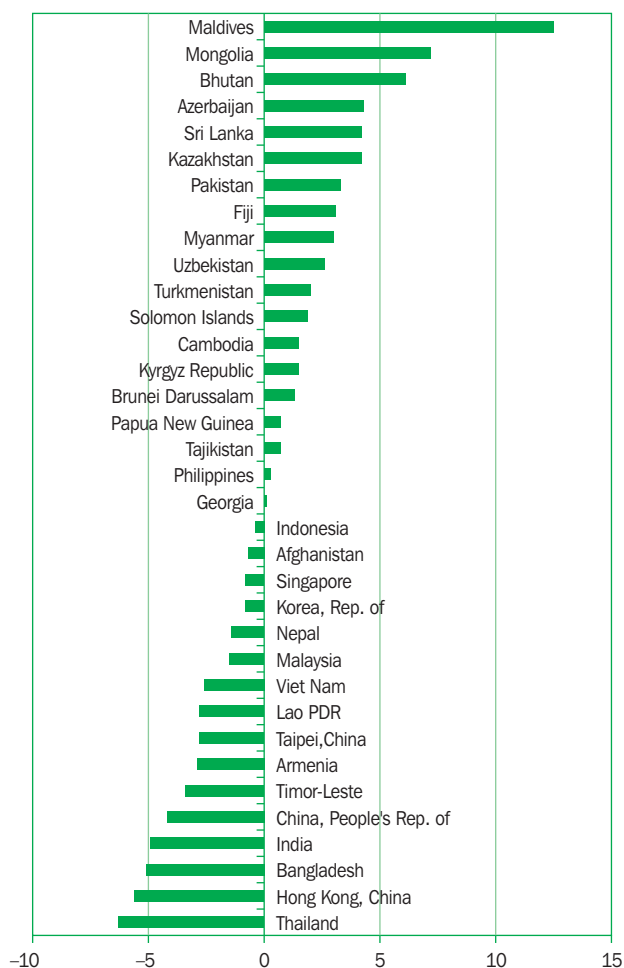
2 No optimal employment-to-population ratio is prescribed. However, the ratio should not be too high or too low. Ratios above 80% often occur in very poor countries and usually indicate an abundance of low quality jobs (ILO 2009).

Figure 1.7 Employment-to-Population Ratio, 2011 (%)



Source: Table 1.2

Figure 1.8 Percentage Point Change in the Employment-to-Population Ratio from 1991 to 2011 (%)



Source: Table 1.2

to 2011 (Figure 1.8). Further investigation reveals that this gain in employment had positive implications for poverty reduction as the proportion of vulnerably employed went up by 16.7 percentage points from 1990 to 2006 accompanied by a 24.8 percentage point drop in the proportion of working poor (Table 1.2).

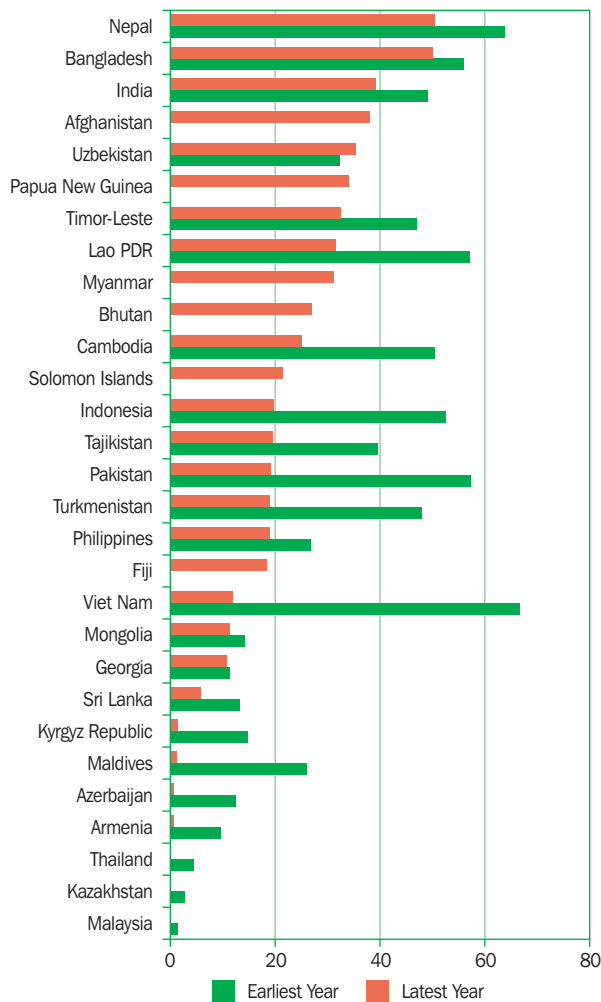
In terms of employment quality, the percentage of employed people living on less than \$1.25-a-day, or the “working poverty rate,” provides an indication of the lack of decent work. Figure 1.9 shows that, except for Uzbekistan, most of the region’s economies (for which data are available) have significantly reduced their proportion of working poor. Most notable are the remarkable declines in Viet Nam (54.7 percentage points from 1993 to 2008), Pakistan (38.2 percentage points from 1991 to 2006), and Indonesia (32.8 percentage points from 1993 to 2005). Thailand, Kazakhstan, and Malaysia achieved a zero working poverty rate in the latest year of available data (2004–2009). Armenia, Azerbaijan, the Maldives, and the Kyrgyz Republic joined the

ranks of achievers as they managed to reduce their working poverty rates to almost zero or to single-digit rates. Despite these gains, 21 economies in the region still have working poverty rates above 10%; three South Asian countries have the highest rates—India (39.2%), Bangladesh (50.1%), and Nepal (50.4%).

The proportion of vulnerable workers remains high in the region, with 11 economies registering latest year proportions over 60% (Figure 1.10).<sup>3</sup> The “vulnerable

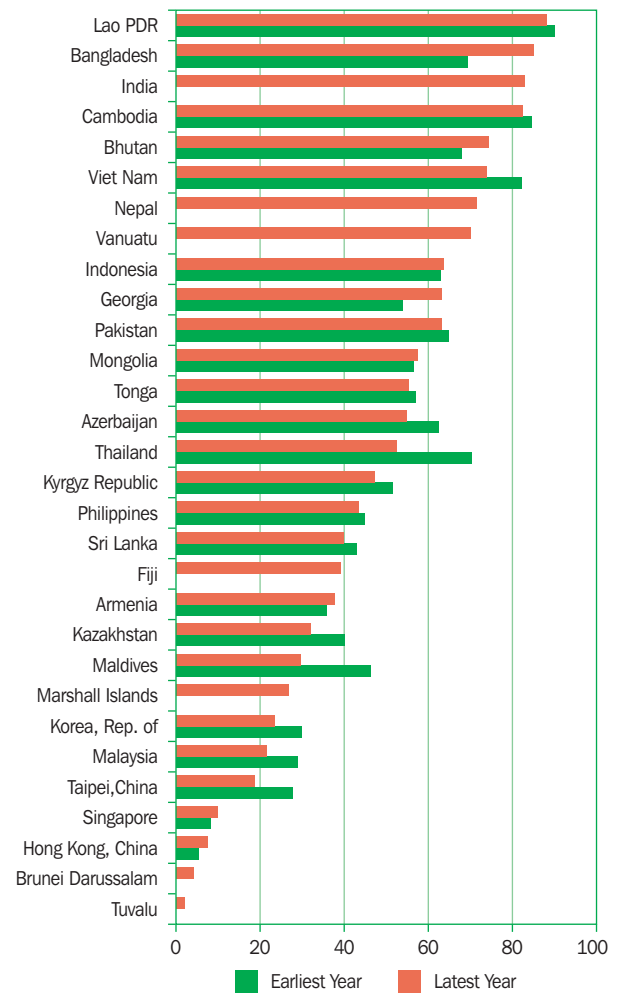
<sup>3</sup> Based on the *UN Millennium Development Goals Report 2011*, the Developing Region’s proportion of own-account and contributing family workers in total employment for 2009 is 60% (UN 2011). “Developing Region” refers to developing countries in Northern Africa, Sub-Saharan Africa, Latin America and the Caribbean, Caucasus and Central Asia, Eastern Asia, Southern Asia, Southeastern Asia, Western Asia and Oceania. The Report states: “since there is no established convention for the designation of ‘developed’ and ‘developing’ countries or areas in the United Nations system, this distinction is made for the purposes of statistical analysis only.” See [mdgs.un.org](http://mdgs.un.org) for the complete list of countries in the “Developing Region.”

Figure 1.9 Proportion of Employed People Living Below \$1.25 a Day, Earliest (1991–2002) and Latest (1996–2009) Years (%)



Source: Table 1.2.

Figure 1.10 Proportion of Own-Account and Contributing Family Workers in Total Employment, Earliest (1990–2007) and Latest (1991–2009) Years (%)



Source: Table 1.2.

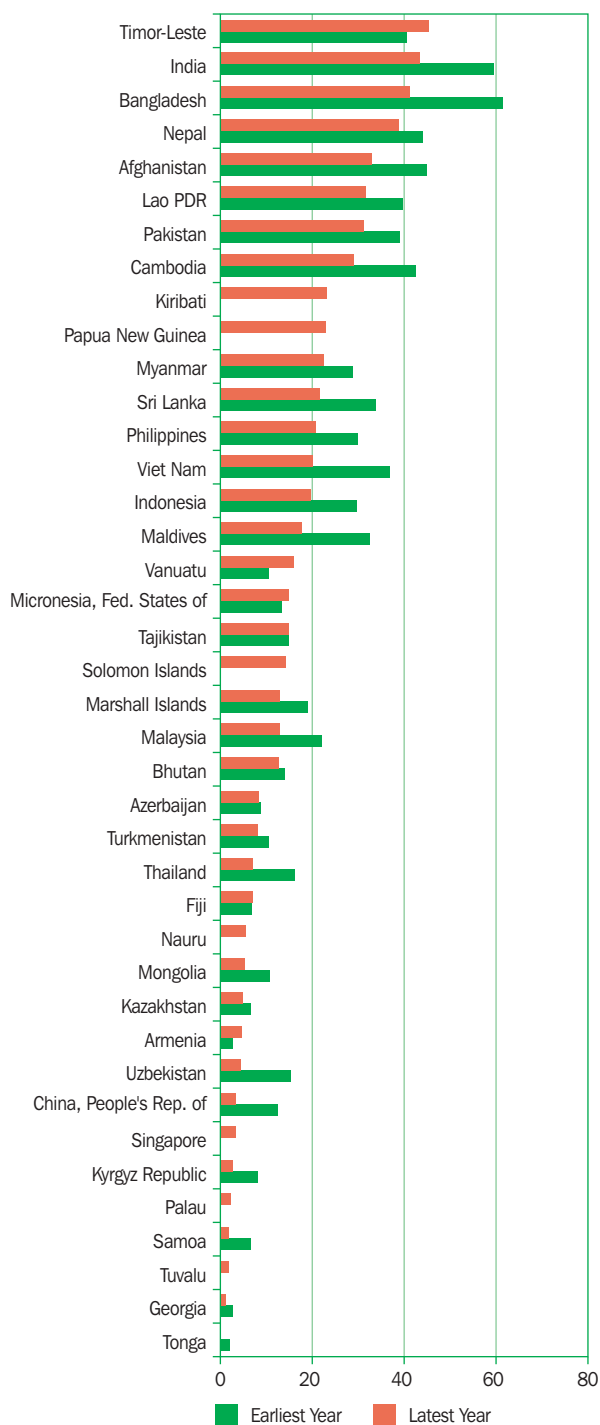
workers” category includes own-account and contributing family workers (ILO 2012b). In Bangladesh, conditions worsened as the share of vulnerably employed people expanded by 15.6 percentage points from 1996 to 2005. Conversely, two countries achieved a double-digit contraction in the share of employed people in vulnerable conditions—the Maldives by 16.7 percentage points from 1990 to 2006, and Thailand by 17.8 percentage points from 1990 to 2009.

**Decent gains in curbing hunger.** The MDG indicators for hunger and malnutrition are the proportion of under-5 children who are underweight (malnourished) and the proportion of population consuming less than the daily minimum energy requirement (undernourished). Substantial progress is recorded in curbing malnourishment, as the proportion from the earliest to latest years dropped by at least 10 percentage points in nine economies (Figure 1.11

and Table 1.3): Bangladesh (20.2), Viet Nam (16.7), India (16.0), the Maldives (14.7), Cambodia (13.6), Sri Lanka (12.2), Afghanistan (12.0), Uzbekistan (10.9), and Indonesia (10.2). Further, the proportion of malnourished children is generally declining except in Armenia, Fiji, the Federated States of Micronesia, Tajikistan, Timor-Leste, and Vanuatu, which registered slight or marginal increases. However, some economies still have over 30%<sup>4</sup> of their children malnourished in the latest year for which data are available (1999–2011), including Afghanistan, Bangladesh, India, the Lao PDR, Pakistan, and Timor-Leste. Malnutrition among children is a serious concern because it impacts their physical and mental development, and (eventually) their capacity to become productive members of the society.

4 UN (2011) gives the developing region’s proportion of malnourished children in 2009 as 23%.

Figure 1.11 Prevalence of Underweight Children under Five Years of Age, Earliest (1989–2005) and Latest (1999–2011) Years (%)



Source: Table 1.3.

For undernourishment, Georgia put on a momentous performance as the proportion of its population below the minimum level of dietary energy consumption plummeted by as much as 52 percentage points from the earliest (between 1990 and 1992) to the

latest year (between 2006 and 2008) (Table 1.3). Other economies that have made significant strides in reducing the proportion of undernourished population are Armenia (24 percentage points), Azerbaijan (22–27 percentage points), and Viet Nam (20 percentage points). Given that most economies have managed to lessen their shares of undernourished population, Uzbekistan's situation is rather bleak as its share grew, albeit slightly, by 6 percentage points. Among 31 developing economies with available data in 2006–2008, 20 still have 10% or more of their populations undernourished. Thus, much remains to be done before efforts to help people lead healthy and productive lives have truly paid off.

## Data Issues and Comparability

The \$1.25-a-day test for determining poverty and the calculation of poverty gaps require information on household income or household consumption expenditure, and the PPP dollar conversion rate for 2005. Both the measurement of household income or expenditure in national currencies and the calculation of 2005 PPPs will have relatively high error margins in many countries. Data based on the \$1.25-a-day poverty line are missing for most of the Pacific island countries. The availability of such data will help allow a better comparison of poverty incidence around the region. For the number of poor, population data from the PovcalNet Database of the World Bank were used to maintain consistency.

The computation of labor productivity uses data on the number of persons employed, which does not take into account the actual number of hours worked. Assuming a constant mix of economic activities, the best measure of labor input to be used in the computation of labor productivity would be the “total number of annual hours actually worked by all persons employed.” In addition, differences in the coverage of informal sector activities in the statistics of Asian Development Bank developing members may hamper the comparability of estimates of labor productivity growth.

For the employment-to-population ratio, estimates across countries often are not strictly comparable because nationally reported data differ, mostly in age coverage. However, data presented here are based on the ILO Trends Estimation Model, which are harmonized to account for differences in national data collection and tabulation methodologies.

The proportion of own-account and contributing family workers in total employment may not be able to capture vulnerable employment perfectly because while most own-

account workers are more vulnerable or worse off than salaried workers, this is not universally the case. Some salaried workers are in casual contracts offering little or no social protection. This, however, does not diminish the indicator's usefulness and relevance as high poverty rates are strongly correlated with large shares of vulnerable employment in less developed economies (ILO 2009).

The hunger indicators are based on standards devised by the Food and Agriculture Organization (FAO), United Nations Children's Fund (UNICEF), and World Health Organization (WHO). But while countries attempt to use the same standards, comparability is compromised by lack of regular data collection in many countries. Statistical techniques are typically used to extend data collected from household surveys to the full population. Such estimates may have large error margins.

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## Goal 1 Targets and Indicators

Table 1.1 **Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day**

	1.1 Proportion of Population below the Poverty Line (%)						1.3 Share of Poorest Quintile in National Income or Consumption (%)
	\$1.25 a Day (PPP)		National		1.2 Poverty Gap Ratio		Latest Year
	Earliest Year	Latest Year	Earliest Year	Latest Year	Earliest Year	Latest Year	
<b>Developing Member Economies</b>							
<b>Central and West Asia</b>							
Afghanistan	...	...	33.0 (2005)	36.0 (2008)	...	...	9.4 (2008)
Armenia	17.5 (1996)	1.3 (2008)	48.3 (2001)	35.8 (2010)	4.7 (1996)	0.3 (2008)	8.8 (2008)
Azerbaijan	16.3 (1995)	0.4 (2008)	49.6 (2001)	7.6 (2011)	4.3 (1995)	0.1 (2008)	8.0 (2008)
Georgia	4.7 (1996)	15.3 (2008)	28.5 (2003)	23.0 (2011)	0.8 (1996)	4.6 (2008)	5.3 (2008)
Kazakhstan	4.2 (1993)	0.1 (2009)	46.7 (2001)	5.3 (2011)	0.5 (1993)	0.0 (2009)	9.1 (2009)
Kyrgyz Republic	18.6 (1993)	6.2 (2009)	61.0 (2006)	33.7 (2010)	8.6 (1993)	1.4 (2009)	6.8 (2009)
Pakistan	64.7 (1991)	21.0 (2008)	30.6 (1999)	22.3 (2006)	23.2 (1991)	3.5 (2008)	9.6 (2008)
Tajikistan	49.4 (1999)	6.6 (2009)	96.0 (1999)	46.7 (2009)	15.4 (1999)	1.2 (2009)	8.3 (2009)
Turkmenistan	63.5 (1993)	24.8 (1998)	...	29.9 (1998)	25.8 (1993)	7.0 (1998)	6.1 (1998)
Uzbekistan	...	...	27.5 (2001)	25.8 (2005)	...	...	7.1 (2003)
<b>East Asia</b>							
China, People's Rep. of	60.2 <sup>a</sup> (1990)	13.1 <sup>a</sup> (2008)	6.0 (1996)	3.8 <sup>b</sup> (2009)	20.7 <sup>a</sup> (1990)	3.2 <sup>a</sup> (2008)	5.0 <sup>a</sup> (2005)
Hong Kong, China	...	...	...	...	...	...	5.3 (1996)
Korea, Rep. of	...	...	...	5.0 (2004)	...	...	7.9 (1998)
Mongolia	...	...	36.3 (1995)	38.7 (2009)	...	...	7.1 (2008)
Taipei, China	...	...	0.6 <sup>c</sup> (1993)	1.2 <sup>c</sup> (2010)	...	...	...
<b>South Asia</b>							
Bangladesh	70.2 (1992)	43.3 (2010)	56.6 (1992)	31.5 (2010)	23.8 (1992)	11.2 (2010)	8.9 (2010)
Bhutan	26.2 (2003)	10.2 (2007)	31.7 <sup>c</sup> (2003)	23.2 (2007)	7.0 (2003)	1.8 (2007)	6.6 (2007)
India	49.4 <sup>a</sup> (1994)	32.7 <sup>a</sup> (2010)	45.3 <sup>d</sup> (1994)	29.8 <sup>d</sup> (2010)	13.6 <sup>a</sup> (1994)	7.5 <sup>a</sup> (2010)	8.6 <sup>a</sup> (2005)
Maldives	25.6 (1998)	1.5 (2004)	21.0 (2004)	15.0 <sup>e</sup> (2010)	13.1 (1998)	0.1 (2004)	6.5 (2004)
Nepal	68.0 (1996)	24.8 (2010)	41.8 (1996)	25.2 (2011)	25.6 (1996)	5.6 (2010)	8.3 (2010)
Sri Lanka	15.0 (1991)	7.0 (2007)	26.1 (1991)	8.9 (2010)	2.7 (1991)	1.0 (2007)	6.9 (2007)
<b>Southeast Asia</b>							
Brunei Darussalam <sup>f</sup>	...	...	...	...	...	...	...
Cambodia	44.5 (1994)	22.8 (2008)	47.0 (1994)	30.1 (2007)	12.0 (1994)	4.9 (2008)	7.5 (2008)
Indonesia	54.3 <sup>a</sup> (1990)	18.1 <sup>a</sup> (2010)	17.6 (1996)	12.5 (2011)	15.6 <sup>a</sup> (1990)	3.3 <sup>a</sup> (2010)	7.6 <sup>a</sup> (2009)
Lao PDR	55.7 (1992)	33.9 (2008)	45.0 (1992)	27.6 (2008)	16.2 (1992)	9.0 (2008)	7.6 (2008)
Malaysia	1.6 (1992)	0.0 (2009)	5.7 (2004)	3.8 (2009)	0.1 (1992)	0.0 (2009)	4.5 (2009)
Myanmar	...	...	...	25.6 (2010)	...	...	...
Philippines	30.7 (1991)	18.4 (2009)	33.1 (1991)	26.5 (2009)	8.6 (1991)	3.7 (2009)	6.0 (2009)
Singapore	...	...	...	...	...	...	5.0 (1998)
Thailand	11.6 (1990)	0.4 (2009)	33.7 (1990)	7.8 (2010)	2.4 (1990)	0.1 (2009)	6.7 (2009)
Viet Nam	63.7 (1993)	16.9 (2008)	58.1 (1993)	14.5 (2008)	23.6 (1993)	3.8 (2008)	7.4 (2008)
<b>The Pacific</b>							
Cook Islands	...	...	...	28.4 <sup>g</sup> (2006)	...	...	...
Fiji	29.2 (2003)	5.9 (2009)	35.0 <sup>g</sup> (2003)	31.0 <sup>g</sup> (2009)	11.3 (2003)	1.1 (2009)	6.2 (2009)
Kiribati	...	...	...	21.8 <sup>g</sup> (2006)	...	...	...
Marshall Islands	...	...	...	52.7 <sup>g</sup> (2002)	...	...	...
Micronesia, Fed. States of	...	31.2 <sup>h</sup> (2000)	27.9 <sup>g</sup> (1998)	31.4 <sup>g</sup> (2005)	...	16.3 <sup>h</sup> (2000)	1.6 <sup>h</sup> (2000)
Nauru	...	...	...	25.1 <sup>g</sup> (2006)	...	...	...
Palau	...	...	...	24.9 <sup>g</sup> (2006)	...	...	...
Papua New Guinea	...	35.8 (1996)	30.0 <sup>g</sup> (1990)	28.0 <sup>g</sup> (2009)	...	12.3 (1996)	4.5 (1996)
Samoa	...	...	22.9 <sup>g</sup> (2002)	26.9 <sup>g</sup> (2008)	...	...	...
Solomon Islands	...	...	...	22.7 <sup>g</sup> (2006)	...	...	...
Timor-Leste	52.9 (2001)	37.4 (2007)	39.7 <sup>g</sup> (2001)	41.1 <sup>g</sup> (2009)	19.1 (2001)	8.9 (2007)	9.0 (2007)
Tonga	...	...	16.2 <sup>g</sup> (2001)	22.5 <sup>g</sup> (2009)	...	...	...
Tuvalu	...	...	23.2 <sup>g</sup> (1994)	26.3 <sup>g</sup> (2010)	...	...	...
Vanuatu	...	...	13.0 <sup>g</sup> (2006)	12.7 <sup>g</sup> (2010)	...	...	...
<b>Developed Member Economies</b>							
Australia	...	...	...	...	...	...	5.9 (1994)
Japan	...	...	...	...	...	...	10.6 (1993)
New Zealand	...	...	...	...	...	...	6.5 (1997)

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, PPP = purchasing power parity.

- a Weighted average of urban and rural estimates.  
b Refers to rural areas only.  
c Defined as percent of low-income population in total population.  
d Based on the new methodology recommended by the Tendulkar Committee.  
e Based on half the median of Atoll expenditure per person per day (Rufiyah 22).  
f Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.  
g Refers to percentage of population below the basic needs poverty line.  
h Refers to urban areas only.

Sources: Millennium Indicators Database Online (UNSD 2011), PovcalNet Database (World Bank 2012), Pacific National Minimum Development Indicator Database (PRISM 2012), country sources.

## Goal 1 Targets and Indicators

Table 1.2 **Target 1.B: Achieve full and productive employment and decent work for all, including women and young people**

	1.4 Growth Rate of GDP per Person Employed (%, at constant 1990 \$ PPP)		1.5 Employment-to-Population Ratio (%, aged 15 years and over)		1.6 Proportion of Employed People Living below \$1.25 per Day (PPP) (%)		1.7 Proportion of Own-Account and Contributing Family Workers in Total Employment (%)	
	1990	2010	1991	2011	Earliest Year	Latest Year	Earliest Year	Latest Year
<b>Developing Member Economies</b>								
<b>Central and West Asia</b>								
Afghanistan	...	...	45.8	45.1	...	38.0 (2005)	...	...
Armenia	-5.1	2.9	43.8	40.9	9.7 (1996)	0.7 (2008)	35.7 (2007)	37.8 (2008)
Azerbaijan	-12.5	2.3	56.4	60.7	12.5 (1995)	0.7 (2008)	62.4 (2003)	54.7 (2008)
Georgia	-15.3	5.1	54.9	55.0	11.4 (2002)	10.7 (2008)	53.9 (1998)	63.2 (2008)
Kazakhstan	-0.7	4.1	63.5	67.7	2.7 (1993)	– (2007)	40.0 (2001)	31.9 (2008)
Kyrgyz Republic	4.3	-5.5	59.4	60.9	14.8 (1993)	1.5 (2007)	51.5 (2002)	47.3 (2006)
Pakistan	0.3	1.9	47.4	50.7	57.4 (1991)	19.2 (2006)	64.9 (1995)	63.1 (2008)
Tajikistan	-7.4	2.7	57.9	58.6	39.6 (1999)	19.5 (2004)	...	...
Turkmenistan	3.0	6.5	52.5	54.5	47.9 (1993)	19.0 (1998)	...	...
Uzbekistan	-4.8	5.4	51.8	54.4	32.4 (2002)	35.3 (2003)	...	...
<b>East Asia</b>								
China, People's Rep. of	1.5	9.1	75.1	70.9	...	...	...	...
Hong Kong, China	3.7	5.1	62.6	57.0	...	...	5.5 (1993)	7.4 (2009)
Korea, Rep. of	6.3	4.9	58.9	58.1	...	...	30.0 (2000)	23.5 (2009)
Mongolia	...	...	50.4	57.6	14.3 (1995)	11.3 (2002)	56.6 (2000)	57.5 (2009)
Taipei, China	5.1	8.6	58.2	55.4	...	...	27.6 (1990)	18.7 (2009)
<b>South Asia</b>								
Bangladesh	4.1	3.4	72.7	67.6	55.9 (1992)	50.1 (2005)	69.4 (1996)	85.0 (2005)
Bhutan	...	...	63.0	69.1	...	26.9 (2003)	68.0 (2006)	74.2 (2009)
India	2.7	5.6	58.5	53.6	49.1 (1994)	39.2 (2005)	...	82.8 (2005)
Maldives	...	...	45.2	57.7	26.1 (1998)	1.3 (2004)	46.3 (1990)	29.6 (2006)
Nepal	...	...	83.5	82.1	63.9 (1996)	50.4 (2003)	...	71.6 (2001)
Sri Lanka	4.5	5.9	48.5	52.7	13.2 (1991)	5.8 (2007)	43.0 (1990)	39.8 (2009)
<b>Southeast Asia</b>								
Brunei Darussalam <sup>a</sup>	...	...	61.6	62.9	...	...	...	4.1 (1991)
Cambodia	-2.2	2.1	79.7	81.2	50.5 (1994)	25.1 (2007)	84.5 (2000)	82.5 (2008)
Indonesia	5.4	3.9	63.1	62.7	52.6 (1993)	19.8 (2005)	62.8 (1997)	63.7 (2009)
Lao PDR	...	...	79.7	76.9	57.1 (1992)	31.5 (2008)	90.1 (1995)	88.0 (2005)
Malaysia	4.7	4.6	60.1	58.6	1.4 (1992)	– (2009)	28.8 (1991)	21.5 (2009)
Myanmar	...	...	72.8	75.8	...	31.1 (2005)	...	...
Philippines	1.4	4.6	59.6	59.9	26.8 (1991)	19.0 (2006)	44.9 (1998)	43.5 (2008)
Singapore	-1.4	13.6	64.4	63.6	...	...	8.1 (1991)	9.8 (2009)
Thailand	13.6	5.7	77.5	71.2	4.4 (1992)	– (2004)	70.3 (1990)	52.5 (2009)
Viet Nam	3.3	4.3	77.9	75.3	66.7 (1993)	12.0 (2008)	82.1 (1996)	73.9 (2004)
<b>The Pacific</b>								
Cook Islands	...	...	...	...	...	...	...	...
Fiji	...	...	53.6	56.7	...	18.5 (2005)	...	39.0 (2005)
Kiribati	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	26.7 (1999)
Micronesia, Fed. States of	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	70.0	70.7	...	34.0 (1996)	...	...
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	...	...	62.6	64.5	...	21.5 (2005)	...	...
Timor-Leste	...	...	57.7	54.3	47.0 (2001)	32.6 (2007)	...	...
Tonga	...	...	...	...	...	...	57.0 (1996)	55.2 (2003)
Tuvalu	...	...	...	...	...	...	...	2.0 (2002)
Vanuatu	...	...	...	...	...	...	...	70.0 (2009)
<b>Developed Member Economies</b>								
Australia	2.3	1.0	57.1	62.2	...	...	10.3 (1990)	9.0 (2009)
Japan	3.4	3.9	62.5	57.4	...	...	19.2 (1990)	10.1 (2009)
New Zealand	-0.4	1.6	56.7	63.3	...	...	12.7 (1991)	10.9 (2009)

... = Data not available at cutoff date, – = Magnitude equals zero, PPP = purchasing power parity, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Key Indicators of the Labour Market, 7th edition (ILO 2012).

## Goal 1 Targets and Indicators

Table 1.3 Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

	1.8 Prevalence of Underweight Children under 5 Years of Age (%)		1.9 Proportion of Population below Minimum Level of Dietary Energy Consumption (%)		
	Earliest Year	Latest Year	1990–1992 <sup>a</sup>	2000–2002	2006–2008
	Total	Total			
<b>Developing Member Economies</b>					
<b>Central and West Asia</b>					
Afghanistan	44.9 (1997)	32.9 (2004)	...	...	...
Armenia	2.7 (1998)	4.7 (2010)	45	28	21
Azerbaijan	8.8 (1996)	8.4 (2006)	27	11	<5
Georgia	2.7 (1999)	1.1 (2009)	58	12	6
Kazakhstan	6.7 (1995)	4.9 (2006)	<5	8	<5
Kyrgyz Republic	8.2 (1997)	2.7 (2006)	17	17	11
Pakistan	39.0 (1991)	31.3 (2001)	25	24	25
Tajikistan	14.9 (2005)	15.0 (2007)	34	46	26
Turkmenistan	10.5 (2000)	8.2 (2005)	9	9	7
Uzbekistan	15.3 (1996)	4.4 (2006)	5	19	11
<b>East Asia</b>					
China, People's Rep. of	12.6 (1990)	3.4 (2010)	18 <sup>b</sup>	10 <sup>b</sup>	10 <sup>b</sup>
Hong Kong, China	...	...	...	...	...
Korea, Rep. of	...	...	<5	<5	<5
Mongolia	10.8 (1992)	5.3 (2005)	28	27	27
Taipei, China	...	...	...	...	...
<b>South Asia</b>					
Bangladesh	61.5 (1990)	41.3 (2007)	38	30	26
Bhutan	14.1 (1999)	12.7 (2010)	...	...	...
India	59.5 (1990)	43.5 (2006)	20	20	19
Maldives	32.5 (1994)	17.8 (2009)	9	8	10
Nepal	44.1 (1995)	38.8 (2006)	21	18	17
Sri Lanka	33.8 (1993)	21.6 (2009)	28	20	20
<b>Southeast Asia</b>					
Brunei Darussalam <sup>c</sup>	...	...	<5	<5	<5
Cambodia	42.6 (1996)	29.0 (2011)	38	29	25
Indonesia	29.8 (1992)	19.6 (2007)	16	15	13
Lao PDR	39.8 (1993)	31.6 (2006)	31	26	22
Malaysia	22.1 (1990)	12.9 (2006)	<5	<5	<5
Myanmar	28.8 (1990)	22.6 (2010)	...	...	...
Philippines	29.9 (1990)	20.7 (2008)	24	18	13
Singapore	...	3.3 (2000)	...	...	...
Thailand	16.3 (1993)	7.0 (2006)	26	18	16
Viet Nam	36.9 (1993)	20.2 (2008)	31	17	11
<b>The Pacific</b>					
Cook Islands	...	...	...	...	...
Fiji	6.9 (1993)	7.0 (2008)	8	<5	<5
Kiribati	...	23.1 (2009)	8	5	5
Marshall Islands	19.0 (1991)	13.0 (2007)	...	...	...
Micronesia, Fed. States of	13.3 (1989)	15.0 (2005)	...	...	...
Nauru	...	5.6 (2007)	...	...	...
Palau	...	2.2 (2010)	...	...	...
Papua New Guinea	...	23.0 (2009)	...	...	...
Samoa	6.6 (1990)	1.9 (1999)	9	<5	<5
Solomon Islands	...	14.2 (2007)	21	12	11
Timor-Leste	40.6 (2002)	45.3 (2010)	39	28	31
Tonga	2.0 1999	...	...	<5 <sup>d</sup>	...
Tuvalu	...	1.9 (2007)	...	...	...
Vanuatu	10.6 (1996)	15.9 (2007)	10	8	<5
<b>Developed Member Economies</b>					
Australia	...	...	<5	<5	<5
Japan	...	...	<5	<5	<5
New Zealand	...	...	<5	<5	<5

... = Data not available at cutoff date, < = Less than.

a For Central and West Asia except for Pakistan, data refer to the period 1993–1995.

b Includes Hong Kong, China; Macao, China; and Taipei, China.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

d Data for 2004.

Sources: Global Health Observatory Data Repository (WHO 2012); The State of the World's Children (UNICEF 2012); Pacific National Minimum Development Indicator Database (PRISM 2012); Food Security Statistics (FAO 2012); Tonga Department of Statistics.

## Goal 2: Achieve Universal Primary Education

### Snapshots

- Most economies in the region are on their way to achieving primary school net enrollment targets, with 30 of 42 reporting economies achieving net enrollment rates of 95% or higher.
- However, many children are not finishing primary school, as shown by low primary school survival rates in most of the region's economies. In 2009 (or the nearest years), 26 developing economies of the region's 40, or 65%, were not able to reach the cutoff rate of a 95% expected cohort survival rate (or 95% of primary school entrants reaching the last year of primary schooling).
- Most of the region's developing economies had high youth literacy rates in 2010 (or the latest reported years); only about one-fourth of the 44 reporting economies posted rates below 95%.

### Introduction

The target for Goal 2 is to *ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling*. Primary education usually starts at 5–6 years and continues through to 11–12 years, although age requirements differ among countries.

To achieve this target, first, countries need to ensure that primary school-age children are enrolled in school, and that they complete the full primary years. Although the target is 100% enrollment and completion, a cutoff rate of 95% is set to track the progress toward achieving the target.

Youth literacy, or the literacy among 15–24 year-olds, is a good indicator of how effective primary education has been. The youth literacy rates show how well the basic reading and writing skills learned in primary school have been retained when the young people either join the workforce or enter higher technical or university education.

The reference year used in total net enrollment ratios in primary education is 2010, although the latest available data may be from 2000 to 2011. The reference year for the proportion of pupils starting the 1st grade that is expected to reach the last grade of primary is 2009, with the latest available data ranging from 2003 to 2011. For literacy rates, the reference year is 2010 but available data for the latest years range from 2003 to 2011. The data used in the analysis pertain only to developing Asian economies.

### Key Trends

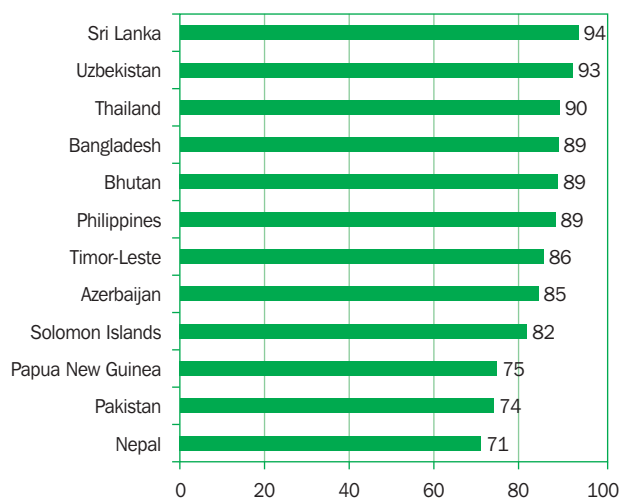
**Most economies in the region are on their way to achieving primary school net enrollment targets.** Of the 42 economies in the region for which data are available, only 12 had yet to achieve at least the cutoff rate of 95% for total net enrollment in primary schools (Table 2.1). Figure 2.1 shows the 12 developing economies with net enrollment rates falling below this cutoff. Among these, the lowest were Nepal, Pakistan, and Papua New Guinea (PNG), which were below 75%; Nepal was the lowest, at 71% in 2000. With only 3 years to 2015, some of the 12 economies are unlikely to achieve the target of 100% primary net enrollment.

In net enrollment rate gains, the region is making considerable progress. One good indication of moving toward the goal is that, from 1999 to 2010, more than 80% of the 42 economies maintained their rates

or recorded gains. Among the 33 economies with improved rates, 7 still had net enrollment rates below the 95% cutoff. The improved rates, however, show the continuing progress toward achieving at least the cutoff rate of 95%. Most notable were two economies that posted gains of more than 30 percentage points: Bhutan achieved this in 12 years and Nauru in 9 years.

Based on data from the United Nations (UNSD, 2012d), the average net enrollment rate in East Asia (96.6%) is comparable to the average of developed countries in the world, at 97.1%. The other subregions in Asia and the Pacific have net enrollment averages ranging from 91.5% to 95.4%, which are at par with other regions in the world and which are significantly higher than the Sub-Saharan Africa (76.2%).

Figure 2.1 Total Net Enrolment Rate in Primary Education Below 95%, Latest Year (%)



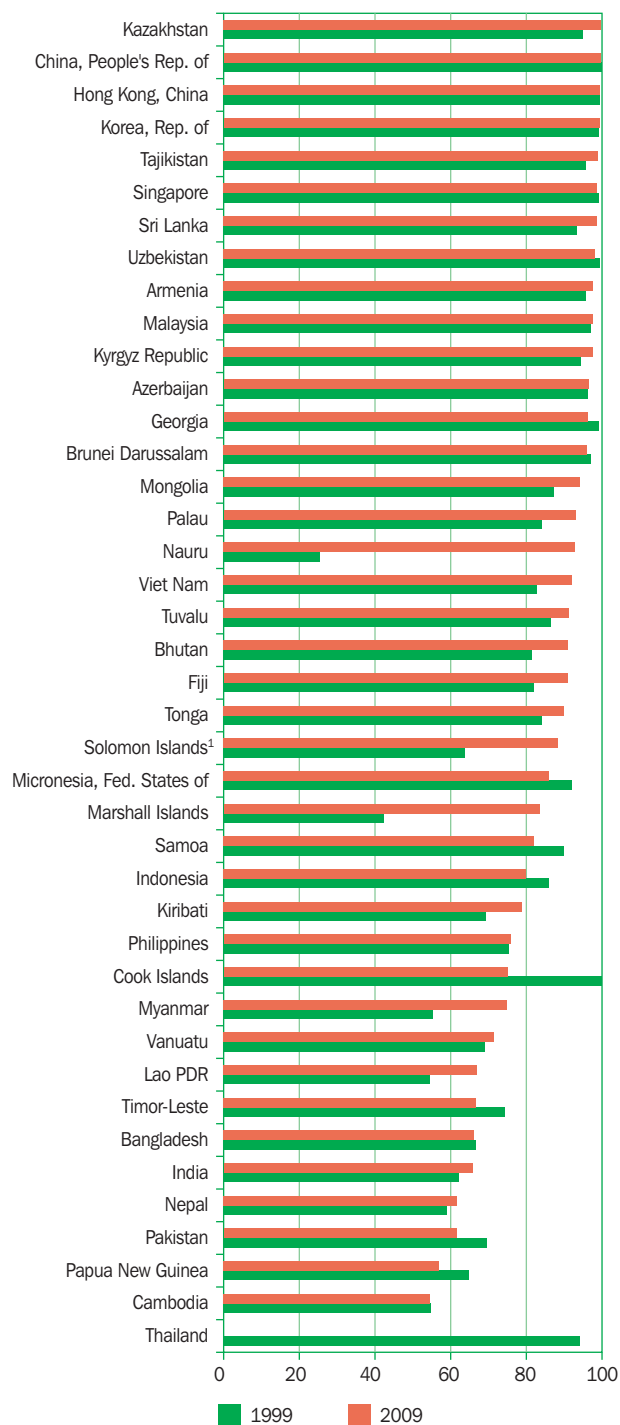
Source: Table 2.1.

However, 8 developing economies posted small declining net enrollment rates from 1999 to 2009, although a few managed to maintain rates above the cutoff. Sri Lanka's net enrollment rate fell by 6 percentage points, and Azerbaijan and Thailand each posted declines of 4 percentage points from their previous rates.

The largest disparities in primary school net enrollment rates between girls and boys were recorded in Nepal and Pakistan, where net enrollment rates among girls were just over 60%. Differences in the net enrollment rates between girls and boys were about 14 percentage points in Nepal and 15 percentage points in Pakistan. All the other developing economies showed no considerable differences in the net enrollment rates of girls and boys. In 12 economies, primary school net enrollment among girls was even higher than that of boys. This implies that, in general, girls may no longer be disadvantaged in terms of access to basic education, although gender disparities may still exist in total net enrollment rates in some parts of the region.

**Most regional economies showed low primary school survival rates—meaning, many children are unable to finish primary schooling.** Providing children access to basic education and having them enrolled in primary school is one thing; keeping them in school and making sure they finish up to the last grade is another. Recent trends in the proportion of pupils starting the 1st grade who are expected to reach the last grade of primary school (that is, the “expected cohort survival rate”) show that most of the region's developing economies need to exert more effort to keep children in school and to provide them support to finish at least the primary level.

Figure 2.2 Percentage of Pupils Starting Grade 1 Who Reach the Last Grade of Primary, 1999 and 2009 or Nearest Year



<sup>1</sup> Solomon Islands has earliest data for 1991.

Source: Table 2.1.

In 2009, 65% of the region's developing economies (26 of 40) were not able to reach the cutoff of a 95% expected cohort survival rate (Figure 2.2). Cambodia, Nepal, Pakistan, and PNG, were among the economies that had the lowest primary education completion rates

(Regional Table 1.18). Cambodia had the lowest expected cohort survival rate, at just 54%, which means that only about 5 of 10 school children in Cambodia who enter Grade 1 are expected to reach the last primary grade.

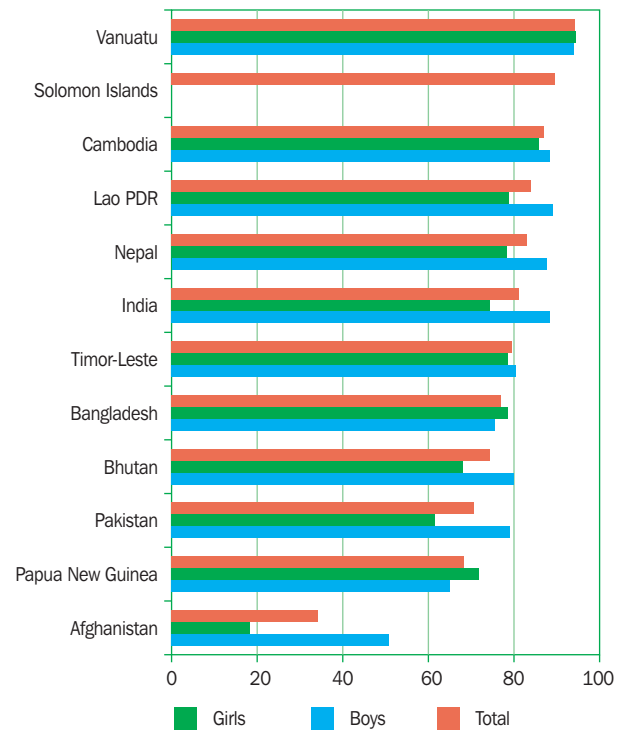
An opposite trend is observed in the number of economies reporting gains in the expected survival rates to the last grade of primary. Of the 40 economies for which data are available, 26 reported improved rates in 1999 to 2009 (the earliest data for the Solomon Islands are for 1991). The most significant improvement was recorded in Nauru, which more than tripled its expected cohort survival rate during 2000–2011. This improvement may be linked to the improved net enrollment, which jumped from 60% in 2002 to 95% in 2011. Conversely, the largest reduction in the expected survival rate was in the Cook Islands, which dropped from almost 100% in 2001 to 75% in 2010.

The latest data show an increased number of economies where girls are more likely to finish their last grade in primary school than boys. These include Bangladesh, Kiribati, and the Philippines, where expected survival rates to the last grade of primary among girls are higher by 8 or more percentage points compared to the rates among boys. This could be because families under difficult economic situations may oblige the sons to find work, thus forcing them to drop out of school.

Looking at how the subregions in Asia and the Pacific compare with other regions in the world, data on gross intake ratio at the last grade of primary, which corresponds to the total number of new entrants in the last grade of primary education, regardless of age, expressed as a percentage of the population of the theoretical entrance age to the last grade, was used. It is used as substitute indicator because there are no regional averages for the proportion of pupils starting the 1st grade who reach the last grade of primary (UNSD, 2012d). Data show that the progress made by East Asia, Southeast Asia, and Central Asia (97.3%–98.7%) is at par with the developed regions (100.0%). South and West Asia, however, registered average rates below 90%.

**Most of the region's developing economies have high youth literacy rates.** In 2010, only about one-fourth of the 44 reporting economies posted rates below 95% for youth literacy—that is, literacy rates among 15–24 year-olds (Figure 2.3). Afghanistan, Bhutan, Pakistan, and PNG had youth literacy rates below 75%. Literacy rates among people 15 and over in the last three countries (no data are available for Afghanistan) were only about 60% or lower in 2009 (see Regional Table 1.19).

Figure 2.3 Literacy Rate Below 95% Among 15–24 Year-Olds by Gender, Latest Year (%)



Source: Table 2.1.

Afghanistan, which has been in a state of war for many years, had a very low youth literacy rate of only 34% in 2004, and the literacy rate among 15–24 year-old girls was only 18%. Youth literacy rates are higher among males than females in Bhutan, India, the Lao PDR, Nepal, and Pakistan; however, in most developing economies, the literacy rates among 15–24 year-old girls and boys are similar.

Youth literacy is a good indicator of how effective the school systems were in the past. Results of earlier improvements in the education systems can manifest in the capabilities developed by the current youth. And youth literacy can be an indication of how qualified the youth are for a transition from school to the labor market, that is, whether they are adequately equipped to perform well in the workplace.

In summary, economies with a considerable need to improve their education systems, particularly in primary education, are Nepal, Pakistan, and PNG, which recorded the lowest net enrollment rates, at 71%–75%, and low expected survival rates in primary education, at about 57%–62%. Although Cambodia has reached the 95% cutoff rate for primary school enrollment, it posted the

lowest expected survival rate of 54% in 2007 and thus needs to improve its efforts toward completion of primary education. The lowest youth literacy rates, all below 75%, are in Afghanistan, Bhutan, Pakistan, and PNG.

Most of the region's economies decreased their gender differences in primary school net enrollment and expected survival, and youth literacy. However, the disparities clearly persist in some economies. Nepal and Pakistan posted the largest gender disparity in favor of boys in primary school net enrollment, and had wide gender disparities in youth literacy. Afghanistan, Bhutan, India, and the Lao PDR also had notably higher male than female youth literacy rates. But 12 economies in the region had higher net enrollment of girls in primary school, and the number of economies where girls are more likely to finish their last grade in primary school than boys increased, most notably in Bangladesh, Kiribati, and the Philippines.

## Data Issues and Comparability

Most of the statistics for Goal 2 are taken from United Nations Educational, Scientific and Cultural Organization (UNESCO) sources, with countries trying to adhere to UNESCO classifications and definitions (e.g., the number of primary school grades). Statistics on school enrollment are typically obtained from ministries of education and literacy rates are from household surveys or censuses.

Enrollment statistics are likely to be accurate in many countries, but may be overreported in others. These statistics may also not reflect actual attendance or dropout rates during the year.

The percentages of children starting first grade who will continue to the last grade of primary school are essentially forecasts based on recent experience with dropout rates.

Literacy rates are usually based on oral responses from households about their literacy status.

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## Goal 2 Target and Indicators

Table 2.1 **Target 2.A: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling**

Regional Member	2.1 Net Enrollment Ratio in Primary Education (%)					
	Total		Girls <sup>a</sup>		Boys <sup>a</sup>	
	1999	2010	1999	2010	1999	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	...	...	...
Armenia	93.2 (2001)	96.2 (2007)	93.6	97.6	92.7	95.0
Azerbaijan	88.7	84.7	89.3	84.1	88.1	85.3
Georgia	90.2 (2004)	100.0 (2009)	88.3	100.0	92.1	100.0
Kazakhstan	94.0 (2000)	99.5 (2011)	95.3	99.7	92.8	99.4
Kyrgyz Republic	92.9	95.3	92.8	95.1	93.1	95.5
Pakistan	57.9 (2001)	74.1	46.3	66.5	68.9	81.3
Tajikistan	96.1 (2000)	97.8	92.8	96.0	99.3	99.5
Turkmenistan	...	...	...	...	...	...
Uzbekistan	93.4 (2007)	92.8 (2011)	92.2	91.5	94.5	94.1
<b>East Asia</b>						
China, People's Rep. of	99.1	99.3 (2006)	...	...	...	...
Hong Kong, China	93.0 (2001)	98.5	92.6	...	93.4	...
Korea, Rep. of	99.3	98.9	100.0	98.4	98.7	99.3
Mongolia	89.6	99.1	90.5	98.5	88.7	99.6
Taipei, China	97.8	97.9 (2011)	97.8	97.8	97.8	98.0
<b>South Asia</b>						
Bangladesh	86.4	89.4 (2009)	86.5	93.1	86.3	85.9
Bhutan	55.8	89.3 (2011)	52.3	90.9	59.4	87.9
India	83.5 (2000)	98.2 (2008)	75.9	97.6	90.4	98.6
Maldives	97.8	96.8 (2011)	98.0	96.8	97.5	96.7
Nepal	65.1	71.1 (2000)	57.0	64.0	72.7	77.9
Sri Lanka	99.8 (2001)	94.1	...	94.4	...	93.9
<b>Southeast Asia</b>						
Brunei Darussalam <sup>b</sup>	96.9 (2005)	96.9 (2009)	97.6	97.7	96.2	96.2
Cambodia	86.9	95.9	81.4	95.4	92.3	96.4
Indonesia	94.0 (2000)	99.1	92.3	...	95.6	...
Lao PDR	77.2	96.8	73.8	95.4	80.5	98.1
Malaysia	95.1	95.9 (2005)	94.4	95.9	95.8	95.9
Myanmar	91.8	99.6 (2006)	91.5	100.0	92.1	99.3
Philippines	89.8	88.7 (2009)	90.1	89.5	89.5	87.9
Singapore	...	...	...	...	...	...
Thailand	93.6 (2006)	89.7 (2009)	92.9	89.4	94.3	90.0
Viet Nam	96.5	98.1	...	...	...	...
<b>The Pacific</b>						
Cook Islands	86.3	98.4	84.5	99.3	87.9	97.6
Fiji	94.3	99.1 (2009)	94.6	99.3	94.0	98.8
Kiribati	99.1	99.4 (2002)	100.0	...	98.4	...
Marshall Islands	98.1 (2002)	99.4 (2011)	97.5	...	98.7	...
Micronesia, Fed. States of	92.3 (2000)	95.8 (2011)	...	...	...	...
Nauru	60.3 (2002)	95.0 (2011)	...	...	...	...
Palau	96.8	96.4 (2000)	93.9	94.5	99.4	98.3
Papua New Guinea	53.0 (2007)	74.9	...	...	...	...
Samoa	94.1	95.1	93.8	97.1	94.4	93.2
Solomon Islands	77.0 (2005)	82.0 (2007)	76.1	81.1	78.0	82.9
Timor-Leste	66.9 (2005)	85.9	65.4	85.6	68.3	86.2
Tonga	91.5	98.9 (2006)	88.7	...	94.0	...
Tuvalu	96.9 (2002)	98.1 (2007)	...	...	...	...
Vanuatu	97.7	98.9 (2005)	97.0	...	98.3	...
<b>Developed Member Economies</b>						
Australia	94.5	97.2	94.9	97.5	94.2	96.9
Japan	100.0	100.0	99.9	100.0	100.0	100.0
New Zealand	99.5	99.5	99.5	99.6	99.5	99.3

continued



## Goal 2 Target and Indicators

Table 2.1 **Target 2.A: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling** (continued)

Regional Member	2.2 Proportion of Pupils Starting Grade 1 Who Reach the Last Grade of Primary (%)					
	Total		Girls <sup>a</sup>		Boys <sup>a</sup>	
	1999	2009	1999	2009	1999	2009
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	...	...	...
Armenia	95.8 (2002)	97.7 (2006)	95.6	97.4	95.9	98.0
Azerbaijan	96.3	96.4	97.4	97.5	95.3	95.4
Georgia	99.1	96.2	99.8	98.6	98.5	94.1
Kazakhstan	95.0 (2000)	99.8 (2010)	92.4	99.9	97.4	99.8
Kyrgyz Republic	94.5	97.6	93.9	97.3	95.1	98.0
Pakistan	69.7 (2004)	61.5	72.4	58.9	67.8	63.7
Tajikistan	95.8	98.9	92.7	99.2	98.7	98.6
Turkmenistan	...	...	...	...	...	...
Uzbekistan	99.5	98.1 (2010)	99.4	98.3	99.7	97.8
<b>East Asia</b>						
China, People's Rep. of	100.0 (2000)	99.6 (2007)	100.0	99.3	100.0	99.8
Hong Kong, China	99.3 (2002)	99.5 (2007)	100.0	99.5	98.7	99.5
Korea, Rep. of	99.2	99.3	99.1	99.3	99.4	99.2
Mongolia	87.2	94.1	89.7	95.1	84.7	93.1
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	66.6 (2008)	66.2	66.1	70.6	67.1	61.9
Bhutan	81.5	91.0 (2010)	85.8	93.4	78.0	88.7
India	62.0	65.8 (2005)	60.4	65.3	63.3	66.2
Maldives	...	...	...	...	...	...
Nepal	59.0	61.7 (2007)	62.5	63.6	56.6	59.7
Sri Lanka	93.4 (2005)	98.6 (2006)	93.6	99.0	93.2	98.3
<b>Southeast Asia</b>						
Brunei Darussalam <sup>b</sup>	97.1 (2003)	96.1	95.1	96.3	99.0	96.0
Cambodia	54.7 (2000)	54.5 (2007)	53.1	57.3	56.1	52.0
Indonesia	85.9 (2001)	80.0 (2007)	88.7	83.0	83.3	77.5
Lao PDR	54.6	67.0 (2007)	53.8	67.7	55.3	66.0
Malaysia	97.1 (2002)	97.7 (2008)	96.8	97.9	97.5	97.4
Myanmar	55.2 (2000)	74.8	55.2	77.5	55.3	72.2
Philippines	75.3 (2001)	75.8 (2008)	79.8	80.0	71.1	72.0
Singapore	99.1 (2007)	98.7 (2008)	...	98.8	...	98.5
Thailand	94.1 (1998)	...	96.0	...	92.3	...
Viet Nam	82.8	92.1 (2005)	86.2	...	79.9	...
<b>The Pacific</b>						
Cook Islands	99.9 (2001)	75.0 (2010)	...	...	...	...
Fiji	82.1	90.9 (2008)	82.0	88.3	82.2	93.4
Kiribati	69.4 (2001)	78.9 (2003)	67.2	86.1	71.7	72.7
Marshall Islands	42.4 (2002)	83.5 (2008)	61.2	79.5	29.5	87.3
Micronesia, Fed. States of	92.0 <sup>c</sup> (2000)	86.0 <sup>c</sup>	...	...	...	...
Nauru	25.4 (2001)	92.8 (2011)	30.1	...	21.5	...
Palau	84.2 (1998)	93.0 (2005)	75.8	...	92.2	...
Papua New Guinea	64.8	56.9	62.0	...	67.3	...
Samoa	90.0	82.0 (2011)	94.1	...	90.9	...
Solomon Islands	63.7 (1991)	88.3	83.8	...	47.5	...
Timor-Leste	74.2 (2008)	66.6	77.9	70.3	70.8	63.3
Tonga	84.0 (1996)	90.0 (2007)	...	...	...	...
Tuvalu	86.5 (2002)	91.2 (2004)	...	...	...	...
Vanuatu	68.9	71.5 (2008)	71.0	69.3	67.0	73.5
<b>Developed Member Economies</b>						
Australia	98.7 (2002)	85.8 (2003)	99.5	87.4	97.9	84.3
Japan	100.0 (2008)	100.0	100.0	99.9	100.0	100.0
New Zealand	...	...	...	...	...	...

continued

## Goal 2 Target and Indicators

Table 2.1 **Target 2.A: Ensure that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling** (continued)

Regional Member	2.3 Literacy Rate of 15–24 Year-Olds (%)					
	Total		Girls <sup>a</sup>		Boys <sup>a</sup>	
	1999	2010	1999	2010	1999	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	34.3 <sup>d</sup> (2004)	...	18.4 <sup>d</sup>	...	50.8 <sup>d</sup>
Armenia	99.8 (2001)	99.8	99.9	99.8	99.8	99.7
Azerbaijan	99.9	100.0 (2009)	99.9	99.9	99.9	100.0
Georgia	99.8 (2002)	99.8	99.9	99.9	99.8	99.8
Kazakhstan	99.8	99.8	99.9	99.9	99.8	99.8
Kyrgyz Republic	99.7	99.8 (2009)	99.7	99.8	99.7	99.7
Pakistan	55.3 (1998)	70.7 (2009)	43.1	61.5	67.1	79.1
Tajikistan	99.8 (2000)	99.9	99.8	99.9	99.8	99.9
Turkmenistan	99.8 (1995)	99.8	99.8	99.9	99.8	99.8
Uzbekistan	99.9 (2000)	99.9	99.9	100.0	99.9	99.9
<b>East Asia</b>						
China, People's Rep. of	98.9 (2000)	99.4	98.5	99.3	99.2	99.5
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	99.8	99.8 (2003)	99.8	99.8	99.8	99.8
Mongolia	97.7 (2000)	95.8	98.4	97.4	97.0	94.4
Taipei, China	95.3	98.0	...	...	...	...
<b>South Asia</b>						
Bangladesh	63.6 (2001)	77.0	60.3	78.5	67.2	75.5
Bhutan	...	74.4 (2005)	...	68.0	...	80.0
India	76.4 (2001)	81.1 (2006)	67.7	74.4	84.2	88.4
Maldives	98.2 (2000)	99.3 (2006)	98.3	99.4	98.0	99.2
Nepal	70.1 (2001)	83.1	60.1	78.4	80.6	87.6
Sri Lanka	95.6 (2001)	98.2	96.1	98.6	95.1	97.7
<b>Southeast Asia</b>						
Brunei Darussalam <sup>b</sup>	98.9 (2001)	99.7	98.9	99.7	98.9	99.8
Cambodia	76.3 (1998)	87.1 (2009)	71.1	85.9	81.8	88.4
Indonesia	98.7 (2004)	99.5 (2009)	98.5	99.4	98.9	99.6
Lao PDR	80.6 (2000)	83.9 (2005)	73.6	78.7	88.1	89.2
Malaysia	97.2 (2000)	98.4	97.3	98.5	97.2	98.4
Myanmar	94.6 (2000)	95.8	93.5	95.5	95.8	96.1
Philippines	95.1 (2000)	97.8 (2008)	95.7	98.5	94.5	97.0
Singapore	99.5 (2000)	99.8	99.6	99.8	99.4	99.7
Thailand	98.0 (2000)	98.1 (2005)	97.8	97.9	98.1	98.2
Viet Nam	93.9	96.9	93.6	96.5	94.2	97.4
<b>The Pacific</b>						
Cook Islands	99.0 (2001)	99.0 (2009)	...	...	...	...
Fiji	99.0	99.5 (2008)	98.9	...	99.0	...
Kiribati	92.0 (2000)	98.5	...	...	...	...
Marshall Islands	98.3	98.4 (2011)	...	...	...	...
Micronesia, Fed. States of	95.1 (2000)	95.7	...	...	...	...
Nauru	99.0 (2002)	96.0 (2007)	...	...	...	...
Palau	99.0 (2000)	99.7 (2005)	...	...	...	...
Papua New Guinea	66.7 (2000)	68.4	64.1	71.9	69.1	65.1
Samoa	99.4 (2004)	99.5	99.4	99.6	99.3	99.4
Solomon Islands	84.5	89.5 (2009)	80.0	...	90.0	...
Timor-Leste	...	79.5	...	78.6	...	80.5
Tonga	99.3 (1996)	99.6 (2007)	99.4	99.6	99.3	99.5
Tuvalu	98.7 (1991)	98.6 (2007)	...	...	...	...
Vanuatu	92.0 (2004)	94.3	91.9	94.4	92.1	94.1
<b>Developed Member Economies</b>						
Australia	...	...	...	...	...	...
Japan	...	...	...	...	...	...
New Zealand	...	...	...	...	...	...

... = Data not available at cutoff date.

a Figures refer to the same year as indicated in the column for "total."

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Data for 2000 and 2009 apply to reference period 1997–2000 and 2007–2009, respectively.

d Data for 2004 applies to reference period 2000–2004.

Sources: Millennium Indicators Database Online (UN 2012c); UNESCO Institute for Statistics Data Centre (UNESCO 2012); National Minimum Development Indicator Database (Secretariat of the Pacific Community 2012); for People's Rep. of China (Indicator 2.1): China Statistical Database (NBS 2012); for Taipei, China (Indicator 2.1): Educational Statistical Indicators Online (Ministry of Education 2012).

## Goal 3: Promote Gender Equality and Empower Women

### Snapshot

- The region has made substantial progress toward eliminating gender disparity at the primary level of education—almost two-thirds of the 46 reporting economies have achieved gender parity in primary education.
- Eighteen of the 46 reporting economies have gender parity indices higher than 1.03, implying higher secondary school enrollment among girls than boys.
- At the tertiary level, more than half of the reporting economies (21 of 40) had gender disparity ratios above 1.03, implying an improved tertiary enrollment among women.
- Female participation in nonagricultural wage employment in the region is gradually improving. From 1990 to 2010, more than half of the 36 reporting economies had either maintained or continued to improve female engagement in nonagricultural wage employment.
- Most economies in the region posted gains in female representation in national parliaments, including Nepal, which had the highest rate of female representation (at 33%) in the national parliament in 2012.

### Introduction

The target for Goal 3 is to *eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015*.

To track this target, the gender parity index (GPI) is used. The GPI refers to the ratio of the number of female students enrolled in a specific educational level to the number of male students in the same level. The index is standardized using the GPI of the gross enrollment ratios at each level to eliminate population structure effects. An economy with a GPI equal to 1.00 has achieved parity between the sexes, and a GPI less or greater than 1.00 indicates a disparity in favor of males or females, respectively (UN 2012a).

The accepted measure for gender parity in education is set at 0.97 to 1.03 (UN 2012b). However, when tracking progress, a cutoff ratio of 0.95 is considered “sufficient” (that is, a “passing grade”). In addition to gender parity at different educational levels, Goal 3 monitors gender parity in nonagricultural wage employment and women’s political empowerment.

The reference year used for gender parity in primary, secondary, or tertiary education is 2010, although the latest available data may be from 2002 to 2011. For the share of women in nonagricultural wage employment, the reference year is 2010, with the latest available data ranging from 2003 to 2010. For the proportion of seats women held in national parliaments, data for the latest year are for 2012, except that the latest data available for Fiji are for 2006. All the datasets include Australia, Japan, and New Zealand.

### Key Trends

**Substantial progress has been made in eliminating gender disparity at the primary level of education.** In 2010, almost two-thirds of the 46 reporting economies in the region achieved gender parity in primary education (Table 3.1). In Bangladesh, Kiribati, and Nauru, enrollment at the primary level favors girls more than boys while in Afghanistan, which posted the lowest GPI in 1991 and 2010, consistently more boys are enrolled in primary schools than girls.

In addition, almost 60% of the 46 reporting economies in the region posted ratios in 2010 that were higher than their ratios in 1991 or later years. This indicates continuing progress toward reducing gender disparity at the primary level. All of the economies in the region achieved ratios higher than the 0.95 cutoff, except for six developing economies: Viet Nam (0.94), the Lao PDR (0.93), Papua New Guinea (PNG) (0.89), Nepal (0.86), Pakistan (0.82), and Afghanistan (0.69). Thus, the gender gap at the primary level has narrowed considerably in most of the region’s economies.

**The number of economies in the region with more girls than boys enrolled in secondary schools has increased.**

In 2010, 18 of the 46 reporting economies had GPIs higher than 1.03, compared to 15 of 48 reporting economies in 1991, indicating higher enrollment among girls than boys in secondary schools. In addition, 17 economies achieved gender parity in secondary education.

While about 80% of the 46 reporting economies had achieved gender parity indices of 0.95 or higher, 9 developing economies had not reached the cutoff. As in the primary level, the developing economies with the lowest ratios included PNG, Pakistan, and Afghanistan which had the lowest ratio (0.51) in 2010.

**Enrollment in tertiary education among women is improving.**

In 2010, more than half of the reporting economies (21 out of 40) had ratios of 1.03 or above, including Brunei Darussalam, Palau, Sri Lanka, and Tonga (Figure 3.1). Palau's ratio, at 2.04 in 2002, shows that more than twice as many females than males were enrolled in tertiary education. Also, 30 economies posted higher GPIs than in the previous years, indicating the region's progress toward achieving gender parity in tertiary education.

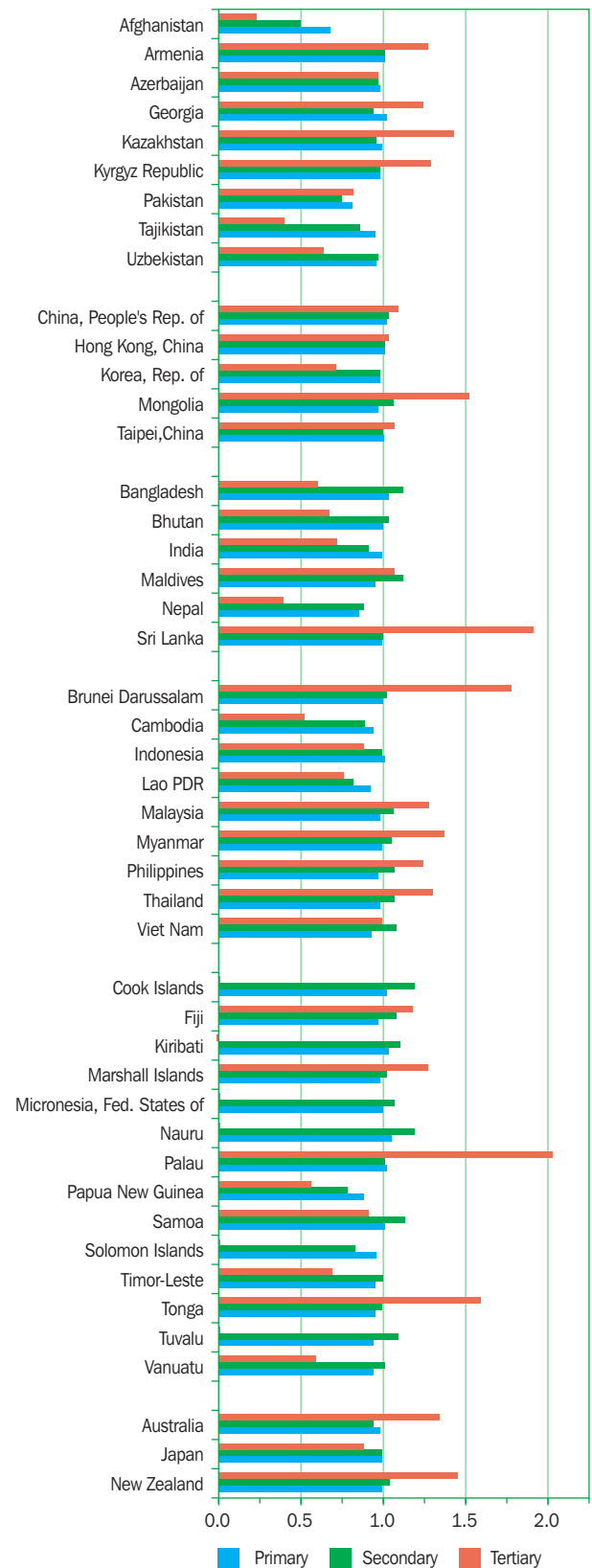
However, women in some parts of the region continue to be at a disadvantage, particularly in 17 economies where GPIs at the tertiary level are still below the 0.95 cutoff. Afghanistan, Nepal, and Tajikistan, the lowest among the 40 reporting economies, all had ratios below 0.50. Afghanistan slipped from a ratio of 0.28 in 2003 to a notably low 0.24 in 2009, which means that only 24 women were enrolled at the tertiary level for every 100 men.

The gains in gender parity in education do not necessarily translate into women having better labor market opportunities or higher economic status. This can be due to patterns of gender segregation in the labor market, where women are overrepresented in lower skilled occupations with poor pay, the informal sector, and agriculture. Even when both genders have comparable educational backgrounds, women are still likely to have more limited employment prospects (UNICEF 2009). Thus, to empower women could mean providing them equal career opportunities at all occupation levels, and access to the same wages as men with similar qualifications and experience.

**Female participation in nonagricultural wage employment in the region is gradually improving.**

From 1990 to 2010, more than half of the reporting economies with available data (19 of 36), had maintained or continued to improve the rate of female participation in nonagricultural wage employment.

Figure 3.1 Gender Parity Index in Primary, Secondary and Tertiary Education, 2010 or Latest Years



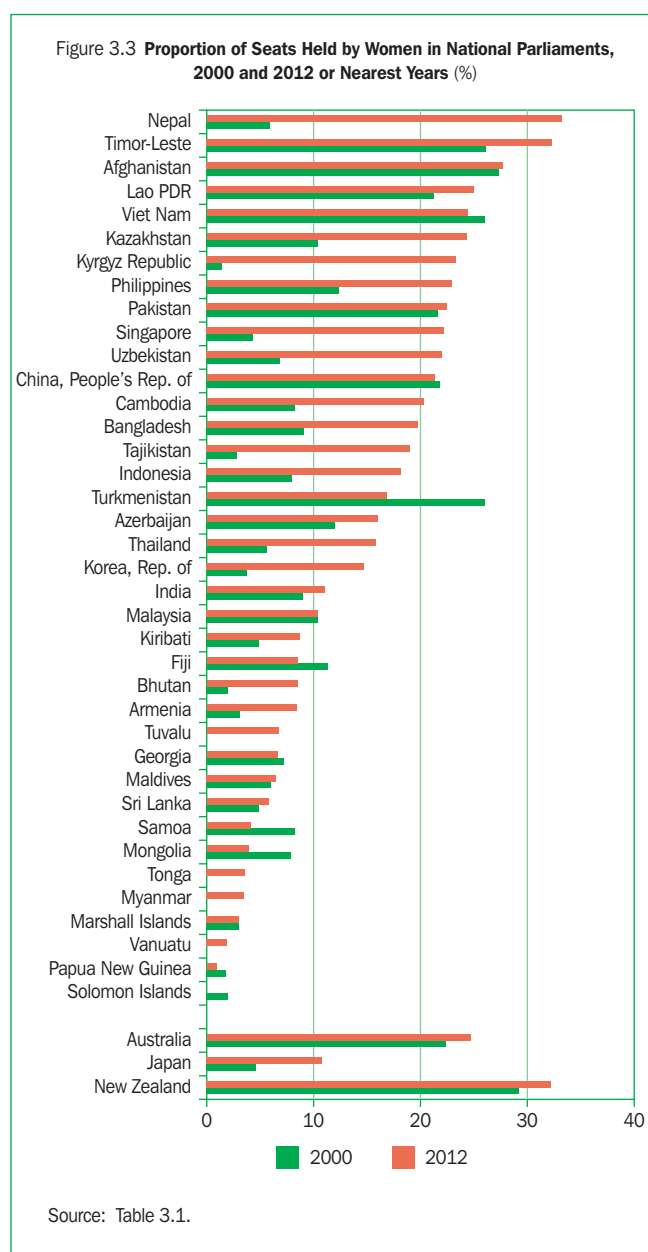
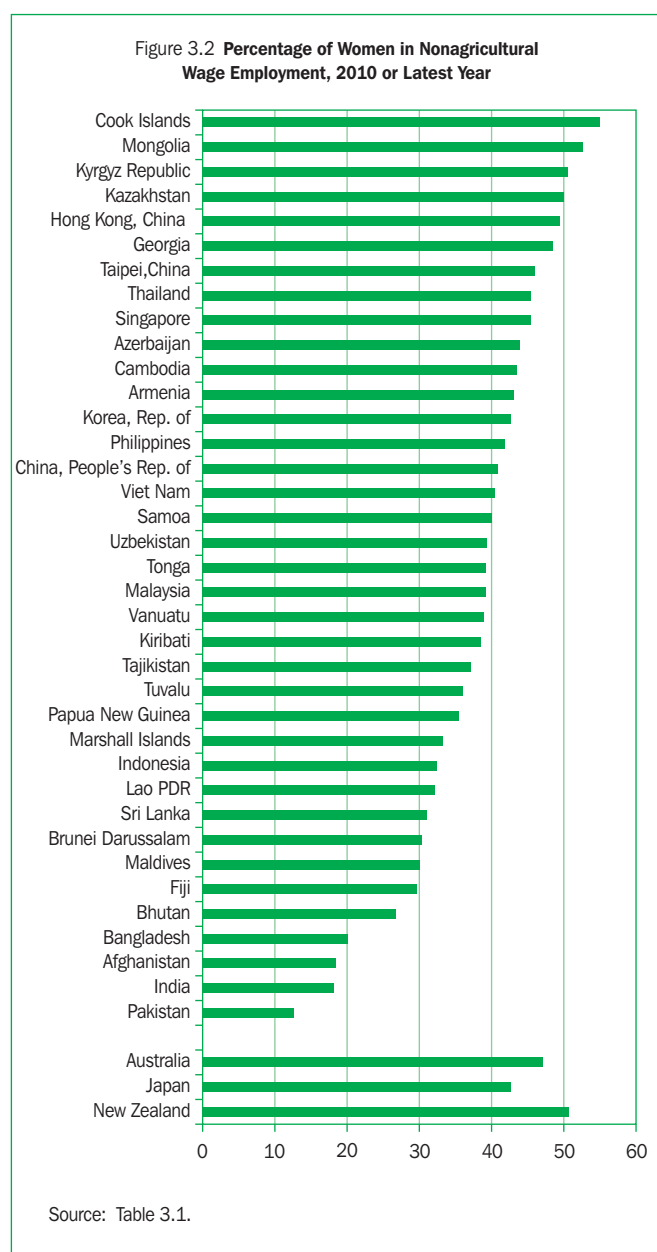
Source: Table 3.1.

Figure 3.2 shows that women achieved equal participation in the Cook Islands; Hong Kong, China; Kazakhstan; the Kyrgyz Republic; and Mongolia—where women’s employment rates in the nonagricultural sector were about 50%. Likewise, more than 40% of women were engaged in nonagricultural wage employment in some other economies. On the other hand, women’s share, at 20% or less, were lowest in Afghanistan, Bangladesh, India, and Pakistan; Pakistan had the lowest share of women (13%) employed in the nonagriculture sector.

**Most economies in the region posted gains in female representation in national parliaments.** More than 70% of the region’s 40 reporting economies had increased female representation during 2000–2012 (Figure 3.3).

The most significant gains posted were in Nepal and in three Central and Western Asian economies: the Kyrgyz Republic, Tajikistan, and Uzbekistan each posted improvements of at least 15 percentage points in 2012 over their 2000 rates. Nepal also had the highest rate of female representation in the national parliament in 2012, along with Timor-Leste and New Zealand, where almost a third of the seats were occupied by women.

Some governments have legislation to ensure that women are represented in the national parliament. Achieving higher rates of female participation in national parliamentary positions indicates that women are respected and trusted to contribute to the development of a nation, whether they are elected or appointed.



Overall, the greatest gender disparities favoring males were in Afghanistan, which consistently had the lowest GPI at all education levels. Other developing economies with relatively low GPIs at the primary level were Nepal, Pakistan, and PNG. At the secondary level, Pakistan and PNG still had low GPIs; and GPIs at the tertiary level remained low in Nepal and Tajikistan. The lowest shares of women in nonagricultural wage employment (at about 20% or less) were in Afghanistan, Bangladesh, India, and Pakistan.

## Data Issues and Comparability

Enrollment rates generally follow the United Nations Educational, Scientific and Cultural Organization (UNESCO) guidelines on definitions of education levels and methods of calculation. Many small Pacific island economies do not have facilities for tertiary education, and their students receive tertiary education abroad.

The most reliable information on female employment in nonagricultural activities comes from household labor force surveys, but these are not conducted in all economies in the region. Alternative sources include enterprise employment surveys, population censuses, and household demographic surveys.

The percentage of women in parliament refers only to national parliaments. In some economies, a more relevant measure of empowerment would be the number of women active in government at the local or community level.

Steps have been taken to improve the availability and use of statistics that capture gender gaps. One such initiative is the Evidence and Data for Gender Equality (EDGE) Initiative, which stemmed from the Busan Joint Action Plan for Gender Equality and Development. During 2012–2015, the United Nations (UN) Statistics Division and UN Women will jointly lead and manage EDGE and will be working closely with international organizations and government statistical agencies to meet the rising demand for greater support in accessing and using gender statistics—mainly by helping to build national capacity and strengthen national systems on data collection in critical areas. EDGE will also promote the work already being done to develop standards and definitions for people who gather and use statistics (UN Women 2012).

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## Goal 3 Targets and Indicators

Table 3.1 **Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education not later than 2015**

Regional Member	3.1 Ratio of Girls to Boys in Education Levels <sup>a</sup>					
	Primary		Secondary		Tertiary <sup>b</sup>	
	1991	2010	1991	2010	1991	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	0.55	0.69	0.51	0.51	0.28 (2003)	0.24 (2009)
Armenia	1.00 (2001)	1.02	1.06 (2001)	1.02	1.09 (1999)	1.28
Azerbaijan	0.99	0.99	1.01	0.98	0.67	0.98
Georgia	1.00	1.03	0.97	0.95 (2008)	0.91	1.25
Kazakhstan	1.01 (1999)	1.00 (2011)	1.00 (1999)	0.97 (2011)	1.14 (1999)	1.44 (2011)
Kyrgyz Republic	0.99 (1999)	0.99	1.02	0.99	1.04 (1999)	1.30 (2009)
Pakistan	0.67 (2000)	0.82	0.47	0.76	0.79 (2002)	0.83 (2008)
Tajikistan	0.98	0.96	0.86 (1999)	0.87	0.34 (1999)	0.41
Turkmenistan	...	...	1.02	...	1.15	...
Uzbekistan	0.98	0.97 (2011)	0.98 (1999)	0.98 (2011)	0.82 (1999)	0.65 (2011)
<b>East Asia</b>						
China, People's Rep. of	0.91	1.03	0.75	1.04	0.83 (2003)	1.10
Hong Kong, China	0.98 (1999)	1.02	0.98 (2001)	1.02	1.00 (2003)	1.04
Korea, Rep. of	1.01	0.99	0.97	0.99	0.49	0.72
Mongolia	0.99	0.98	1.10	1.07	1.84 (1999)	1.53
Taipei, China	1.01	1.01 (2011)	1.04	1.01 (2011)	0.96	1.08 (2011)
<b>South Asia</b>						
Bangladesh	0.97 (1998)	1.04 (2009)	0.99 (1999)	1.13	0.49 (1999)	0.61 (2009)
Bhutan	0.85 (1999)	1.01 (2011)	0.80 (1999)	1.04 (2011)	0.58 (1999)	0.68 (2011)
India	0.76	1.00 (2008)	0.70 (1999)	0.92	0.54	0.73
Maldives	1.01 (1999)	0.96 (2011)	1.08 (1999)	1.13 (2004)	2.29 (2003)	1.08 (2008)
Nepal	0.63	0.86 (2002)	0.46	0.89 (2006)	0.33	0.40 (2004)
Sri Lanka	0.96	1.00	1.09	1.01 (2004)	0.48	1.92
<b>Southeast Asia</b>						
Brunei Darussalam <sup>c</sup>	0.96	1.01	1.08	1.03	1.89 (1999)	1.79
Cambodia	0.87 (1999)	0.95	0.53 (1999)	0.90	0.33 (2000)	0.53 (2008)
Indonesia	0.97	1.02	0.82	1.00	0.88 (2000)	0.89
Lao PDR	0.79	0.93	0.70 (1999)	0.83	0.49 (1999)	0.77
Malaysia	1.00	0.99 (2008)	1.05	1.07 (2009)	1.02 (1999)	1.29 (2009)
Myanmar	0.96	1.00	0.98	1.06	1.60 (1998)	1.38 (2007)
Philippines	1.00	0.98 (2009)	1.10 (1999)	1.08 (2009)	1.27 (1999)	1.25 (2008)
Singapore	0.97	...	0.93	...	0.71	...
Thailand	0.98	0.99 (2009)	0.97	1.08 (2011)	1.17 (1999)	1.31 (2011)
Viet Nam	0.93 (1999)	0.94	0.90 (1999)	1.09	0.76 (1999)	1.00
<b>The Pacific</b>						
Cook Islands	0.95 (1999)	1.03 (2011)	1.08 (1999)	1.20 (2011)	...	...
Fiji	1.00	0.98 (2009)	0.97	1.09 (2009)	1.20 (2003)	1.19 (2005)
Kiribati	1.01	1.04 (2009)	1.07	1.11 (2008)	...	...
Marshall Islands	0.99 (1999)	0.99 (2011)	1.06 (1999)	1.03 (2009)	1.28 (2001)	1.28 (2003)
Micronesia, Fed. States of	0.98 (2004)	1.01 (2007)	1.06 (2004)	1.08 (2005)	...	...
Nauru	1.33 (2000)	1.06 (2008)	1.17 (2000)	1.20 (2008)	...	...
Palau	0.93 (1999)	1.03 (2007)	1.07 (1999)	1.02 (2004)	2.35 (2000)	2.04 (2002)
Papua New Guinea	0.85	0.89 (2008)	0.67	0.79 (2003)	0.58 (1998)	0.57 (1999)
Samoa	0.98 (1999)	1.02	1.11 (1999)	1.14	1.04 (1999)	0.92 (2001)
Solomon Islands	0.87	0.97 (2007)	0.60	0.84 (2007)	...	...
Timor-Leste	0.93 (2004)	0.96	0.98 (2004)	1.01	1.24 (2002)	0.70 (2009)
Tonga	1.00	0.96 (2007)	1.02	1.00 (2006)	1.34 (1999)	1.60 (2004)
Tuvalu	1.02 (1999)	0.95 (2006)	0.88 (1998)	1.10 (2001)	...	...
Vanuatu	0.96	0.95	0.81	1.02	0.57 (2002)	0.60 (2004)
<b>Developed Member Economies</b>						
Australia	1.00	0.99	1.00 (1999)	0.95	1.19	1.35
Japan	1.00	1.00	1.02	1.00	0.65	0.89
New Zealand	0.99	1.00	1.01	1.05	1.13	1.46

continued

## Goal 3 Targets and Indicators

Table 3.1 **Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education not later than 2015** (continued)

Regional Member	3.2 Share of Women in Wage Employment in the Nonagricultural Sector (%)			3.3 Proportion of Seats held by Women in National Parliament (%)		
	1990	2000	2010	1990	2000	2012
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	17.8	19.2 (2002)	18.4 (2008)	3.7	27.3 (2006)	27.7
Armenia	47.9	45.0 (2002)	43.1 (2009)	35.6	3.1	8.4
Azerbaijan	47.5 (1997)	47.6	43.9	12.0 (1997)	12.0	16.0
Georgia	49.4 (1998)	49.6 (2002)	48.5	6.8 (1997)	7.2	6.6
Kazakhstan	44.8	48.5 (2001)	50.0 (2008)	13.4 (1997)	10.4	24.3
Kyrgyz Republic	48.5 (1996)	45.8	50.6 (2009)	1.4 (1997)	1.4	23.3
Pakistan	7.7	13.0	12.6 (2008)	10.1	21.6 (2003)	22.5
Tajikistan	36.5 (1991)	40.0	37.1 (2006)	2.8 (1997)	2.8	19.0
Turkmenistan	39.9 (1995)	42.1 (2002)	...	26.0	26.0	16.8
Uzbekistan	37.0 (1991)	37.1	39.4 (2007)	6.0 (1997)	6.8	22.0
<b>East Asia</b>						
China, People's Rep. of	37.8	39.1 (1999)	40.9 (2004)	21.3	21.8	21.3
Hong Kong, China	41.2	44.8	49.5	...	...	...
Korea, Rep. of	38.1	40.1	42.6	2.0	3.7	14.7
Mongolia	48.5 (1993)	48.6	52.7	24.9	7.9	3.9
Taipei, China	42.9	44.0	46.0	...	...	...
<b>South Asia</b>						
Bangladesh	20.2 (1991)	24.7	20.1 (2005)	10.3	9.1	19.7
Bhutan	12.0	19.0 (1999)	26.8 (2009)	2.0	2.0	8.5
India	12.7	16.6	18.1 (2005)	5.0	9.0	11.0
Maldives	15.8	40.6	30.0 (2006)	6.3	6.0 (2001)	6.5
Nepal	15.1 (1999)	14.0 (2001)	...	6.1	5.9	33.2
Sri Lanka	30.2 (1997)	30.2	31.0 (2009)	4.9	4.9	5.8
<b>Southeast Asia</b>						
Brunei Darussalam <sup>c</sup>	22.5 (1991)	30.3	30.3 (2003)	...	...	...
Cambodia	53.5	41.1	43.5 (2004)	5.8 (1997)	8.2	20.3
Indonesia	29.2	31.7	32.4 (2008)	12.4	8.0 (2001)	18.2
Lao PDR	20.3	...	32.1 (2005)	6.3	21.2	25.0
Malaysia	35.3 (1991)	37.9	39.2 (2008)	5.1	10.4 (2001)	10.4
Myanmar	30.7	35.7 (1998)	...	...	...	3.5
Philippines	40.4 (1991)	40.9	41.9	9.1	12.4	22.9
Singapore	42.5 (1991)	43.6 (2001)	45.4 (2009)	4.9	4.3	22.2
Thailand	41.9	44.1	45.5 (2009)	2.8	5.6	15.8
Viet Nam	41.0 (1996)	40.7	40.4 (2004)	17.7	26.0	24.4
<b>The Pacific</b>						
Cook Islands	38.0 (1991)	46.0 (2001)	55.0 (2006)	...	...	...
Fiji	29.9	33.2	29.6 (2005)	4.3 (1997)	11.3	8.5 (2006)
Kiribati	...	36.8	38.5 (2005)	-	4.9	8.7
Marshall Islands	...	29.3 (1999)	33.2 (2005)	...	3.0 (2001)	3.0
Micronesia, Fed. States of	...	34.0	...	- (1997)	-	-
Nauru	...	42.0 (2002)	...	5.6	-	-
Palau	39.5	39.6	...	- (1997)	-	-
Papua New Guinea	27.9	32.1	35.4 (2004)	-	1.8	0.9
Samoa	31.0	36.7 (2001)	40.1 (2009)	-	8.2	4.1
Solomon Islands	30.8	30.8 (1999)	...	-	2.0	-
Timor-Leste	19.0	35.0 (2001)	...	...	26.1 (2003)	32.3
Tonga	35.7 (1996)	...	39.2 (2006)	-	- (2001)	3.6
Tuvalu	36.4 (1991)	36.0 (2002)	36.0 (2007)	7.7	-	6.7
Vanuatu	40.0 (1999)	37.5 (2004)	38.9 (2008)	4.3	-	1.9
<b>Developed Member Economies</b>						
Australia	43.7	46.3	47.1	6.1	22.4	24.7
Japan	38.0	40.0	42.6	1.4	4.6	10.8
New Zealand	47.8	49.8	50.7	14.4	29.2	32.2

... = Data not available at cutoff date, - = Magnitude equals zero.

- a The ratio is a gender parity index, measured as the ratio of female to male value of the gross enrollment ratios at primary, secondary, and tertiary levels of education.  
b There is no tertiary education in the Cook Islands, Kiribati, Nauru, the Solomon Islands, and Tuvalu. In the Maldives, tertiary education became available only recently.  
c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Millennium Indicators Database Online (UN 2012c); UNESCO Institute for Statistics Data Centre (UNESCO 2012); National Minimum Development Indicator (NMDI) Database (Secretariat of the Pacific Community 2012); and for Taipei, China: Educational Statistical Indicators Online (Ministry of Education 2012).



## Goal 4: Reduce Child Mortality

### Snapshots

- Progress with improving child survival is slow in Asia and the Pacific region, as in all other developing regions. By 2010, only 4 of 43 economies had reduced their under-5 mortality rates (U5MRs) or child mortality rates to one-third of 1990 values, and 28 economies are not expected to meet the MDG target by 2015.
- From more than 100 children under-5 years dying for every 1,000 live births in 1990, the Maldives, Mongolia, and Timor-Leste have become early achievers.
- In the region in 2010, under-5 and infant mortality improved from the 1990 levels, but still in 2010 close to 3.2 million children under 5 years of age died, about 2.5 million of them before reaching 1 year. Compared to 1990, in 2010 the U5MR was halved in South Asia and was reduced by 25% in Central and West Asia. Infant deaths account for a significant proportion of under-5 mortality.
- In 2010, about 85% of the region's children had been immunized for measles, a leading cause of death among children. The People's Republic of China (PRC) has immunized 99% of its 1-year-old children against measles, one of the region's highest rates. The proportions of 1-year-olds immunized against measles are lowest in South Asia and the Pacific.

### Introduction

The **Goal 4** target is to reduce the U5MR by two-thirds between 1990 and 2015.

Two related indicators are

- to reduce *by two-thirds, between 1990 and 2015, the U5MR*; and
- to reduce *by two-thirds, between 1990 and 2015, the infant mortality rate (IMR)*.

A related indicator is the percentage of 1-year-old children who have been immunized against measles. Immunization against measles has a direct impact on child mortality, and the percentage of 1-year-olds who have been immunized is also a good indicator of the quality of the child health care system.

### Key Trends

**In Asia and the Pacific region in 2010, close to 3.2 million children died before reaching their 5th birthday.** This is about 9,500 fewer child deaths each day than in the 1990 count. Compared with 1990, by 2010 South Asia had halved its U5MR and Central Asia has reduced about 25%. The *Asia Pacific Regional MDG Report 2011/2012* estimates that, given current trends, 12 million child deaths will occur during 2011–2015; however, if the MDG target is reached, more than 2 million lives can be saved (ESCAP, ADB, and UNDP 2012).

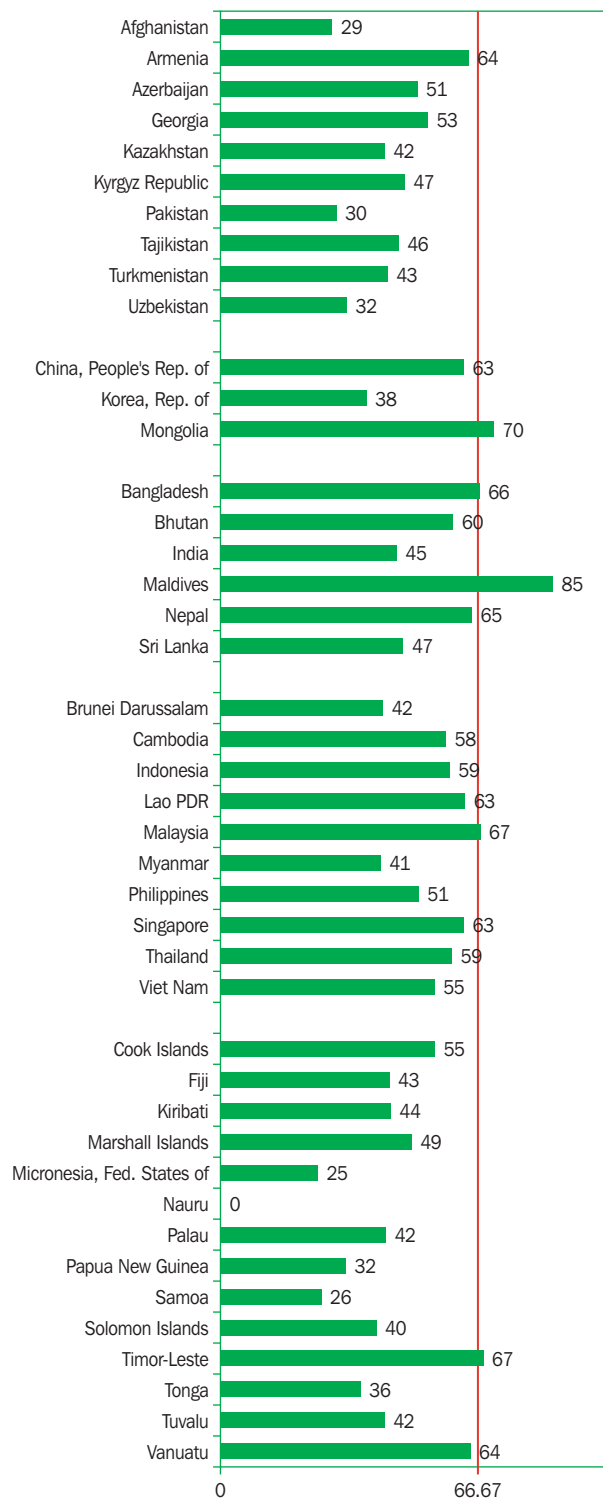
Figure 4.1 graphs the reduction in U5MRs from 1990 to 2010; the vertical line indicates the targeted two-thirds reduction. Four economies have reduced their 1990 U5MRs by at least two-thirds in 2010—Malaysia, the Maldives, Mongolia, and Timor-Leste. Ten economies are expected to meet the target by 2015, including 3 of the

region's most populous ones—Bangladesh, the PRC, and Indonesia. Progress in reducing child mortality is slow for 28 economies. Nauru has recorded no progress.

The *Asia Pacific Regional MDG Report 2011/2012* also suggests that some economies that are progressing slowly could meet the target by saving 2 more children per 1,000 live births from dying per year. India could reach the target by reducing its rate by 5 deaths.

**In Asia and the Pacific region in 2010, about 2.5 million children did not reach the age of 1.** IMRs follow the trend of U5MRs. While there are improvements, the region's progress in reducing infant mortality is slightly slower than its progress toward the U5MR, with 34 economies not expected to reach the target by 2015.

Figure 4.1 Under-Five Mortality Rate, Percent Reduction between 1990 and 2010



Source: Table 4.1.

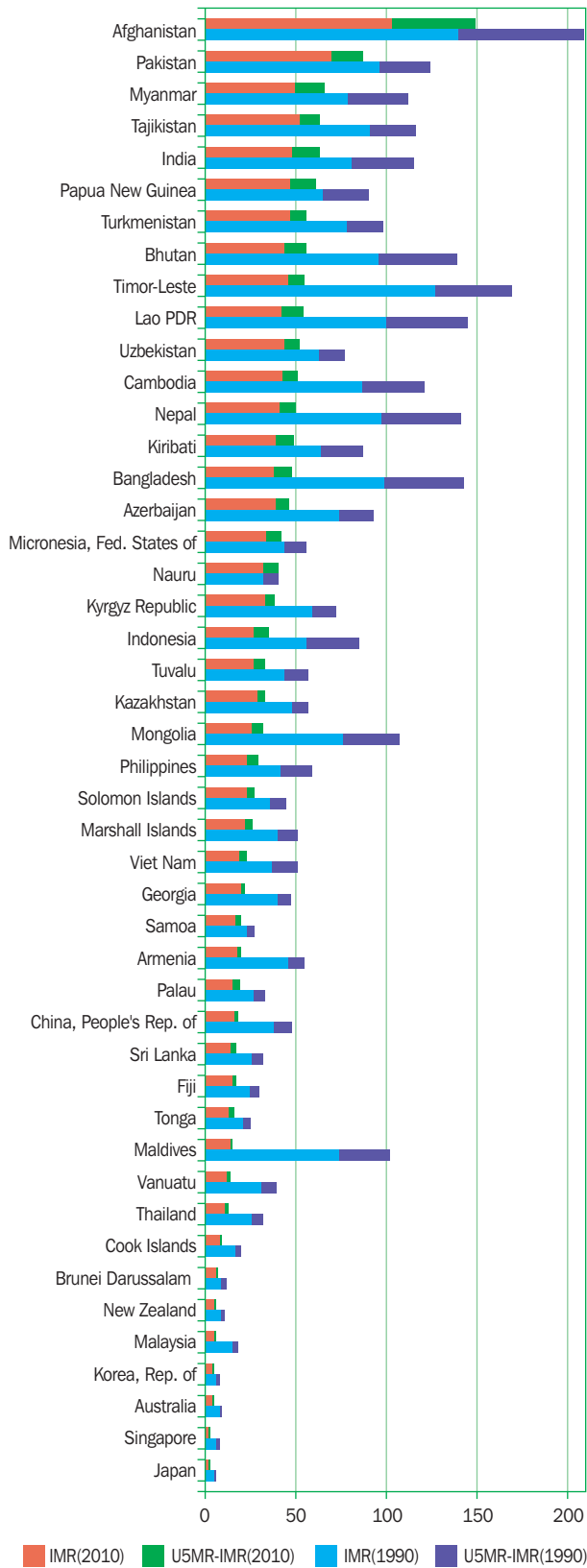
Figure 4.2 shows the U5MRs and IMRs in 1990 and 2010. Some economies were able to bring down their rates remarkably, from U5MRs exceeding 100 in 1990 to be early achievers or likely to meet the target by 2015. Economies that are early achievers or on track to meet the U5MR target are Bangladesh, Bhutan, the Lao PDR, the Maldives, Mongolia, Nepal, and Timor-Leste. For the IMR, Bangladesh, the Lao PDR, and Timor-Leste are on track or early achievers. Figure 4.2 also shows that infant deaths account for a significant proportion of under-5 mortality, so that increasing the chances of infant survival can have a strong impact on reducing child mortality. One measure to reduce child mortality is measles immunization.

Measles is a highly contagious viral respiratory infection that kills and can leave survivors with life-long disabilities. Most at risk are children under 5 who have not been vaccinated against the disease.

Figure 4.3 presents the proportion of 1-year-old children immunized against measles in the 1990s and 2010. For this indicator, 100% immunization is the desirable outcome. In 2010, all of the 46 economies reported at least a 50% immunization rate, and more than half of them reported at least 90% immunization rates. In 8 economies (including the PRC), the immunization rate is 99%. Four economies—Afghanistan, Cambodia, Georgia, and the Lao PDR—had at least doubled their 1990 immunization rates in 2 decades.

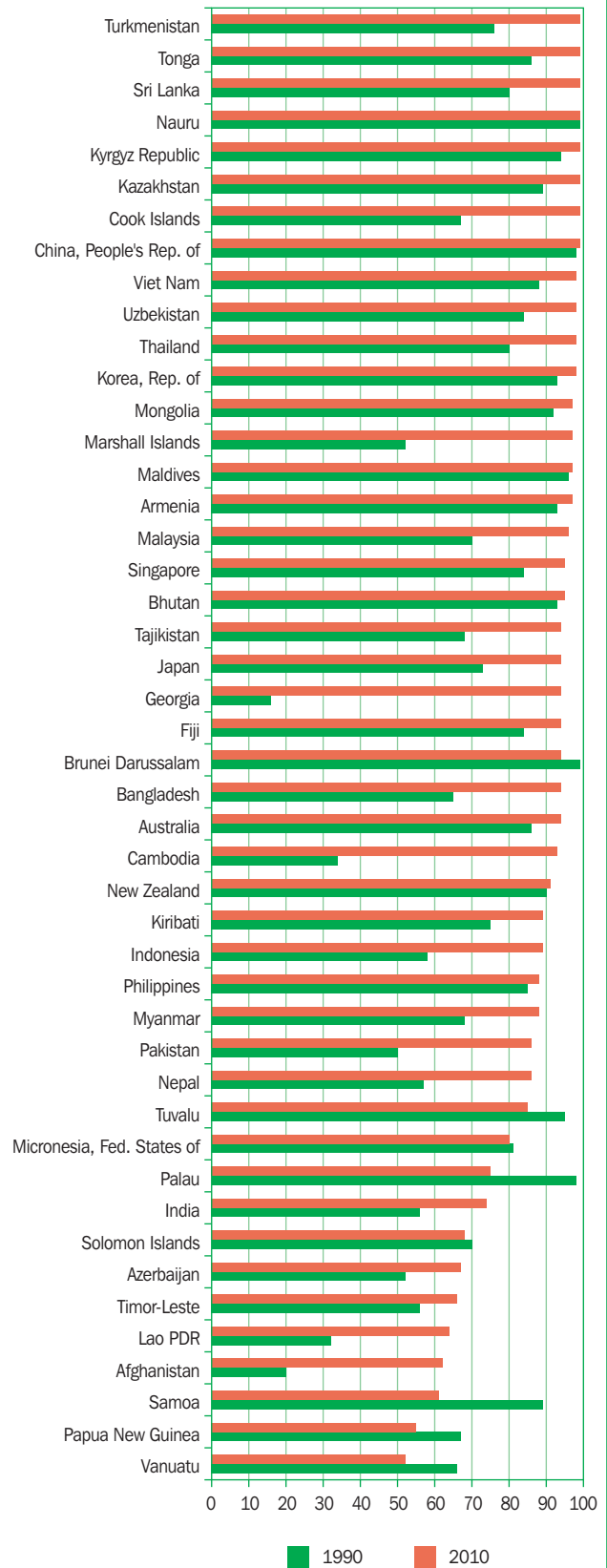
Eight economies—7 of them from the Pacific—showed a decline in the proportion of 1-year-olds immunized against measles. Palau, Papua New Guinea, and Vanuatu showed a steady decrease; the Federated States of Micronesia, Samoa, and the Solomon Islands' proportion of immunized children had increased by 2000 but then had regressed by 2010. Tuvalu's fell from a high of 95% in 1990 to 81% in 2000 and recovered to 85% in 2010.

Figure 4.2 Under-Five and Infant Mortality Rates, 1990 and 2010



Source: Table 4.1.

Figure 4.3 Proportion of 1-Year-Old Children Immunized Against Measles, 1990 or Earliest Year and 2010 (%)



Source: Table 4.1.

## Data Issues and Comparability

In more developed economies, data on mortality are usually taken from vital statistics registration records. Most developing economies lack fully functional vital registration systems; thus, censuses and household surveys such as Demographic and Health Surveys and Multiple Indicator Cluster Surveys have become primary sources of data, although with some limitations as to their quality. Because the surveys may not be held each year, econometric estimation techniques may be used to produce a consistent time series. For these reasons, mortality data are of varying quality in Asia and the Pacific region.

Data on immunization may be provided directly by the health workers and clinics providing inoculation or, more commonly in the Asian region, the information is collected from samples of households in health and demographic surveys. As with mortality data, estimation techniques will often be used to convert partial data into comprehensive estimates.

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## Goal 4 Target and Indicators

Table 4.1 Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

Regional Member	4.1 Under-Five Mortality Rate (per 1,000 live births)			4.2 Infant Mortality Rate (per 1,000 live births)			4.3 Proportion of 1-Year-Old Children Immunized against Measles (%)		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia<sup>a</sup></b>	<b>120</b>	<b>101</b>	<b>89</b>	<b>92</b>	<b>78</b>	<b>69</b>	<b>55</b>	<b>61</b>	<b>84</b>
Afghanistan	209	151	149	140	104	103	20	27	62
Armenia	55	33	20	46	29	18	93 (1992)	92	97
Azerbaijan	93	67	46	74	56	39	52 (1992)	67	67
Georgia	47	33	22	40	29	20	16 (1992)	73	94
Kazakhstan	57	44	33	48	38	29	89 (1992)	99	99
Kyrgyz Republic	72	52	38	59	44	33	94 (1992)	98	99
Pakistan	124	101	87	96	80	70	50	59	86
Tajikistan	116	93	63	91	75	52	68 (1992)	88	94
Turkmenistan	98	74	56	78	61	47	76 (1992)	96	99
Uzbekistan	77	63	52	63	53	44	84 (1992)	99	98
<b>East Asia<sup>a</sup></b>	<b>47</b>	<b>32</b>	<b>18</b>	<b>37</b>	<b>26</b>	<b>16</b>	<b>98</b>	<b>84</b>	<b>99</b>
China, People's Rep. of	48	33	18	38	27	16	98	84	99
Hong Kong, China	...	...	...	6	3	2	...	...	...
Korea, Rep. of	8	58	5	6	5	4	93	95	98
Mongolia	107	61	32	76	47	26	92	92	97
Taipei, China	...	...	...	5	6	4	...	...	...
<b>South Asia<sup>a</sup></b>	<b>118</b>	<b>85</b>	<b>61</b>	<b>83</b>	<b>63</b>	<b>46</b>	<b>57</b>	<b>58</b>	<b>77</b>
Bangladesh	143	86	48	99	63	38	65	72	94
Bhutan	139	89	56	96	65	44	93	78	95
India	115	86	63	81	63	48	56	55	74
Maldives	102	47	15	74	37	14	96	99	97
Nepal	141	84	50	97	64	41	57	77	86
Sri Lanka	32	23	17	26	19	14	80	99	99
<b>Southeast Asia<sup>a</sup></b>	<b>72</b>	<b>48</b>	<b>32</b>	<b>50</b>	<b>35</b>	<b>25</b>	<b>70</b>	<b>81</b>	<b>91</b>
Brunei Darussalam <sup>b</sup>	12	9	7	9	7	6	99	99	94
Cambodia	121	103	51	87	77	43	34	65	93
Indonesia	85	54	35	56	38	27	58	74	89
Lao PDR	145	88	54	100	64	42	32	42	64
Malaysia	18	11	6	15	9	5	70	88	96
Myanmar	112	87	66	79	64	50	68	84	88
Philippines	59	40	29	42	30	23	85	80	88
Singapore	8	4	3	6	3	2	84	96	95
Thailand	32	18	13	26	15	11	80	94	98
Viet Nam	51	35	23	37	27	19	88	97	98
<b>The Pacific<sup>a</sup></b>	<b>89</b>	<b>69</b>	<b>53</b>	<b>66</b>	<b>53</b>	<b>42</b>	<b>61</b>	<b>65</b>	<b>60</b>
Cook Islands	20	13	9	17	11	8	67	76	99
Fiji	30	23	17	25	19	15	84	81	94
Kiribati	87	65	49	64	50	39	75	80	89
Marshall Islands	51	37	26	40	30	22	52	94	97
Micronesia, Fed. States of	56	49	42	44	39	34	81	85	80
Nauru	40	40	40	32	32	32	99 (1997)	7	99
Palau	33	25	19	27	20	15	98	83	75
Papua New Guinea	90	74	61	65	55	47	67	62	55
Samoa	27	23	20	23	20	17	89	93	61
Solomon Islands	45	35	27	36	28	23	70	85	68
Timor-Leste	169	104	55	127	82	46	...	56 (2002)	66
Tonga	25	20	16	21	17	13	86	95	99
Tuvalu	57	44	33	44	35	27	95	81	85
Vanuatu	39	23	14	31	20	12	66	61	52
<b>Developed Member Economies<sup>a</sup></b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>76</b>	<b>95</b>	<b>94</b>
Australia	9	6	5	8	5	4	86	91	94
Japan	6	5	3	5	3	2	73	96	94
New Zealand	11	7	6	9	6	5	90	85	91
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>88</b>	<b>66</b>	<b>48</b>	<b>63</b>	<b>50</b>	<b>38</b>	<b>73</b>	<b>69</b>	<b>85</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>86</b>	<b>65</b>	<b>47</b>	<b>62</b>	<b>49</b>	<b>37</b>	<b>73</b>	<b>70</b>	<b>86</b>
<b>WORLD</b>	<b>88</b>	<b>73</b>	<b>57</b>	<b>61</b>	<b>51</b>	<b>40</b>	<b>72</b>	<b>72</b>	<b>85</b>

... = Data not available at cutoff date.

a Aggregates are derived for reporting economies only.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Millennium Indicators Database Online (UNSD 2012); for Hong Kong, China: Census and Statistics Department; for Taipei, China: Directorate-General of Budget, Accounting and Statistics; ADB staff estimates.

## Goal 5: Improve Maternal Health

### Snapshots

- In Asia and the Pacific, maternal health has been improved significantly, with the maternal mortality ratio (MMR) reduced by more than half the 1990 levels. However, the MDG target is not likely to be achieved, as this requires a further 25% reduction of the MMR. Among the 33 developing economies with available data, 24 are expected to meet this goal only after 2015. This situation is similar to other developing regions.
- MMRs decreased in economies where deliveries attended by skilled health professionals and antenatal care coverage increased. By 2010, South Asia's MMRs had declined to 201 deaths per 100,000 live births from 622 in 1990.

### Introduction

Goal 5 has two targets:

- 5.A: **Reduce by three-quarters, between 1990 and 2015, the MMR.** The MMR is calculated as the number of maternal deaths per 100,000 live births. A related indicator is the number of births that are attended to by skilled health personnel who have been trained to conduct deliveries and care for newborn babies.
- 5.B: **Achieve, by 2015, universal access to reproductive health services.** These services cover advice on contraceptive methods and family planning, antenatal care, and transmission of HIV/AIDS and other sexually transmitted diseases. This new target was introduced in the revised MDG framework of 2008. The target has no direct indicator and is measured by a set of four related indicators—contraceptive use, adolescent birth rates, antenatal care coverage, and unmet need for family planning.

### Key Trends

**Maternal health has improved significantly in the region, with MMRs reduced by more than half the 1990 levels.** Four of the 33 developing economies with data have reduced their MMRs by three-quarters. However, 24 economies are expected to meet the target only after 2015. This is unfortunate, as maternal deaths related to childbirth are generally preventable, as demonstrated by the early achievers.

Figures 5.1 and 5.2 show the MMRs in 1990, 2000, and 2010. Figure 5.1 illustrates the MMRs for economies in the region with relatively high ratios, and Figure 5.2 is for economies with relatively lower MMRs.

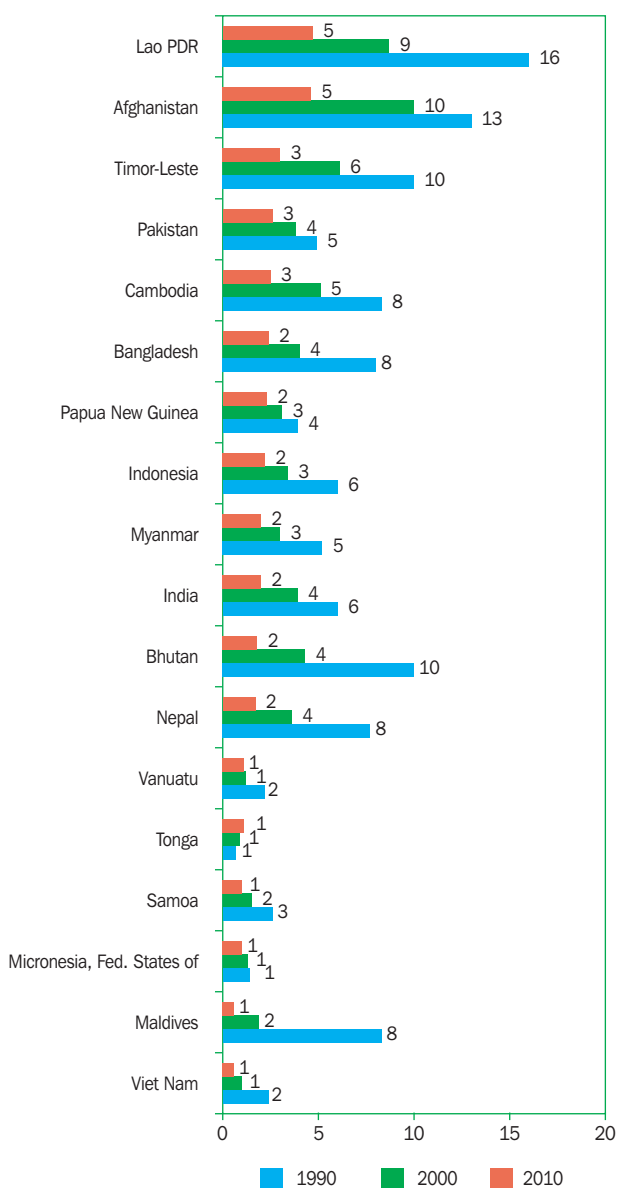
Figure 5.1 shows 18 economies with ratios of 100 or more in 2010. The Maldives and Viet Nam are included, although their ratios are below 100, because they had very high MMRs in 1990. Four of the most populous economies are included here—Bangladesh, India, Indonesia, and Pakistan. Only in Tonga is the MMR continuing to increase. Ten of the economies, including the early achievers Bhutan, the Maldives, Nepal, and

Viet Nam, had greater reductions during 1990–2000 than 2000–2010. Afghanistan's large reduction occurred from 2000 to 2010.

Figure 5.2 shows the 22 economies with MMRs lower than 100. The ratios for the high-income economies (Australia, Japan, the Republic of Korea, New Zealand, and Singapore) do not exceed 20. The People's Republic of China (PRC) is on track to reach the goal in 2015, with a low MMR of 37. Five economies—Azerbaijan, the Kyrgyz Republic, Tajikistan, Thailand, and Turkmenistan—experienced a rise by 2000, then a decline by 2010.

**Trained health personnel such as nurses, doctors, or midwives play a pivotal role during childbirth.** Their presence may spell the difference between life and death of a mother or her infant. They possess the skills to administer interventions when life-threatening complications occur during deliveries and the knowledge to decide whether to elevate the care to a higher level. Thus, the target is to reduce by three-quarters the number of births not attended by skilled workers.

Figure 5.1 **Maternal Mortality Ratio, 1990, 2000, 2010**  
(deaths per 1,000 live births)

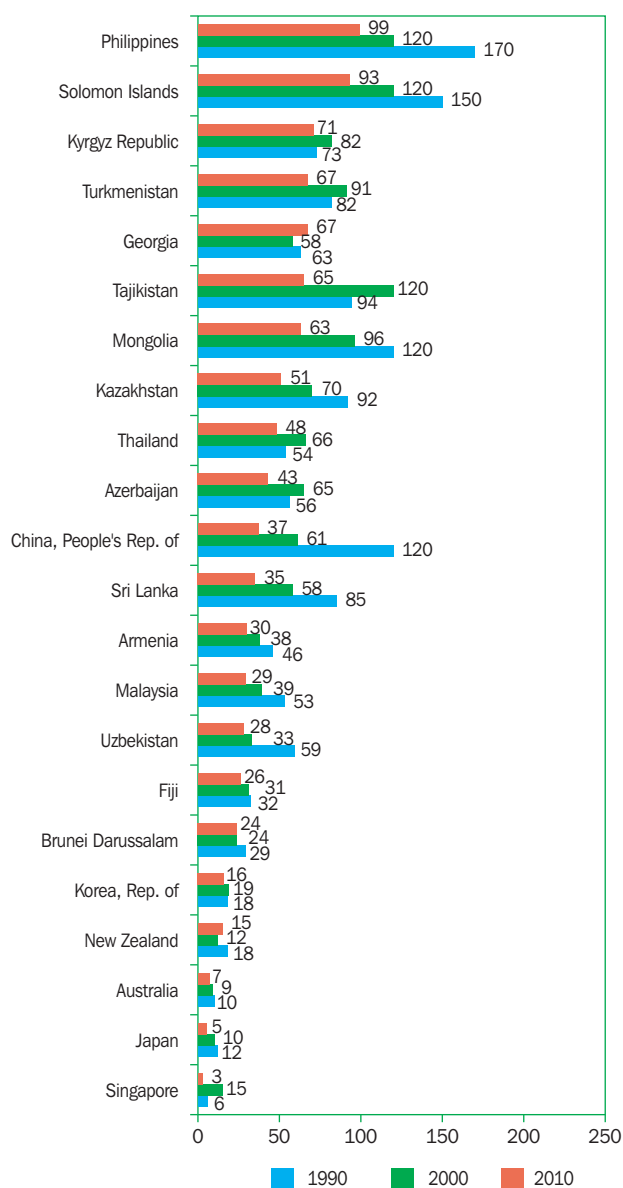


Source: Table 5.1.

Table 5.1 presents the proportion of births attended by trained health personnel. In 40 of the 46 reporting economies, at least one in every two births is attended by skilled health personnel.

Figure 5.3 shows the annual average change in births attended in 44 economies. Afghanistan, Bangladesh, Bhutan, and Nepal had a double-digit rise in births with skilled attendants present. The majority of economies showed little change in this aspect, from an already high ratio. Of the 9 economies that registered declines, 8 had drops of at least 8 percentage points.

Figure 5.2 **Maternal Mortality Ratio, 1990, 2000, 2010**  
(deaths per 100,000 live births)



Source: Table 5.1.

Developing member economies that have already attained the target of reducing by three-quarters the share of births that are not attended by skilled health personnel from the 1990 levels include Armenia, Brunei Darussalam, the PRC, the Republic of Korea, Malaysia, Mongolia, Palau, Sri Lanka, Tonga, Turkmenistan, and Uzbekistan.

**During pregnancy and through the antenatal period are critical times for both the mother and her unborn baby.** Antenatal care entails visits to a midwife or doctor who carries examinations of the mother's abdomen, blood, urine, and blood pressure and monitors fetal growth.

It also includes advice on diet, exercise, feeding, and techniques to make childbirth easier. Antenatal care coverage, an indicator of access and utilization of care during pregnancy, is measured as the number of visits as a percentage of live births. At least 4 visits per pregnancy are recommended.

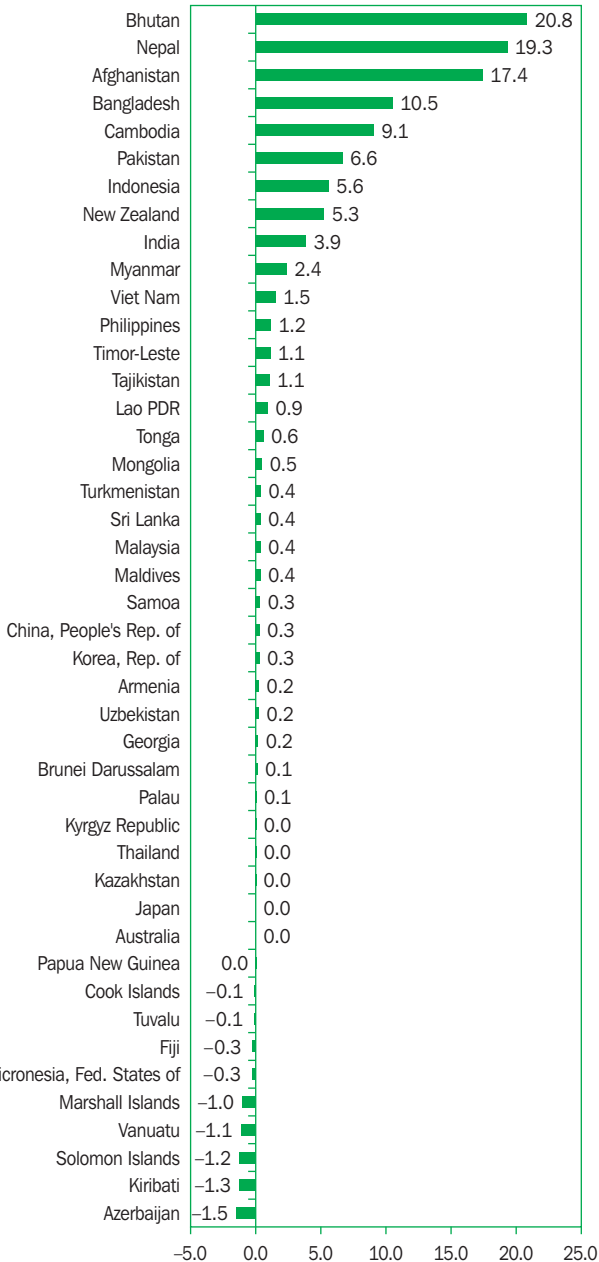
Table 5.2 presents antenatal care coverage for at least 1 visit and at least 4 visits. The MDG target is deemed attained when 95% of births have at least one visit. Ten of the economies where data are available have reached

the target—Brunei Darussalam, Kazakhstan, Kiribati, the Kyrgyz Republic, the Maldives, Mongolia, Sri Lanka, Thailand, Turkmenistan, and Uzbekistan.

Figure 5.4 charts 24 economies with data for coverage of at least 1 visit and at least 4 visits for the same survey year. Less than 1% of pregnant women in Sri Lanka, the Maldives, and Thailand do not utilize antenatal care, but in Bangladesh, nearly 50% of mothers have no antenatal care. For antenatal care in the most populous economies, at least 80% of pregnant women make at least 4 visits in Indonesia, 50% in India, and less than 30% in Bangladesh and Pakistan.

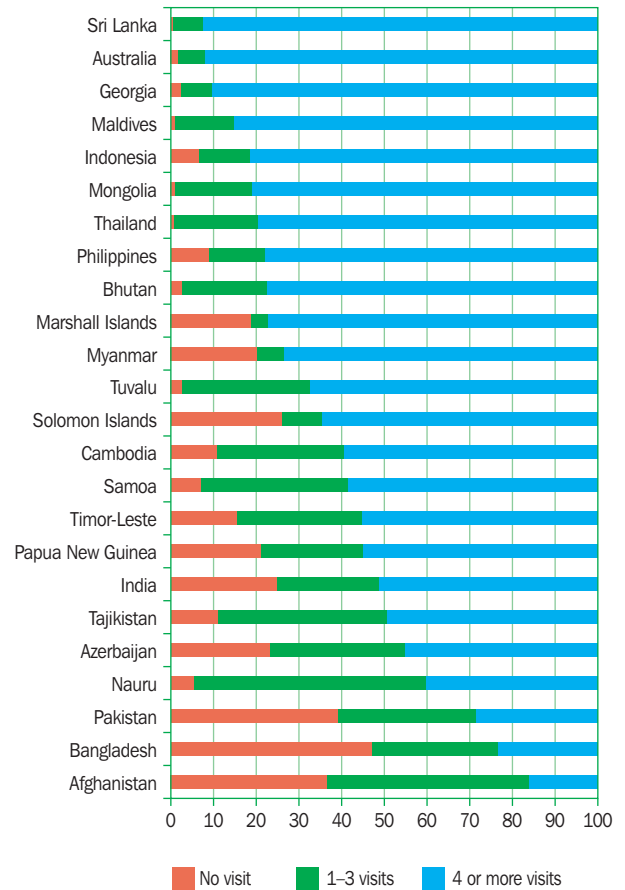
**Early child-bearing poses health risks for the young mothers and their newborn child.** The World Health Organization cites higher risk of maternal death, health problems including anemia, malaria, sexually transmitted infections, postpartum hemorrhage, and depression for the mother; and a high probability of stillbirths, deaths during the first months of life, preterm births, and low

Figure 5.3 Births Attended by Skilled Health Personnel, Annual Percent Change, Earliest and Latest Year



Source: Table 5.1.

Figure 5.4 Antenatal Care Coverage as a Percentage of Live Births, Latest year



Source: Table 5.2.



birth weights for the child. The adolescent birth rate measures the annual births to women 15–19 years of age per 1,000 women in that age group.

Table 5.2 reveals that in 8 of 47 economies in the 1990s, between 10%–20% of adolescent women gave birth; for the latest year, only 3 economies have this high proportion.

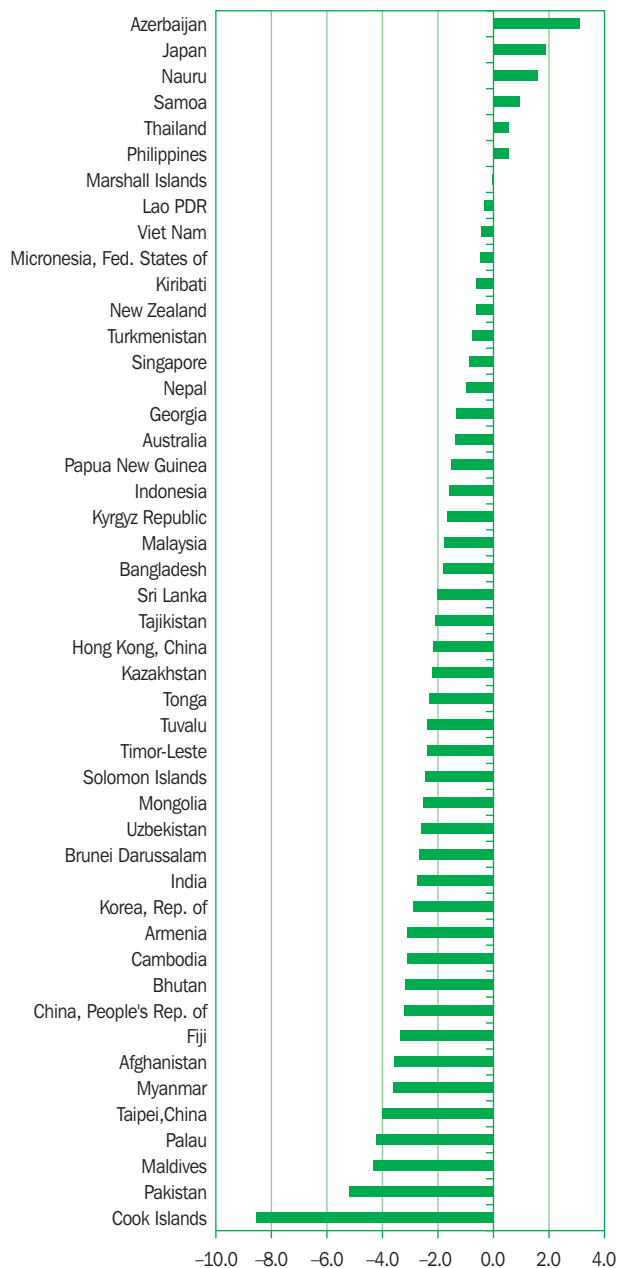
Figure 5.5 shows that the average annual change in the adolescent birth rates in 41 of 47 economies is

declining. The 6 with increasing adolescent birth rates include Japan, the Philippines, and Thailand. Adolescent pregnancy is waning somewhat in the Marshall Islands, but still high at 105 per 1,000 adolescent women.

**Part of the strategy to improve maternal health is to prevent unintended or closely spaced pregnancies through universal access to reproductive health.** The contraceptive prevalence rate, or the percentage of married women aged 15–49 who practice any form of contraception, is a proxy indicator of access to reproductive health. Table 5.2 shows that, for the latest year, at least 50% of married women in 20 of 35 reporting economies use contraception.

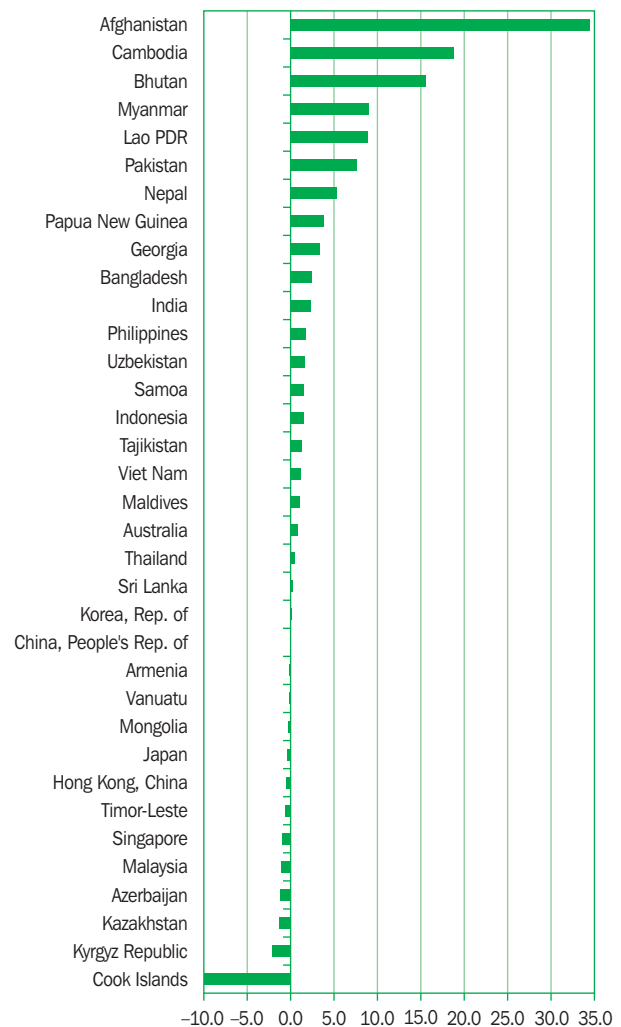
Figure 5.6 presents the average annual change in the contraceptive prevalence rate of 35 economies in Asia and the Pacific. The highest growth occurred in Afghanistan. One of the findings of the 2010 Afghanistan Mortality

Figure 5.5 Adolescent Birth Rate, Average Annual Change, 1990 or Earliest Year and Latest Year



Source: Table 5.2.

Figure 5.6 Contraceptive Prevalence Rate, Average Annual Change, Earliest and Latest Years



Source: Table 5.2.

Survey is that contraceptive use increases rapidly with women's education and wealth (APHI et al. 2011). Contraceptive use has quadrupled in Cambodia in 2011 from 1995. The PRC and the Republic of Korea, where about 8 in every 10 women use a form of contraception, showed near zero growth. Twelve economies showed a drop in the rate, including Hong Kong, China; Japan; and Singapore.

## Data Issues and Comparability

The most reliable information on maternal mortality comes from vital registration records or other administrative sources. In many developing economies, however, registration records are not well maintained, with many births taking place at home rather than in health facilities, and many not being attended to by trained health personnel. Mortality ratios for these economies are based on household surveys of varying reliability. The estimates presented are point estimates and the lower and upper bounds will reflect the range of uncertainty in the estimates. For methodological details, refer to WHO (2010).

Data on the proportion of births attended by skilled health personnel and on the proportion preceded by an antenatal care visit are usually collected through household surveys. It is difficult to achieve standardization in the definition of skilled health personnel due to the differences in the training of health personnel in the various economies.

Data on the adolescent birth rate are derived from vital registration systems or household surveys. Data derived from either source may suffer from limitations such as misreporting of the mother's age and exclusion of previous births.

Data on contraceptive prevalence rates are obtained mostly from nationally representative surveys such as the demographic and health surveys, fertility surveys, health, socio-economic or other surveys with comparable questions on current use of contraception.

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## Goal 5 Targets and Indicators

Table 5.1 **Target 5.A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio**

Regional Member	5.1 Maternal Mortality Ratio (per 100,000 live births)			5.2 Proportion of Births Attended by Skilled Health Personnel (%)	
	1990	2000	2010	Earliest Year	Latest Year
<b>Developing Member Economies</b>					
<b>Central and West Asia<sup>a</sup></b>	<b>462</b>	<b>418</b>	<b>250</b>		
Afghanistan	1300	1000	460	12.4 (2000)	34.0 (2010)
Armenia	46	38	30	96.4 (1997)	99.5 (2010)
Azerbaijan	56	65	43	99.8 (1998)	88.0 (2006)
Georgia	63	58	67	96.6 (1990)	99.9 (2009)
Kazakhstan	92	70	51	99.6 (1995)	99.8 (2008)
Kyrgyz Republic	73	82	71	98.1 (1997)	98.5 (2008)
Pakistan	490	380	260	18.8 (1990)	38.8 (2006)
Tajikistan	94	120	65	79.0 (1996)	88.4 (2007)
Turkmenistan	82	91	67	95.8 (1996)	99.5 (2006)
Uzbekistan	59	33	28	97.5 (1996)	99.9 (2006)
<b>East Asia<sup>a</sup></b>	<b>117</b>	<b>60</b>	<b>37</b>		
China, People's Rep. of	120	61	37	94.0 (1990)	99.3 (2009)
Hong Kong, China	...	...	...	...	...
Korea, Rep. of	18	19	16	98.0 (1990)	100.0 (1997)
Mongolia	120	96	63	93.6 (1998)	99.0 (2010)
Taipei, China	12	8	4	...	...
<b>South Asia<sup>a</sup></b>	<b>622</b>	<b>387</b>	<b>201</b>		
Bangladesh	800	400	240	9.5 (1993)	26.5 (2010)
Bhutan	1000	430	180	14.9 (1994)	64.5 (2010)
India	600	390	200	34.2 (1993)	52.7 (2007)
Maldives	830	190	60	90.0 (1994)	94.8 (2009)
Nepal	770	360	170	7.4 (1991)	36.0 (2011)
Sri Lanka	85	58	35	94.1 (1993)	98.6 (2006)
<b>Southeast Asia<sup>a</sup></b>	<b>409</b>	<b>235</b>	<b>151</b>		
Brunei Darussalam <sup>b</sup>	29	24	24	98.0 (1994)	99.9 (2009)
Cambodia	830	510	250	34.0 (1998)	71.0 (2010)
Indonesia	600	340	220	40.7 (1990)	79.4 (2007)
Lao PDR	1600	870	470	19.4 (2001)	20.3 (2006)
Malaysia	53	39	29	92.8 (1990)	98.6 (2007)
Myanmar	520	300	200	46.3 (1991)	63.9 (2007)
Philippines	170	120	99	52.8 (1993)	62.2 (2008)
Singapore	6	15	3	...	100.0 (1998)
Thailand	54	66	48	99.3 (2000)	99.5 (2009)
Viet Nam	240	100	59	77.1 (1997)	87.7 (2006)
<b>The Pacific<sup>a</sup></b>	<b>415</b>	<b>309</b>	<b>213</b>		
Cook Islands	...	...	...	99.0 (1991)	98.0 (2002)
Fiji	32	31	26	100.0 (1998)	99.0 (2002)
Kiribati	...	...	...	72.0 (1994)	63.0 (2004)
Marshall Islands	...	...	...	94.9 (1998)	86.2 (2007)
Micronesia, Fed. States of	140	130	100	92.8 (1999)	92.0 (2002)
Nauru	...	...	...	...	97.4 (2007)
Palau	...	...	...	99.0 (1990)	100.0 (2007)
Papua New Guinea	390	310	230	53.2 (1996)	53.0 (2006)
Samoa	260	150	100	76.0 (1990)	80.8 (2009)
Solomon Islands	150	120	93	83.5 (1994)	70.1 (2007)
Timor-Leste	1000	610	300	25.8 (1997)	29.3 (2009)
Tonga	67	87	110	92.0 (1991)	98.0 (2002)
Tuvalu	...	...	...	100.0 (1990)	97.9 (2007)
Vanuatu	220	120	110	87.0 (1994)	74.0 (2007)
<b>Developed Member Economies<sup>a</sup></b>	<b>12</b>	<b>10</b>	<b>6</b>		
Australia	10	9	7	100.0 (1991)	100.0 (1999)
Japan	12	10	5	100.0 (1990)	100.0 (1996)
New Zealand	18	12	15	95.0 (1994)	100.0 (1995)
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>408</b>	<b>276</b>	<b>157</b>		
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>400</b>	<b>271</b>	<b>154</b>		
<b>WORLD</b>	<b>400</b>	<b>320</b>	<b>210</b>		

... = Data not available at cutoff date.

a Aggregates are derived for reporting economies only.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Millennium Indicators Database Online (UNSD 2012); for Hong Kong, China and Taipei, China: economy sources.

## Goal 5 Targets and Indicators

Table 5.2 **Target 5.B: Achieve, by 2015, universal access to reproductive health**

Regional Member	5.3 Contraceptive Prevalence Rate (% of married women 15–49 years)		5.4 Adolescent Birth Rate (per 1,000 women 15–19 years)	
	1995	Latest Year	1990	Latest Year
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	4.9 (2000)	21.8 (2010)	194.0 (1993)	90.0 (2008)
Armenia	56.0 (1991)	54.9 (2010)	74.6	28.3 (2010)
Azerbaijan	55.1 (2000)	51.1 (2006)	25.6	40.7 (2009)
Georgia	40.5 (2000)	47.3 (2005)	58.1	43.8 (2008)
Kazakhstan	59.1 (1995)	50.7 (2006)	51.0	30.7 (2008)
Kyrgyz Republic	59.5 (1997)	47.8 (2006)	45.3	31.0 (2009)
Pakistan	11.8 (1991)	27.0 (2008)	73.3 (1992)	16.1 (2007)
Tajikistan	33.9 (2000)	37.1 (2007)	40.0	27.3 (2005)
Turkmenistan	...	61.8 (2000)	24.0	21.0 (2006)
Uzbekistan	55.6 (1996)	64.9 (2006)	44.0	25.5 (2006)
<b>East Asia</b>				
China, People's Rep. of	84.6 (1992)	84.6 (2006)	16.0	6.2 (2009)
Hong Kong, China	86.2 (1992)	79.5 (2007)	5.8	3.4 (2009)
Korea, Rep. of	79.4 (1991)	80.0 (2009)	4.0	1.8 (2009)
Mongolia	57.3 (1994)	55.2 (2008)	36.4	19.8 (2008)
Taipei, China	...	...	17.0	4.0 (2009)
<b>South Asia</b>				
Bangladesh	39.9 (1991)	55.8 (2007)	179.0	133.4 (2004)
Bhutan	18.8 (1994)	65.6 (2010)	120.0 (1993)	59.0 (2009)
India	40.7 (1993)	54.8 (2008)	76.0 (1991)	38.5 (2009)
Maldives	29.0 (1991)	34.7 (2009)	106.0	18.5 (2009)
Nepal	24.1 (1991)	49.7 (2011)	101.0	81.0 (2010)
Sri Lanka	66.1 (1993)	68.0 (2007)	35.0 (1991)	24.3 (2006)
<b>Southeast Asia</b>				
Brunei Darussalam <sup>a</sup>	...	...	34.5	17.8 (2008)
Cambodia	12.6 (1995)	50.5 (2011)	90.0 (1993)	48.0 (2008)
Indonesia	49.7 (1991)	61.4 (2007)	66.2 (1992)	52.3 (2005)
Lao PDR	18.6 (1993)	38.4 (2005)	115.0 (1992)	110.0 (2005)
Malaysia	55.1 (1994)	49.0 (2004)	20.0 (1991)	14.0 (2008)
Myanmar	16.8 (1991)	41.0 (2007)	29.0	17.4 (2001)
Philippines	40.0 (1993)	50.7 (2008)	50.0 (1995)	53.0 (2006)
Singapore	65.0 (1992)	62.0 (1997)	7.5	6.3 (2008)
Thailand	73.9 (1993)	79.6 (2009)	42.3	46.7 (2009)
Viet Nam	65.0 (1994)	77.8 (2011)	38.0 (1991)	35.0 (2009)
<b>The Pacific</b>				
Cook Islands	63.2 (1996)	43.2 (1999)	82.0 (1996)	47.0 (2001)
Fiji	...	...	58.6	31.1 (2004)
Kiribati	...	36.1 (2000)	43.0	39.0 (2005)
Marshall Islands	...	44.6 (2007)	105.2 (1995)	104.8 (2006)
Micronesia, Fed. States of	...	...	54.0 (1994)	51.6 (2003)
Nauru	...	35.6 (2007)	69.6 (1992)	84.0 (2005)
Palau	...	32.8 (2003)	72.2	26.5 (2005)
Papua New Guinea	25.9 (1996)	35.7 (2006)	77.0 (1994)	70.0 (2000)
Samoa	24.5 (1998)	28.7 (2009)	25.0 (1991)	28.6 (2006)
Solomon Islands	...	34.6 (2007)	111.0	70.0 (2005)
Timor-Leste	25.1 (1991)	22.3 (2010)	85.0 (1992)	54.4 (2007)
Tonga	...	...	25.3	15.9 (2006)
Tuvalu	...	30.5 (2007)	41.3 (1991)	27.5 (2005)
Vanuatu	39.0 (1995)	38.4 (2007)	92.0 (1999)	92.0 (1999)
<b>Developed Member Economies</b>				
Australia	66.7 (1995)	72.3 (2005)	21.5	15.5 (2010)
Japan	57.9 (1990)	54.3 (2005)	3.6	4.9 (2009)
New Zealand	75.0 (1995)	75.0 (1995)	33.5	29.4 (2009)

continued

## Goal 5 Targets and Indicators

Table 5.2 **Target 5.B: Achieve, by 2015, universal access to reproductive health** (continued)

Regional Member	5.5 Antenatal Care Coverage (% of live births)		5.6 Unmet Need for Family Planning (% of women aged 15–49 years who are married or in consensual union)	
	≥ One Visit	≥ Four Visits	Earliest Year	Latest Year
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	63.4 (2010)	16.1 (2010)	...	...
Armenia	99.1 (2010)	70.9 (2005)	18.1 (2000)	19.3 (2005)
Azerbaijan	76.6 (2006)	45.2 (2006)	11.5 (2001)	15.4 (2006)
Georgia	97.6 (2010)	90.2 (2010)	23.8 (2000)	16.3 (2005)
Kazakhstan	99.9 (2006)	70.0 (1999)	16.3 (1995)	11.9 (1999)
Kyrgyz Republic	96.9 (2006)	81.1 (1997)	...	11.8 (1997)
Pakistan	60.9 (2007)	28.4 (2007)	30.5 (1991)	25.2 (2007)
Tajikistan	88.8 (2007)	49.4 (2007)	...	...
Turkmenistan	99.1 (2006)	82.8 (2000)	...	10.1 (2000)
Uzbekistan	99.0 (2006)	78.5 (1996)	...	13.7 (1996)
<b>East Asia</b>				
China, People's Rep. of	92.2 (2009)	...	3.3 (1992)	2.3 (2001)
Hong Kong, China	...	...	...	...
Korea, Rep. of	...	...	...	...
Mongolia	99.0 (2010)	81.0 (2010)	9.9 (1998)	14.4 (2008)
Taipei, China	...	...	...	...
<b>South Asia</b>				
Bangladesh	52.8 (2010)	23.4 (2010)	21.6 (1994)	16.8 (2007)
Bhutan	97.3 (2010)	77.3 (2010)	...	11.7 (2010)
India	75.2 (2008)	51.1 (2008)	20.3 (1993)	20.5 (2008)
Maldives	99.1 (2009)	85.1 (2009)	...	28.6 (2009)
Nepal	58.3 (2011)	29.4 (2006)	27.7 (1991)	24.7 (2006)
Sri Lanka	99.4 (2007)	92.5 (2007)	18.2 (2000)	7.3 (2007)
<b>Southeast Asia</b>				
Brunei Darussalam <sup>a</sup>	99.0 (2009)	...	...	...
Cambodia	89.1 (2010)	59.4 (2010)	33.0 (2000)	23.5 (2011)
Indonesia	93.3 (2007)	81.5 (2007)	17.0 (1991)	13.1 (2007)
Lao PDR	35.1 (2006)	...	39.5 (2000)	27.3 (2005)
Malaysia	78.8 (2005)	...	...	...
Myanmar	79.8 (2007)	73.4 (2007)	20.6 (1991)	19.1 (2001)
Philippines	91.1 (2008)	77.8 (2008)	30.2 (1993)	22.0 (2008)
Singapore	...	...	...	...
Thailand	99.1 (2009)	79.6 (2009)	...	3.1 (2006)
Viet Nam	90.8 (2006)	29.3 (2002)	8.4 (1997)	4.3 (2011)
<b>The Pacific</b>				
Cook Islands	100.0 (2008)	...	...	...
Fiji	100.0 (2008)	...	...	...
Kiribati	100.0 (2008)	...	...	...
Marshall Islands	81.2 (2007)	77.1 (2007)	...	8.1 (2007)
Micronesia, Fed. States of	80.0 (2008)	...	...	...
Nauru	94.5 (2007)	40.2 (2007)	...	...
Palau	100.0 (2009)	88.0 (2007)	...	...
Papua New Guinea	78.8 (2006)	54.9 (2006)	...	...
Samoa	93.0 (2009)	58.4 (2009)	...	47.7 (2009)
Solomon Islands	73.9 (2007)	64.6 (2007)	...	11.1 (2007)
Timor-Leste	84.4 (2010)	55.1 (2010)	18.3 (1991)	31.5 (2010)
Tonga	99.0 (2008)	...	...	...
Tuvalu	97.4 (2007)	67.3 (2007)	...	24.2 (2007)
Vanuatu	84.3 (2007)	...	...	...
<b>Developed Member Economies</b>				
Australia	98.3 (2008)	92.0 (2008)	...	...
Japan	...	...	...	...
New Zealand	95.0 (1994)	...	...	...

... = Data not available at cutoff date, ≥ = Greater than or equal to.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Millennium Indicators Database Online (UNSD 2012); for Taipei, China: Directorate-General of Budget, Accounting and Statistics.

## Goal 6: Combat HIV/AIDS, Malaria, and Other Diseases

### Snapshots

- In 2009, the highest prevalence of HIV among the population 15–49 years was in Papua New Guinea (PNG) (0.9%) and the Southeast Asian countries: Thailand (1.3%), Myanmar (0.6%), Cambodia (0.5%), and Malaysia (0.5%). Access to antiretroviral drugs for the population with advanced HIV infection is highest at over 50% in Brunei Darussalam, Georgia, the Lao PDR, PNG, and Thailand—the last two countries have a relatively high HIV prevalence. By 2009, HIV prevalence had declined significantly in countries where it was high in 2001. Almost all economies increased access to antiretroviral drugs to those with advanced HIV infection.
- The incidence and prevalence rates of tuberculosis and the death rates associated with it declined in most of the region's economies. However, in the Marshall Islands and some Central and West Asian economies, the incidence of tuberculosis is higher in 2010 than in 1990.
- Though the incidence of malaria remains high in many of the region's economies that have data available, the death rates associated with malaria in 2008 were generally low, at less than 7 per 100,000 population, except in Myanmar and the Pacific.

### Introduction

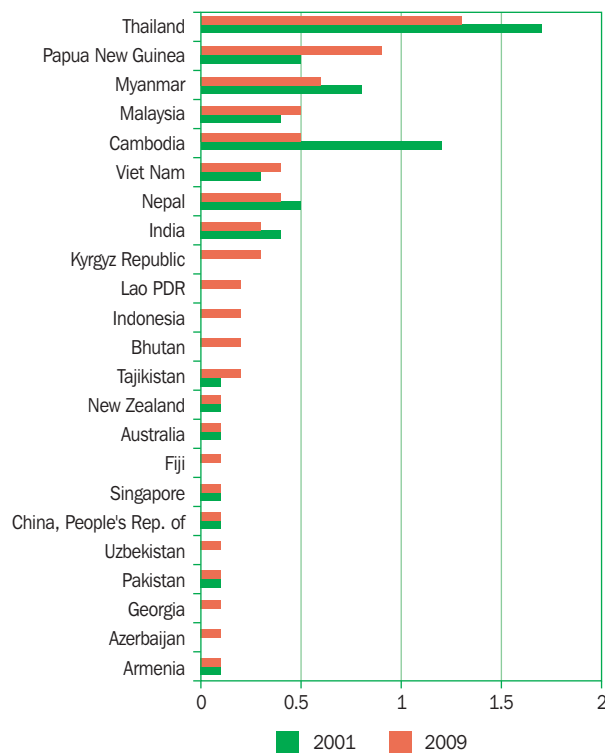
Goal 6 has three targets:

- 6.A *Have halted by 2015 and begun to reverse the spread of HIV/AIDS.* This is targeted at the 15–24 age group, but most economies have comparable data on HIV prevalence only for people aged 15–49 years.
- 6.B *Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.* No economy is yet providing universal access and the availability of data to measure the progress has been improving.
- 6.B *Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.* Tuberculosis is one of the “other major diseases” and several indicators are available for this disease.

### Key Trends

While HIV has been generally on the uptrend from 2001 to 2009 in most of the reporting economies, major achievements in reducing the prevalence of the disease are also evident in some economies (Figure 6.1). PNG showed the largest increase in HIV prevalence, measured as a percentage of the population 15–49 years, at 0.40 percentage points. However, HIV prevalence declined in five economies, with the biggest cut in Cambodia, at 0.70 percentage points followed by Thailand, at 0.40 percentage points, then India, Myanmar, and Nepal.

Figure 6.1 HIV Prevalence (Percent of Population 15–49 Years), 2001 and 2009



Source: Table 6.1.

In 2001, the prevalence of HIV was highest in Cambodia, Thailand, and Myanmar, where HIV prevalence had declined but remained high. In 2009, Cambodia, Malaysia, Myanmar, PNG, and Thailand had prevalence rates greater than 0.5% in the population 15–49 years. Economies with large populations, such as the PRC, India, Pakistan, and Viet Nam, all had rates below 0.5%.

**Almost all economies have substantially increased access to antiretroviral drugs to those with advanced HIV infection** (Figure 6.2). Only Fiji and the Maldives report less access in 2010 than in 2009; Bangladesh, Indonesia, and PNG report no change.

In 2009, over 90% of Cambodia's population with advanced HIV had access to antiretroviral drugs; in Thailand, the share exceeded 65%. The greater access to antiretroviral drugs may partly explain the large decreases in their HIV prevalence from 1990 levels.

There were also significant improvements in access to antiretroviral drugs for those with advanced HIV infection in Azerbaijan, Mongolia, and the Philippines.

**Incidence rates of tuberculosis in most countries in the region declined or stabilized between 1990 or 2010.**

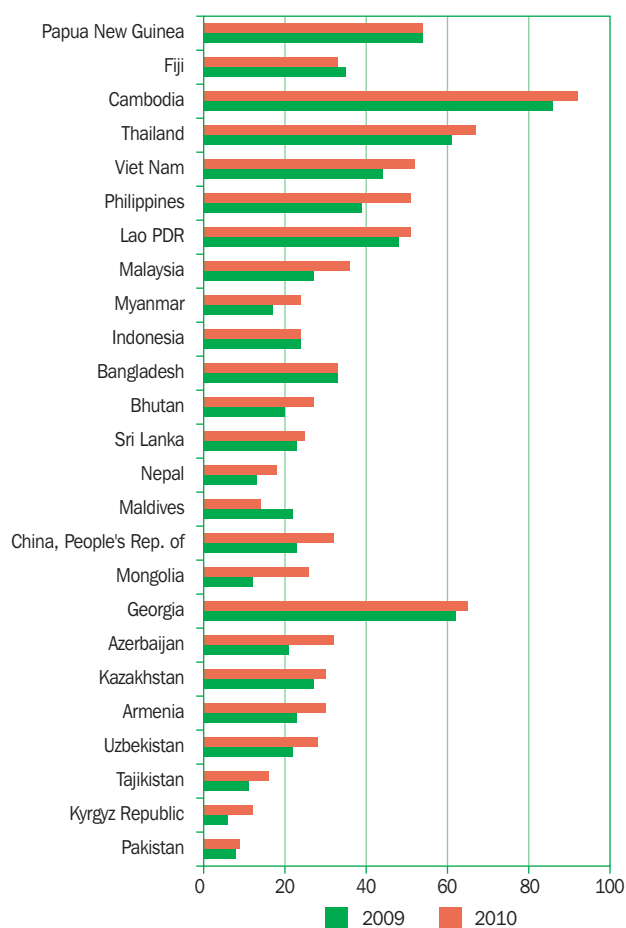
The incidence of tuberculosis in 37 of the reporting 47 economies, including those with large populations, have either declined or stabilized since the 1990, but it increased in five economies in Central and West Asia, one in Southeast Asia, and four in the Pacific. The total population with tuberculosis detected and cured through the Directly Observed Treatment Short (DOTS) course has increased since 1995. The intensive efforts to implement the DOTS program has made progress against the disease.

**Tuberculosis prevalence rates are falling in most economies in the region.**

Cambodia, Mongolia, Tuvalu, and the Philippines, the economies with the highest prevalence in 1990, showed the largest decreases; their prevalence rates decreased by more than 500 persons per 100,000 population between 1990 and 2010 (Figures 6.3–6.5). However, Kiribati, the Marshall Islands, and Tajikistan, which had relatively low tuberculosis prevalences in 1990, recorded increases in 2010 of more than 200 persons per 100,000 population.

A regional downtrend is seen in the death rates associated with tuberculosis, with the highest reductions in Cambodia and Myanmar in Southeast Asia and Timor-Leste and Tuvalu in the Pacific. However, Cambodia, which had the highest death rate in 1990, still had a relatively high rate in 2010.

Figure 6.2 **Proportion of Population with Advanced HIV Infection with Access to Antiretroviral Drugs, 2009 and 2010**



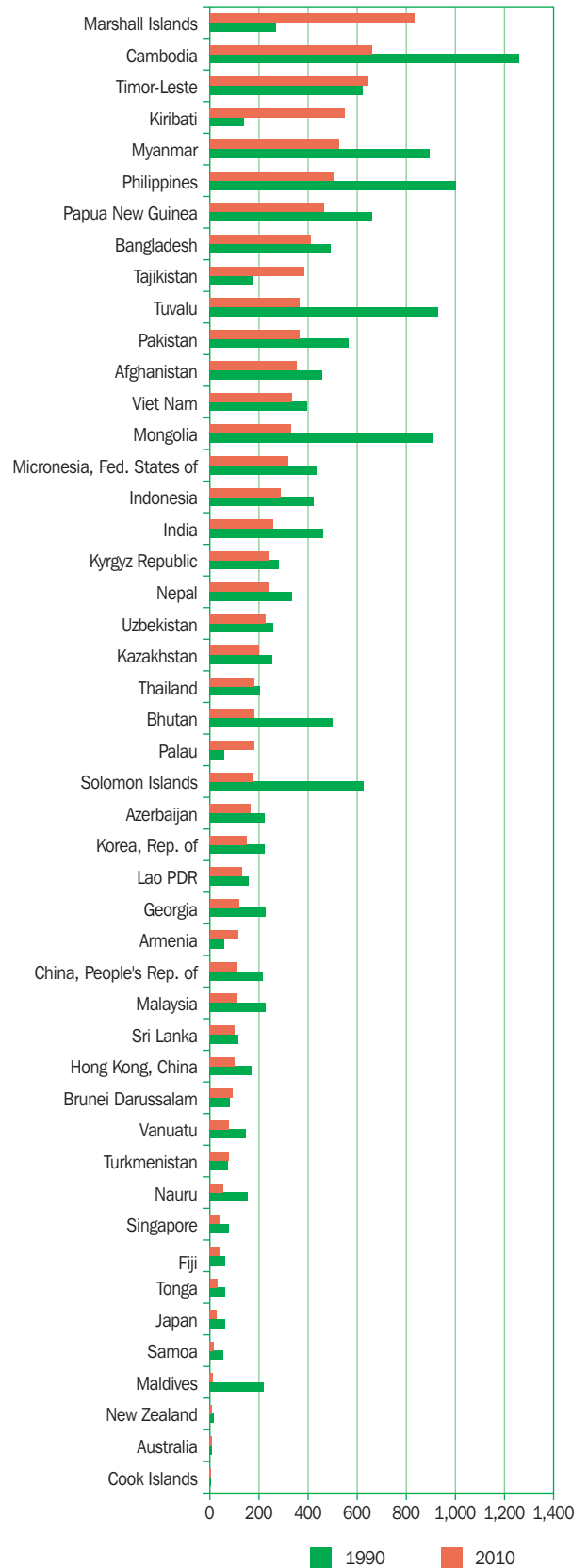
Source: Table 6.1.

Figure 6.3 Change in Tuberculosis Incidence Rates, 1990 and 2010



Source: Table 6.2.

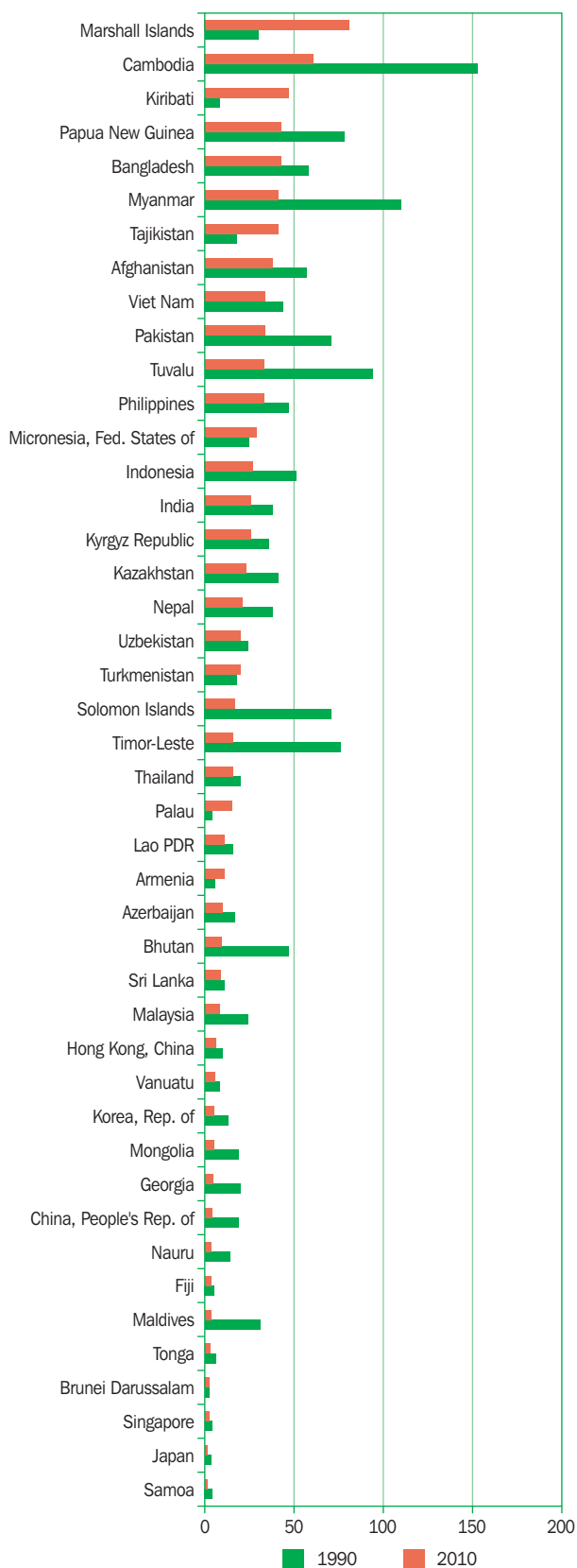
Figure 6.4 Prevalence of Tuberculosis, per 100,000 Population, 1990 and 2010



Source: Table 6.2.



Figure 6.5 **Death Rates Associated with Tuberculosis, per 100,000 Population, 1990 and 2010**



Source: Table 6.2.

Though the incidence of malaria remains high in many economies in the region, the associated death rates are generally low, at less than 7 per 100,000 population (Box 6.1). In Central and West Asia, five economies did not report any malaria incidence in 2008; however, the incidence remains high in Afghanistan and Pakistan. Countries in East Asia reported incidences below 10 per 100,000 people, and no mortality during the year. The malaria incidence is low in 8 reporting countries, with less than 100 new cases per 100,000 population. Ten economies reported a high incidence of 1,000 or more per 100,000 population. Malaria remains a threat, in terms of incidence, mainly in Afghanistan, Cambodia, Southeast Asia (Cambodia and Indonesia), South Asia (Bangladesh and India) and the Pacific. Except for Myanmar and the Pacific, death rates associated with malaria are reported at 7 or less per 100,000 population.

Coverage of populations with malaria prevention and control measures continues to increase, bringing about a further decline in the number of malaria cases and deaths. International funding has continued to rise, enabling countries where malaria is endemic to greatly improve access to insecticide-treated mosquito nets. Further, several diagnostic tests and artemisinin-based combination therapies have also been made available (UN 2012).

Box 6.1 **Incidence of Malaria, 2008** (per 100,000 population)

**Less than 1**

Armenia	0	Turkmenistan	0
Georgia	0	Uzbekistan	0
Kyrgyz Republic	0		

**1–99**

Azerbaijan	1	Sri Lanka	21
China, People's Rep. of	3	Viet Nam	55
Korea, Rep. of	8	Malaysia	75
Tajikistan	9	Philippines	96

**100–999**

Bhutan	100	Lao PDR	327
Nepal	103	Pakistan	881
Thailand	322		

**1000 or more**

India	1,124	Vanuatu	6,036
Bangladesh	1,510	Myanmar	7,943
Indonesia	1,645	Solomon Islands	13,718
Cambodia	1,798	Papua New Guinea	18,012
Afghanistan	2,428	Timor-Leste	46,380

Source: Table 6.2.

## Data Limitations and Comparability

Data for estimating trends in HIV/AIDS, malaria, and tuberculosis are difficult to compare because of the many varied practices and methods, changing processes, and assumptions used to arrive at the desired data. This results in widening data gaps and more volatile data, and difficulty reconciling data and applying corrective policies. Data may not be comparable as a result.

For HIV/AIDS, the quality of data varies among countries, with the range of uncertainty depending on the actual HIV prevalence, concentration of HIV epidemic levels, and the number of steps or assumptions used to arrive at the estimate. Data on the prevalence of HIV is only available until 2009, with a 3-year lag in reported data, which makes it difficult to assess the current progress of the disease.

The proportion of population with comprehensive correct knowledge of HIV/AIDS (Table 6.1) is gender-related. However, the data are not comparable across the years due to the variation in the years for which data are observed. HIV trends by gender cannot be determined for a specific year, and there are fewer data points for males than females. The earliest data for both female and males are for 2005, and the latest year varies for both.

Estimating the number of people receiving or having access to antiretroviral therapy is difficult because there are no established regular reporting systems on patients who underwent treatment for the first time, received or discontinued treatment, were not followed up, or died. Hence, data may be underreported. Data for 2009 and 2010 are not comparable to that of 2004 because of the revised guidelines for estimating the number of people receiving antiretroviral therapy.

Malaria cases declined substantially in all the years, but the accuracy of the data is uncertain. Malaria estimates are mostly based on reporting systems that are not firmly established, tested, or accepted. Health facilities are therefore unable to report a complete, accurate, and scientific estimate of the actual counts of malaria cases. The latest available data on the incidence and death rates of malaria are for 2008 which may not be applicable to the current situation.

The DOTS course is the internationally recommended strategy for controlling tuberculosis, and has been recognized as highly efficient and cost effective. Data on tuberculosis cases treated through DOTS and other strategies are not comparable because the data are mostly sourced from administrative records of health agencies or services, which may not have established reporting systems (similar to the problem for estimating malaria cases). These agencies may not have established patterns of measuring accurate information, which may result in the delay of reporting data. Using 2011 as a reference year, the data for DOTS tuberculosis cases are available for 2010 (a 1-year lag in reported data), while the data for cases cured through DOTS are for 2009 (a 2-year lag).

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## Goal 6 Targets and Indicators

Table 6.1 **Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS and Target 6.B: Achieve by 2010, universal access to treatment for HIV/AIDS for all those who need it**

Regional Member	6.1 HIV Prevalence <sup>a</sup>		6.3 Proportion of Population Aged 15–24 Years with Comprehensive Correct Knowledge of HIV/AIDS (%)		6.5 Proportion of Population with Advanced HIV infection with Access to Antiretroviral Drugs (%)		
	(% of population 15–49 years)						
	2001	2009	Female	Male	2004 <sup>b</sup>	2009	2010
<b>Developing Member Economies</b>							
<b>Central and West Asia</b>							
Afghanistan	...	...	...	...	...	...	...
Armenia	0.1	0.1	22.6 (2005)	15.1 (2005)	8 (2006)	23	30
Azerbaijan	0.0	0.1	4.8 (2006)	5.3 (2006)	1 (2006)	21	32
Georgia	0.0	0.1	15.0 (2005)	...	16	62	65
Kazakhstan	...	...	22.4 (2006)	...	1	27	30
Kyrgyz Republic	0.0	0.3	...	...	9 (2005)	6	12
Pakistan	0.1	0.1	3.4 (2007)	...	1	8	9
Tajikistan	0.1	0.2	13.9 (2010)	12.8 (2010)	2 (2006)	11	16
Turkmenistan	...	...	4.8 (2006)	...	...	...	...
Uzbekistan	0.0	0.1	31.0 (2006)	...	30 (2006)	22	28
<b>East Asia</b>							
China, People's Rep. of	0.1	0.1	...	...	19 (2006)	23	32
Hong Kong, China	...	...	...	...	...	...	...
Korea, Rep. of	0.0	0.0	...	...	...	...	...
Mongolia	0.0	0.0	31.4 (2005)	...	3 (2006)	12	26
Taipei, China	...	...	...	...	...	...	...
<b>South Asia</b>							
Bangladesh	0.0	0.0	8.0 (2007)	17.9 (2007)	1	33	33
Bhutan	0.0	0.2	21.0 (2010)	...	10	20	27
India	0.4	0.3	19.9 (2006)	36.1 (2006)	...	...	...
Maldives	0.0	0.0	35.0 (2009)	...	6 (2006)	22	14
Nepal	0.5	0.4	27.6 (2006)	43.6 (2006)	2 (2006)	13	18
Sri Lanka	0.0	0.0	...	...	5	23	25
<b>Southeast Asia</b>							
Brunei Darussalam <sup>c</sup>	...	...	...	...	...	...	...
Cambodia	1.2	0.5	50.1 (2005)	45.2 (2005)	...	86	92
Indonesia	0.0	0.2	9.5 (2007)	14.7 (2007)	12	24	24
Lao PDR	0.0	0.2	...	...	26	48	51
Malaysia	0.4	0.5	...	...	12	27	36
Myanmar	0.8	0.6	31.8 (2010)	...	2	17	24
Philippines	0.0	0.0	20.7 (2008)	...	10	39	51
Singapore	0.1	0.1	...	...	...	...	...
Thailand	1.7	1.3	46.1 (2006)	...	17	61	67
Viet Nam	0.3	0.4	43.6 (2006)	...	1	44	52
<b>The Pacific</b>							
Cook Islands	...	...	...	...	...	...	...
Fiji	0.0	0.1	...	...	22 (2007)	35	33
Kiribati	...	...	...	...	...	...	...
Marshall Islands	...	...	26.6 (2007)	39.4 (2007)	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...
Nauru	...	...	13.3 (2007)	9.6 (2007)	...	...	...
Palau	...	...	...	...	...	...	...
Papua New Guinea	0.5	0.9	...	...	3	54	54
Samoa	...	...	3.0 (2009)	5.8 (2009)	...	...	...
Solomon Islands	...	...	29.3 (2007)	35.1 (2007)	...	...	...
Timor-Leste	...	...	12.2 (2010)	19.7 (2010)	...	...	...
Tonga	...	...	...	...	...	...	...
Tuvalu	...	...	39.4 (2007)	60.7 (2007)	...	...	...
Vanuatu	...	...	15.4 (2007)	...	...	...	...
<b>Developed Member Economies</b>							
Australia	0.1	0.1	...	...	...	...	...
Japan	0.0	0.0	...	...	...	...	...
New Zealand	0.1	0.1	...	...	...	...	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, HIV = human immunodeficiency virus, AIDS = Acquired immunodeficiency syndrome.

a The value "0.0" refers to < 0.1.

b Data in 2004 may not be consistent with the later years because of the change in the WHO guidelines for treatment of adults and adolescents with HIV, including pregnant women in 2009. As a consequence, the number of people needing the antiretroviral therapy expanded.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Millennium Indicators Database Online (UNSD 2012) and World Health Organization Online (WHO 2012).

## Goal 6 Targets and Indicators

Table 6.2 **Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases**

Regional Member	6.6 Incidence of Malaria	6.6 Death Rates Associated with Malaria	6.9 Incidence of Tuberculosis		6.9 Prevalence of Tuberculosis	
	(per 100,000 population)	(per 100,000 population)	(per 100,000 population)		(per 100,000 population)	
	2008	2008	1990	2010	1990	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	2428	0	189	189	457	352
Armenia	0	0	33	73	56	114
Azerbaijan	1	0	110	110	222	166
Georgia	0	0	107	107	227	118
Kazakhstan <sup>a</sup>	...	...	139	151	255	198
Kyrgyz Republic	0	0	143	159	280	243
Pakistan	881	1	231	231	565	364
Tajikistan	9	0	93	206	172	382
Turkmenistan	0	0	64	66	73	77
Uzbekistan	0	0	128	128	256	227
<b>East Asia</b>						
China, People's Rep. of	3	0	153	78	215	108
Hong Kong, China <sup>a</sup>	...	...	129	80	169	100
Korea, Rep. of	8	0	163	97	223	151
Mongolia <sup>a</sup>	...	...	405	224	910	331
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	1510	3	225	225	493	411
Bhutan	100	0	308	151	500	181
India	1124	2	216	185	459	256
Maldives <sup>a</sup>	...	...	150	36	220	13
Nepal	103	0	163	163	335	238
Sri Lanka	21	0	66	66	114	101
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a,b</sup>	...	...	66	68	81	91
Cambodia	1798	4	574	437	1258	660
Indonesia	1645	2	189	189	423	289
Lao PDR	327	1	88	90	157	130
Malaysia	75	0	127	82	227	107
Myanmar	7943	17	393	384	894	525
Philippines	96	0	393	275	1003	502
Singapore <sup>a</sup>	...	...	62	35	77	44
Thailand	322	0	137	137	204	182
Viet Nam	55	0	204	199	396	334
<b>The Pacific</b>						
Cook Islands <sup>a</sup>	...	...	1	4	3	6
Fiji	...	...	43	27	63	40
Kiribati <sup>a</sup>	...	...	116	370	138	550
Marshall Islands <sup>a</sup>	...	...	137	502	269	831
Micronesia, Fed. States of <sup>a</sup>	...	...	379	206	433	320
Nauru <sup>a</sup>	...	...	102	40	155	52
Palau <sup>a</sup>	...	...	45	124	58	179
Papua New Guinea	18012	36	303	303	659	465
Samoa <sup>a</sup>	...	...	36	11	52	16
Solomon Islands	13718	19	312	108	625	178
Timor-Leste	46380	108	500	498	620	643
Tonga <sup>a</sup>	...	...	38	17	63	29
Tuvalu <sup>a</sup>	...	...	536	237	930	366
Vanuatu	6036	7	127	69	145	78
<b>Developed Member Economies</b>						
Australia <sup>a</sup>	...	...	7	6	8	8
Japan <sup>a</sup>	...	...	49	21	63	27
New Zealand <sup>a</sup>	...	...	11	8	14	9

continued

## Goal 6 Targets and Indicators

Table 6.2 **Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases** (continued)

Regional Member	6.9 Death Rates Associated with Tuberculosis (per 100,000 population)		6.10 Proportion of Tuberculosis Cases under DOTS (%)			
	1990	2010	Detected		Cured	
			1995	2010	1995	2009
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	57	38	3 (1997)	47	45 (1997)	86
Armenia	6	11	77	62	55	73
Azerbaijan	17	10	19	63	65	62
Georgia	20	5	30	100	58	75
Kazakhstan <sup>a</sup>	41	23	51	82	74 (1997)	62
Kyrgyz Republic	36	26	52	66	50 (1996)	82
Pakistan	71	34	5	65	70	91
Tajikistan	18	41	38	44	...	...
Turkmenistan	18	20	88	96	73	84
Uzbekistan	24	20	34	48	78	81
<b>East Asia</b>						
China, People's Rep. of	19	4	33	87	93	95
Hong Kong, China <sup>a</sup>	10	6	87	87	85 (1998)	70
Korea, Rep. of	13	5	92	90	76	83
Mongolia <sup>a</sup>	19	5	38	72	74	88
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	58	43	21	46	71	92
Bhutan	47	9	81	120	97	92
India	38	26	58	59	25	88
Maldives <sup>a</sup>	31	3	88	83	97	47
Nepal	38	21	56	72	73	90
Sri Lanka	11	9	49	69	79	86
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a,b</sup>	3	3	82 (1997)	88	85 (1998)	71
Cambodia	153	61	25	65	91	95
Indonesia	51	27	9	66	91	91
Lao PDR	16	11	20	72	70	93
Malaysia	24	9	53	80	69	78
Myanmar	110	41	11	71	67	85
Philippines	47	33	48	65	60	89
Singapore <sup>a</sup>	4	2	89	87	86	82
Thailand	20	16	56	70	64	86
Viet Nam	44	34	37	54	89	92
<b>The Pacific</b>						
Cook Islands <sup>a</sup>	0	0	58	0	100	50 (2008)
Fiji	5	4	76	82	86	94
Kiribati <sup>a</sup>	9	47	71 (1996)	78	87	97
Marshall Islands <sup>a</sup>	30	81	57 (1996)	70	25	84
Micronesia, Fed. States of <sup>a</sup>	25	29	49	70	80	88
Nauru <sup>a</sup>	14	4	62 (1999)	73	83 (1998)	100 (2008)
Palau <sup>a</sup>	4	15	75	75	67	75
Papua New Guinea	78	43	56	70	56	72
Samoa <sup>a</sup>	4	1	90	71	80	90
Solomon Islands	71	17	41	58	65	88
Timor-Leste	76	16	62 (2002)	87 (2009)	73 (2001)	85 (2008)
Tonga <sup>a</sup>	6	3	63	63	75	83
Tuvalu <sup>a</sup>	94	33	89	60	100 (1999)	88
Vanuatu	8	6	75	70	85	96
<b>Developed Member Economies</b>						
Australia <sup>a</sup>	0	0	89	84	55 (1996)	80
Japan <sup>a</sup>	4	2	87	84	80 (1998)	52
New Zealand <sup>a</sup>	0	0	96	90	30 (2000)	76

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed, DOTS = directly observed treatment short course.

a The indicators incidence and death rates associated with malaria, as defined for the global monitoring, do not apply to the circumstances of the country.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Millennium Indicators Database Online (UNSD 2012) and World Health Organization Database Online (WHO 2012).

## Goal 7: Ensure Environmental Sustainability

### Snapshots

- Deforestation continues to threaten the region. Between 1990 and 2010, the land area covered by forest declined in 23 economies in Asia and the Pacific region, with the largest decreases in Cambodia (16%), Timor-Leste (15%), Indonesia (13%), and Myanmar (11%). Some, however—including the People's Republic of China (PRC); Samoa; Taipei,China; and Viet Nam—increased their forest cover during the period, due to large-scale afforestation programs.
- Per capita carbon dioxide (CO<sub>2</sub>) emissions in the region were highest in Australia, Brunei Darussalam, the Republic of Korea, Nauru, and Palau. Singapore made a notable reduction in its per capita CO<sub>2</sub> emissions, from 15.6 tons in 1990 to 7.0 in 2009, but this is still considered high compared to the world's developing regions rate of 3.0 tons (UN 2012).
- More than half of the reporting economies have either reached or are on track in achieving the target of halving the proportion of population without access to improved water sources. However, about half of the economies in the region are not expected to achieve the target for improved sanitation.
- For economies where data are available, the ratio of slum population to the whole urban population declined during the 1990–2009 period. In 2009, only the South Asia subregion's average slum population was higher than the developing world's average.

### Introduction

Goal 7 has four targets:

- 7.A *Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources.*
- 7.B *Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.*
- 7.C *Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.*
- 7.D *By 2020, have achieved a significant improvement in the lives of at least 100 million slum dwellers.*

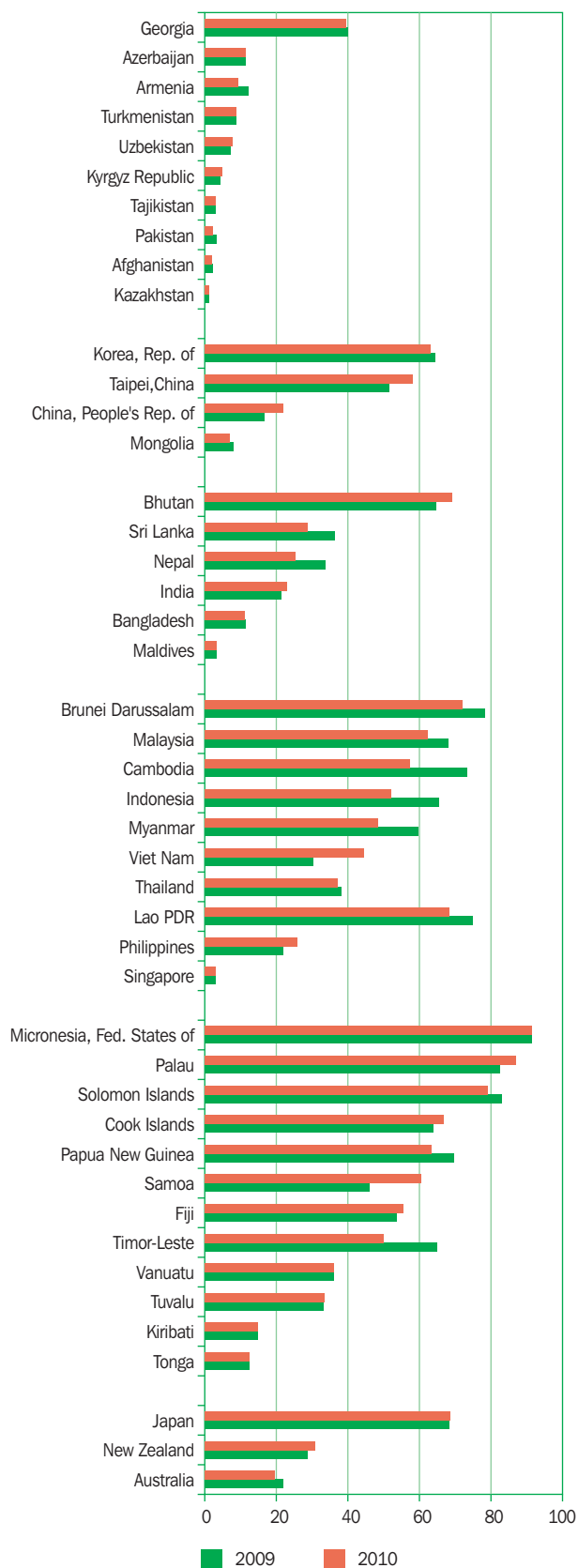
### Key Trends

#### **Deforestation continues to threaten the region.**

Economies in the Southeast Asian region recorded the highest percentage losses in forest land area during 1990–2010 (Figure 7.1), with 23 economies recording losses of forest area during 1990–2010. Cambodia reported the largest net loss of forest area, at 16 percentage points. Forest area in Indonesia, Myanmar, and Timor-Leste also decreased substantially, by 11–15 percentage points. Conversely, the PRC; Samoa; Taipei,China; and Viet Nam reported gains, with more than 5% of their land converted to forest land.

Deforestation, including uncontrolled conversion of forest to agricultural land, continues at an alarmingly high rate in many economies. About 13 million hectares of forest were converted to other uses—largely for agriculture—in 1990–2010 (FAO 2010). Most countries that experienced rapid rates of deforestation also expanded their agricultural land the most (Regional Table 6.5). Urbanization raises consumption levels and leads to an increase in demand for agricultural products. Large industrial farms have expanded further into remaining forests to supply both the domestic urban population and the growing demand in the international market (DeFries et al. 2010).

Figure 7.1 Percentage of Land Area Covered by Forest, 1990 and 2010



Source: Table 7.1.

In some economies, population pressure and slash-and-burn agriculture have led to the conversion of forest lands to upland agricultural use. For some developing economies, forests are significant sources of livelihood and foreign exchange. Deforestation in Indonesia and Malaysia is widely documented to have been used for producing palm oil for export (World Growth 2011). Australia also reported a net loss during 1990–2010, due to severe drought and forest fires (FAO 2010).

Still, a few economies managed to expand their forest cover during 1990–2010. The PRC, India, and Viet Nam implemented large-scale afforestation programs (UN 2012).

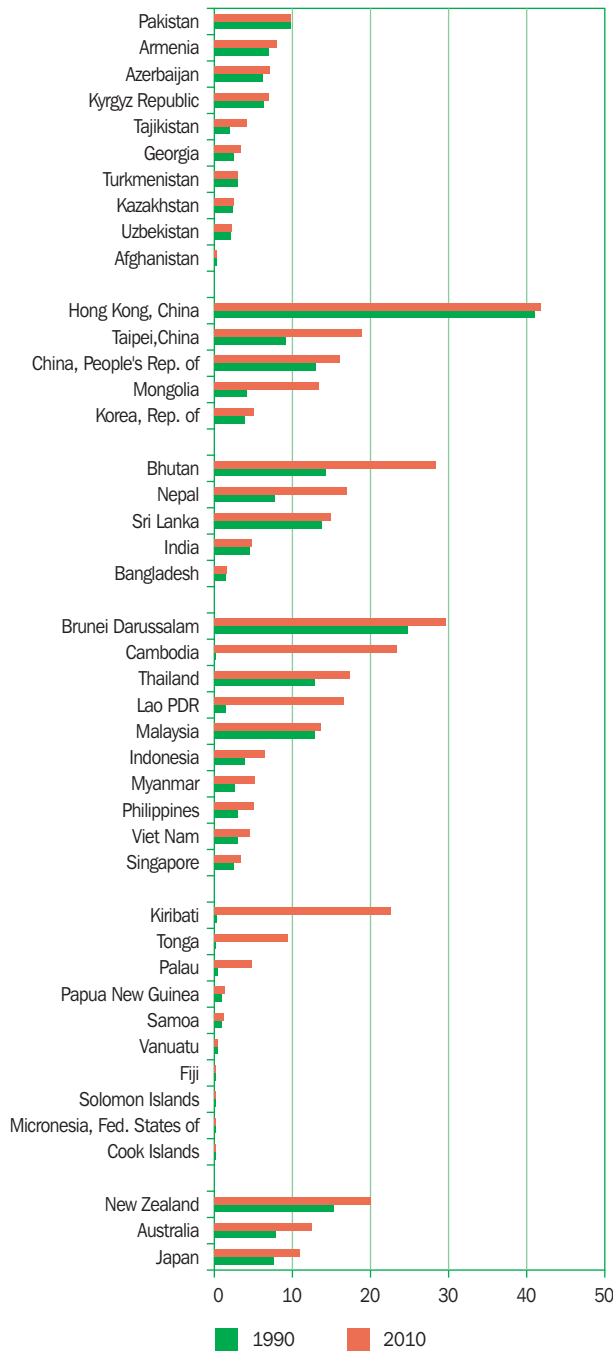
**The region has made significant progress in protecting its terrestrial and marine areas.** As shown in Figure 7.2, 40 economies in the region have reported increases in their protected areas; during 1990–2010, 24 economies increased the share of their protected area by 1%–9% of their total land. Protected areas in Bhutan; Cambodia; Kiribati; the Lao PDR; and Taipei, China accounted for a large increase in the region, with gains of 10–23 percentage points from their 1990 levels. However, some economies in the Pacific and Central and West Asia had almost no increase in their protected areas.

Despite the overall increase in protected ecosystem area, biodiversity is still declining. Global fisheries are also declining, despite action to protect coastal resources. Global production of marine capture fisheries has declined from 86.3 million tons in 1996 to 79.5 million tons in 2008, with large fluctuations between years (UN 2011). In response to the huge public support in protecting marine environments, the Australian government announced the establishment of a national system of marine sanctuaries that will provide greater protection to marine wildlife from industrial development (WWF 2011).

Together, urbanization and increasing coastal population have degraded coastal areas and increased pressures on marine resources (ADB 2009). Economic activities tend to be concentrated in coastal megacities, thus depleting the proportion of protected marine areas.

**Per capita emissions of CO<sub>2</sub> increased.** Figure 7.3 illustrates the percentage change in per capita emissions of CO<sub>2</sub> between 1990 and 2009. Of the 36 reporting economies, 7 had reduced their per capita emissions from 1990 levels. Notable is the reduction in per capita CO<sub>2</sub> emissions in Singapore from 15.6 tons in 1990 to 7.0 tons in 2009 which is still considered high compared to the 3.0 ton rate of the developing world (UN 2012). Based on its Green Plan

Figure 7.2 Percentage of Protected Terrestrial and Marine Areas, 1990 and 2010



Source: Table 7.2.

2012, Singapore had phased out leaded petroleum use by motor cars in 1998 and has reduced the permissible sulfur content in diesel, which may have paved the way for the reduction of their CO<sub>2</sub> emissions.

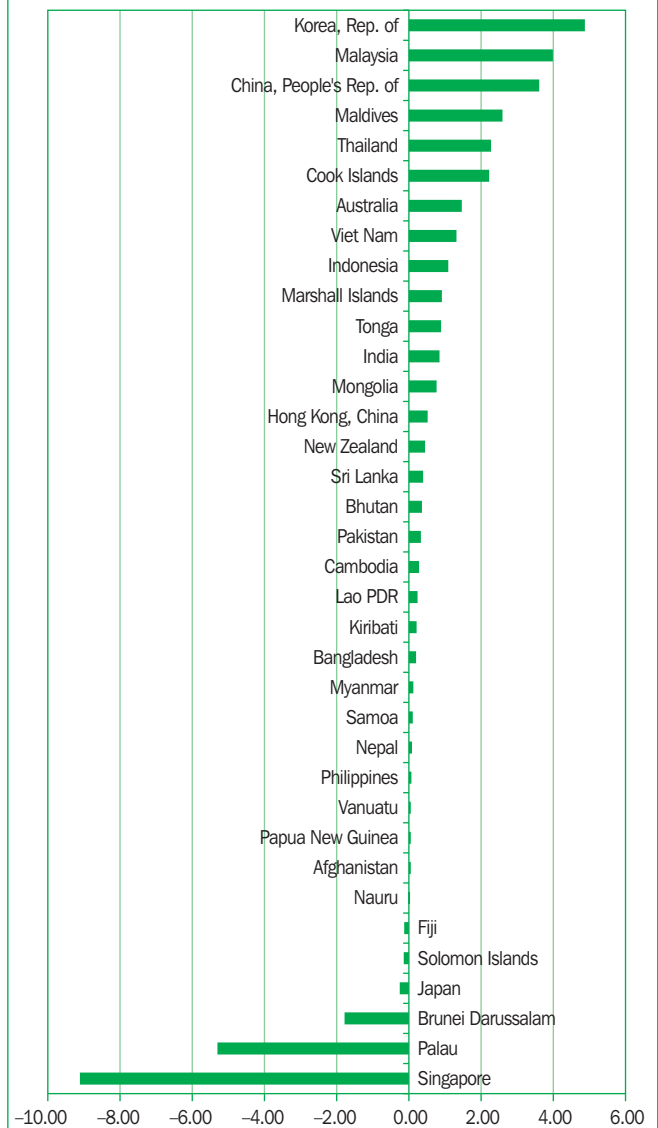
Japan's per capita CO<sub>2</sub> emission also decreased, even though its road density is the 2nd highest in the

region. The decline in Japan's per capita CO<sub>2</sub> emission may be partly due to the promotion and use of hybrid vehicles that emit low levels of CO<sub>2</sub> (MOFA 2008).

Per capita CO<sub>2</sub> emissions in the region are highest in Australia, Brunei Darussalam, the Republic of Korea, Nauru, and Palau. However, the CO<sub>2</sub> emissions of Brunei Darussalam and Palau had declined in 2009 relative to their 1990 levels, by 2 and 5 percentage points, respectively.

The Republic of Korea had the highest increase in per capita CO<sub>2</sub> emissions, growing by 5% from 1990 levels. In Australia, the PRC, the Cook Islands, Indonesia, Malaysia, the Maldives, Thailand, and Viet Nam, per capita CO<sub>2</sub> emissions increased by more than 1 percentage point

Figure 7.3 Percentage Change of Per Capita Emissions of Carbon Dioxide, 2009 compared with 1990



Source: Table 7.2.



from their 1990 levels. Except for Australia, all other economies that had increased CO<sub>2</sub> emissions had very low emission levels in 1990.

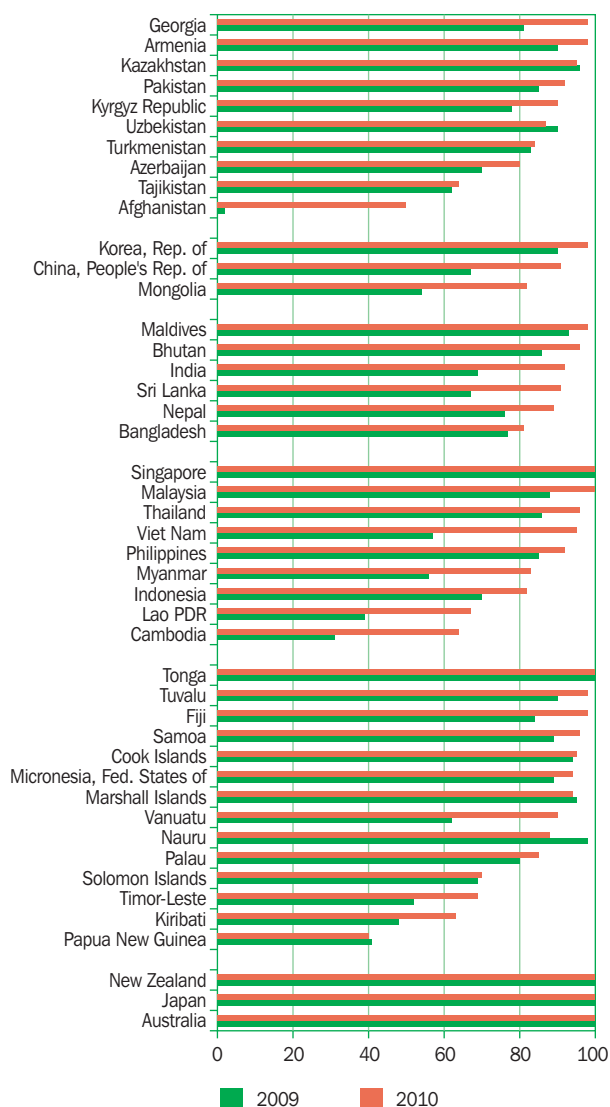
### Half of the reporting economies have reached the target for providing households with improved drinking water sources.

Of the 42 reporting ADB developing economies, 21 managed to achieve the target of halving the population without access to improved drinking water sources ahead of 2015 schedule (Figure 7.4). Only a few economies in Central and West Asia, Southeast Asia and the Pacific have less than 80% coverage. Afghanistan, Cambodia, the PRC, India, the Lao PDR, Mongolia, Myanmar, Sri Lanka, Vanuatu, and Viet Nam, accounted for large increases in

their share of populations with improved drinking water, ranging from gains of 23 to 46 percentage points from their 1990 levels. Cambodia, which had the lowest proportion in Southeast Asia in 1990, made significant progress by increasing the coverage to 64%—a 33 percentage point increase. Afghanistan also improved remarkably, from 2% coverage in 1990 to 50% in 2010.

While coverage of improved water supply sources advanced in most economies in the region, five were regressing: Kazakhstan, the Marshall Islands, Nauru, Papua New Guinea, and Uzbekistan. In Papua New Guinea, 60% of the population still does not have access to improved water supplies.

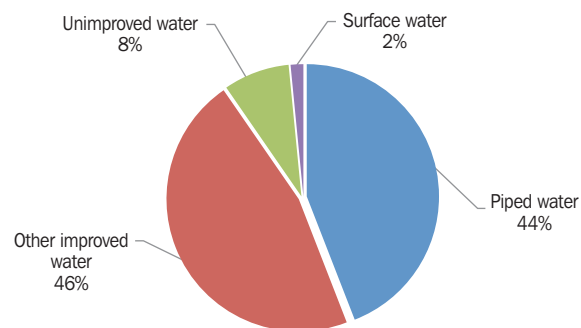
Figure 7.4 Proportion of the Population Using Improved Drinking Water Sources, 1990 (or Earliest Year) and 2010 (or Latest Year)



Source: Table 7.3.

Figure 7.5 illustrates the proportion of population with access to improved water sources. About 90% of the population in Asia and the Pacific used either piped water (44%) or other improved water sources (46%) as their source of drinking water. The remaining 10% sourced drinking water from unprotected dug wells; unprotected springs; water delivered by cart or tanker; and water collected directly from rivers, lakes, ponds, irrigation channels, and other surface sources. Water from such sources can have a direct impact on health and could spread diseases such as diarrhea, hence it is vital for developing countries to provide clean drinking water to their people.

Figure 7.5 Proportion of the Population Using Different Sources of Drinking Water, 2010



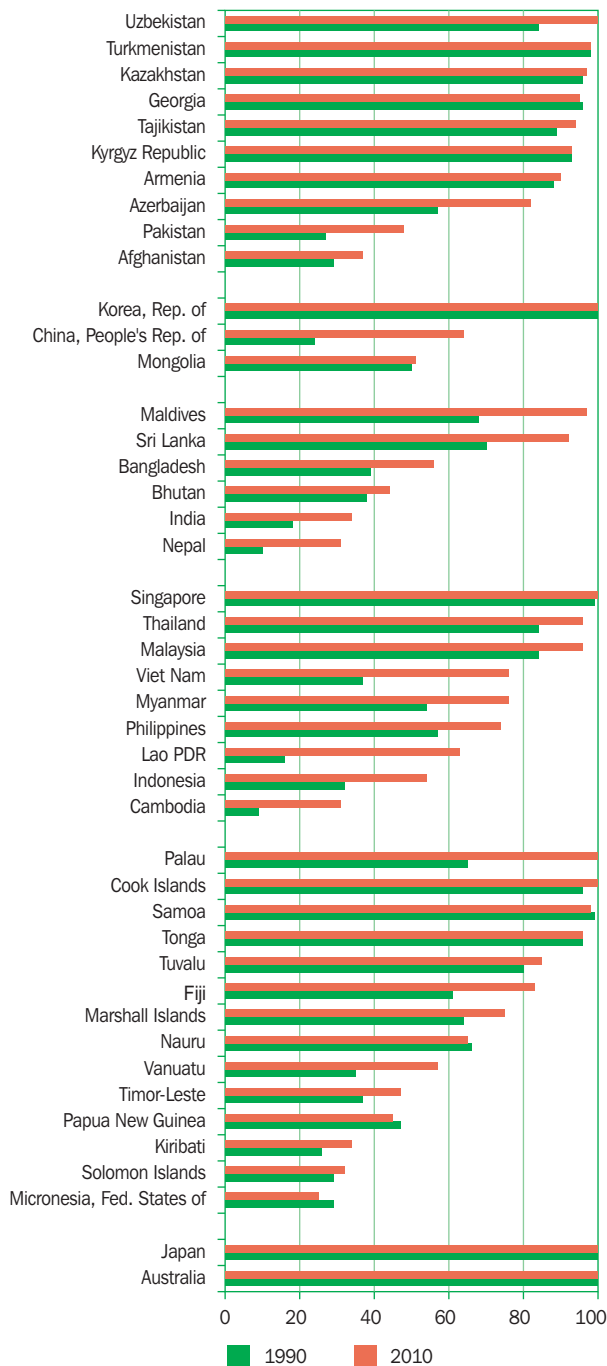
Source: WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.

**The proportion of population using improved sanitation facilities increased in most of the region's economies.**

Since 1990, 16 of the 42 reporting ADB developing members have achieved the target of halving the population using unimproved sanitation facilities (Figure 7.6). Palau and Uzbekistan have successfully achieved 100% improved sanitation coverage, accounting for an increase of 35 and

16 percentage points, respectively. In 2010, 64% of the PRC's population have access to improved sanitation—an increase of 40 percentage points and an impressive gain from the very low proportion in 1990. Despite the gains, five economies in the Pacific, three in South Asia, two in Central and West Asia, and Cambodia in Southeast Asia have less than 50% of their populations using improved sanitation facilities.

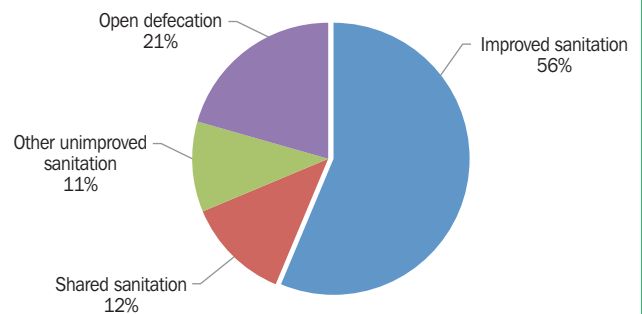
Figure 7.6 Proportion of the Population Using Improved Sanitation Facilities, 1990 (or Earliest Year) and 2010 (or Latest Year)



Source: Table 7.3.

In 2010, 56% of the region's population used improved sanitation facilities,<sup>1</sup> 12% used shared facilities, and 11% used other unimproved sanitation facilities (Figure 7.7). The remaining 21% use open spaces such as fields, bushes, and bodies of water (WHO and UNICEF 2012).

Figure 7.7 Proportion of the Population Using Different Types of Sanitation Facilities, 2010



Source: WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.

**The gap in providing access to improved sanitation facilities between rural and urban areas remains wide.**

The disparities in rural and urban sanitation are very pronounced in the Pacific region (Figure 7.8). The largest gap is in the Solomon Islands, where the number of people in rural areas without improved sanitation facilities is five times greater than in urban areas. The PRC, India, Indonesia, and Pakistan, four of the most populous economies in the region, also exhibit large disparities between rural and urban areas in providing basic sanitation. Other economies with large urban–rural disparities in access to improved sanitation facilities are Afghanistan, Mongolia, Bhutan, India, and Nepal, in South Asia; and Cambodia, Indonesia, the Lao PDR,

1 “Improved sanitation facilities” include flush/pour flush toilets or latrines connected to a sewer, septic tank, or pit; ventilated improved pit latrines; pit latrines with a slab or platform that covers the pit entirely, except for the drop hole; and composting toilets/latrines.

and Viet Nam in Southeast Asia. The Kyrgyz Republic, Malaysia, the Maldives, and Tajikistan were able to bridge the gap between rural and urban areas in providing access to improved sanitation facilities.

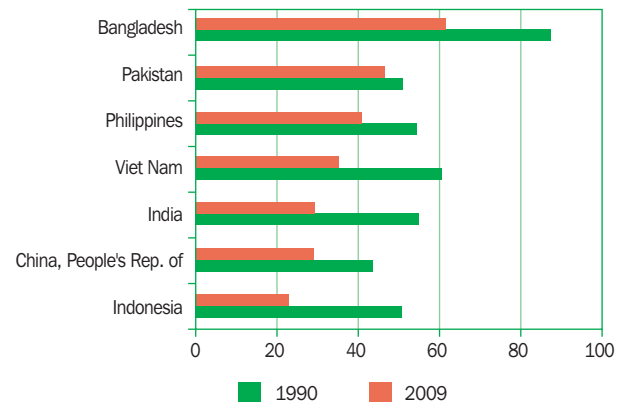
Figure 7.8 Proportion of the Population Using Improved Sanitation Facilities, Urban and Rural, 2010 (or Latest Year)



Source: Table 7.3.

**The proportion of slum population in urban areas decreased during 1990–2009.** Figure 7.9 illustrates the proportion of slum population in the urban population in 1990 and 2009 for the most populous economies in Asia. Bangladesh, with the region's highest share, substantially had decreased its slum population, by 29% in 2009. Among the reporting countries, Indonesia made the greatest reduction in its proportion of slum dwellers, by 55%, and India and Viet Nam had cut their proportions by more than 40%. Pakistan, however, had only reduced its share by 9%. In 2009, only the South Asia subregion had an average of 35%, higher than the developing world's average slum population at 32.7%.

Figure 7.9 Proportion of Slum Population (% of urban population), 1990 and 2009



Source: Table 7.8.

## Data Issues and Comparability

Because collecting data on national forest inventories is expensive, it is done at infrequent intervals in many countries. However, easier access to remote sensing imagery has enabled recent assessments of forest and tree cover in some countries.

Data on CO<sub>2</sub> emissions from forests and land-use changes are not always included into national totals because these data are less available and of greater uncertainty than data on CO<sub>2</sub> emissions from energy production, industrial processes, agriculture, and waste sectors. Information on CO<sub>2</sub> emissions comes mainly from international agencies and is derived by applying emission coefficients to estimates of fuel consumption, cement production, and gas flaring.

The statistics available for protected terrestrial and marine areas have data gaps for some countries, because of difficulties in reporting national protected area data to the World Database on Protected Areas and/or determining whether a site conforms to the International Union for Conservation of Nature definition of a protected area.

Discrepancies between internationally and nationally reported data on the proportion of population using an improved drinking water source or improved sanitation facility are often due to (1) the definitions used on what constitutes access to safe drinking water and sanitation; and (2) the different data used for population estimates (total, urban, and rural) by international agencies versus the the latest survey or census findings.

Data on housing conditions come mainly from population census and living standard surveys and no mechanism currently exists to monitor the security of housing tenure as part of target 7D—improving the lives of slum dwellers.

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## Goal 7 Targets and Indicators

Table 7.1 **Target 7.A: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources**

Regional Member	7.1 Proportion of Land		7.2 Carbon Dioxide Emissions			
	Area Covered by Forest (%)		(thousand metric tons)		(per capita, metric tons)	
	1990	2010	1990	2009	1990	2009
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	2.1	2.1	2677	6315	0.2	0.2
Armenia	12.3	9.3	4052 (1992)	4492	1.2 (1992)	1.5
Azerbaijan	11.3	11.3	57682 (1992)	49075	7.7 (1992)	5.4
Georgia	40.0	39.5	15335 (1992)	5845	2.9 (1992)	1.3
Kazakhstan	1.3	1.2	261307 (1992)	225803	15.9 (1992)	14.3
Kyrgyz Republic	4.4	5.0	10862 (1992)	6722	2.4 (1992)	1.3
Pakistan	3.3	2.2	68566	161220	0.6	0.9
Tajikistan	2.9	2.9	7220 (1992)	2835	1.3 (1992)	0.4
Turkmenistan	8.8	8.8	28067 (1992)	48162	7.2 (1992)	9.7
Uzbekistan	7.2	7.7	114014 (1992)	116508	5.3 (1992)	4.3
<b>East Asia</b>						
China, People's Rep. of	16.7	21.9	2460744	7687114	2.1	5.8
Hong Kong, China <sup>a</sup>	...	...	27660	36993	4.8	5.3
Korea, Rep. of	64.5	63.0	246943	509376	5.7	10.6
Mongolia	8.0	7.0	10044	14503	4.6	5.3
Taipei, China <sup>b,c</sup>	51.6	58.1 (2009)	175729 (1996)	251060	8.2 (1996)	10.9
<b>South Asia</b>						
Bangladesh	11.5	11.1	15533	51037	0.1	0.3
Bhutan	64.6	69.1	128	422	0.2	0.6
India	21.5	23.0	690577	1979425	0.8	1.6
Maldives	3.3	3.3	154	1027	0.7	3.3
Nepal	33.7	25.4	634	3517	0.0	0.1
Sri Lanka	36.4	28.8	3773	12658	0.2	0.6
<b>Southeast Asia</b>						
Brunei Darussalam <sup>d</sup>	78.4	72.1	6421	9281	25.5	23.7
Cambodia	73.3	57.2	451	4613	0.0	0.3
Indonesia	65.4	52.1	149566	451782	0.8	1.9
Lao PDR	75.0	68.2	235	1811	0.1	0.3
Malaysia	68.1	62.3	56593	198348	3.1	7.1
Myanmar	59.6	48.3	4276	11093	0.1	0.2
Philippines	35.5	25.7	41763	68551	0.7	0.7
Singapore	3.4	2.9	46941	31896	15.6	6.4
Thailand	38.2	37.1	95833	271721	1.7	4.0
Viet Nam	30.2	44.5	21408	142258	0.3	1.6
<b>The Pacific</b>						
Cook Islands	63.9	66.7	22	70	1.2	3.5
Fiji	53.6	55.5	818	847	1.1	1.0
Kiribati	3.0	14.8	22	51	0.3	0.5
Marshall Islands	...	72.2	48	103	1.0	1.9
Micronesia, Fed. States of	91.4	91.4	55 (1999)	62	0.5 (1999)	0.6
Nauru	...	0.0	132	147	14.4	14.4
Palau	82.6	87.0	235	209	15.6	10.3
Papua New Guinea	69.6	63.4	2142	3480	0.5	0.5
Samoa	45.9	60.4	125	161	0.8	0.9
Solomon Islands	98.9	79.1	161	198	0.5	0.4
Timor-Leste	65.0	49.9	161 (2002)	183	0.2 (2002)	0.2
Tonga	5.0	12.5	77	176	0.8	1.7
Tuvalu	33.3	33.3	...	...	...	...
Vanuatu	36.1	36.1	70	117	0.5	0.5
<b>Developed Member Economies</b>						
Australia <sup>e</sup>	21.9	19.4	287331	400194	16.8	18.2
Japan <sup>e</sup>	68.4	68.5	1094633	1101134	8.9	8.6
New Zealand <sup>e</sup>	28.8	30.9	23681	32064	7.1	7.4

continued

## Goal 7 Targets and Indicators

Table 7.1 **Target 7.A: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources** (continued)

Regional Member	7.3 Consumption of All Ozone-Depleting Substances (ODP metric tons)		7.5 Proportion of Total Water Resources Used (%)	
	1990	2010	1990	2010
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	– (1991)	24.9	...	35.6 (2000)
Armenia	– (1991)	7.1	45.1	36.4 (2005)
Azerbaijan	2.8 (1991)	0.3	44.9	35.2 (2005)
Georgia	94.8 (1991)	5.9	5.5	2.6 (2005)
Kazakhstan	2355.9	110.0	33.4	28.9 (2000)
Kyrgyz Republic	133.5 (1991)	4.3	47.6	43.7 (2000)
Pakistan	1455.8	255.0	69.1	81.5
Tajikistan	93.3 (1991)	2.8	75.2	74.8 (2000)
Turkmenistan	145.2	9.6	100.1	100.8 (2000)
Uzbekistan	4.4 (1991)	0.9	124.0	118.3 (2000)
<b>East Asia</b>				
China, People's Rep. of	59674.0	21388.2	17.6	19.5 (2005)
Hong Kong, China <sup>a</sup>	...	...	...	...
Korea, Rep. of	– (1991)	2113.9	34.0 (1995)	36.5 (2000)
Mongolia	– (1991)	1.5	1.2 (1995)	1.4 (2000)
Taipei, China <sup>b,c</sup>	...	...	15.8 (2001)	21.6 (2009)
<b>South Asia</b>				
Bangladesh	202.1	125.5	...	3.0
Bhutan	– (1991)	0.3	...	0.4
India	– (1991)	1933.7	26.3	40.1
Maldives	4.5	4.0	...	15.7
Nepal	25.0 (1991)	1.2	...	4.8 (2000)
Sri Lanka	218.2	14.5	18.5	24.5 (2005)
<b>Southeast Asia</b>				
Brunei Darussalam <sup>d</sup>	– (1991)	6.9	0.9	...
Cambodia	– (1991)	12.8	...	0.5 (2005)
Indonesia	80.8 (1991)	433.0	3.7	5.6 (2000)
Lao PDR	–	2.5	...	0.9 (2000)
Malaysia	4193.7	542.8	1.7	2.1 (2000)
Myanmar	– (1991)	4.5	...	2.8 (2000)
Philippines	3477.2	222.0	5.8 (1995)	17.0
Singapore	4855.2	207.0	...	...
Thailand	6984.2	1088.8	...	13.1 (2005)
Viet Nam	430.0 (1991)	311.7	6.1	9.3 (2005)
<b>The Pacific</b>				
Cook Islands	0.1 (1991)	0.1	...	...
Fiji	41.8	9.2	...	0.3 (2000)
Kiribati	– (1991)	0.1	...	...
Marshall Islands	1.2	0.2	...	...
Micronesia, Fed. States of	– (1991)	0.2	...	...
Nauru	– (1991)	–	...	...
Palau	– (1991)	0.2	...	...
Papua New Guinea	28.5 (1991)	3.3	...	– (2000)
Samoa	4.0 (1991)	0.3	...	...
Solomon Islands	2.1	2.3	...	...
Timor-Leste	0.3 (1991)	0.5	...	...
Tonga	0.4 (1991)	0.1	...	...
Tuvalu	– (1991)	0.1	...	...
Vanuatu	– (1991)	0.5	...	...
<b>Developed Member Economies</b>				
Australia <sup>e</sup>	7434.4	-6.4	...	4.9 (2000)
Japan <sup>e</sup>	120074.2	622.4	21.3	20.6 (2000)
New Zealand <sup>e</sup>	1195.4	11.6	...	0.6 (2000)

– = Magnitude equals zero, ... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, CO<sub>2</sub> = carbon dioxide, ODP = ozone-depleting potential.

- a The proportion of land area covered by forest in Hong Kong, China is included in the data of the People's Republic of China.  
b On proportion of total water resources used, Taipei, China data is equal to the percentage of available resources, that is the proportion of total amount of water above ground to the annual runoff.  
c On CO<sub>2</sub> emissions, Taipei, China data includes emissions from fuel combustion only. Derived per capita emission for 1996 and 2009 using available data on CO<sub>2</sub> emissions and population.  
d Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.  
e Derived per capita emission using available data on CO<sub>2</sub> emission and population.

Sources: Food and Agriculture Organization (FAOStat and AquaStat); Carbon Dioxide Information Analysis Center (CDIAC); United Nations Environment Program (UNEP); Millennium Indicators Database Online (UNSD 2012); Directorate-General of Budget, Accounting and Statistics (DGBAS) for Taipei, China.

## Goal 7 Targets and Indicators

Table 7.2 **Target 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss**

Regional Member	7.6 Proportion of Terrestrial and Marine Areas Protected (%)		7.6a Terrestrial Areas Protected to Total Surface Area (%)		7.6b Marine Areas Protected to Territorial Waters (%)	
	1990	2010	1990	2010	1990	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	0.4	0.4	0.4	0.4	–	–
Armenia	6.9	8.0	6.9	8.0	–	–
Azerbaijan	6.2	7.2	6.2	7.2	–	–
Georgia	2.6	3.4	2.8	3.7	0.2	0.5
Kazakhstan	2.4	2.5	2.4	2.5	–	–
Kyrgyz Republic	6.4	6.9	6.4	6.9	–	–
Pakistan	9.8	9.8	10.1	10.1	1.8	1.8
Tajikistan	1.9	4.1	1.9	4.1	–	–
Turkmenistan	3.0	3.0	3.0	3.0	–	–
Uzbekistan	2.1	2.3	2.1	2.3	–	–
<b>East Asia</b>						
China, People's Rep. of	13.0	16.0	13.5	16.6	0.4	1.3
Hong Kong, China	41.1	41.8	41.1	41.8	–	–
Korea, Rep. of	3.9	5.0	4.3	5.9	3.5	3.9
Mongolia	4.1	13.4	4.1	13.4	–	–
Taipei, China <sup>a</sup>	9.2	18.9	...	...	...	...
<b>South Asia</b>						
Bangladesh	1.4	1.6	1.7	1.8	0.4	0.8
Bhutan	14.3	28.4	14.3	28.4	–	–
India	4.5	4.8	4.7	5.0	1.6	1.7
Maldives	–	–	–	–	–	–
Nepal	7.7	17.0	7.7	17.0	–	–
Sri Lanka	13.8	15.0	20.3	21.5	0.1	1.1
<b>Southeast Asia</b>						
Brunei Darussalam <sup>b</sup>	24.8	29.6	36.7	44.0	1.4	1.4
Cambodia	0.0	23.4	0.0	25.8	–	0.4
Indonesia	4.0	6.4	10.0	14.2	0.5	2.0
Lao PDR	1.5	16.6	1.5	16.6	–	–
Malaysia	12.8	13.7	17.1	18.1	1.5	2.0
Myanmar	2.6	5.2	3.1	6.3	0.3	0.3
Philippines	3.0	5.0	8.7	10.9	0.5	2.5
Singapore	2.5	3.4	5.0	5.4	–	1.4
Thailand	12.8	17.3	14.7	20.1	4.0	4.4
Viet Nam	3.0	4.6	4.5	6.2	0.3	1.7
<b>The Pacific</b>						
Cook Islands	0.0	0.1	0.1	0.8	–	–
Fiji	0.2	0.2	1.1	1.3	0.1	0.1
Kiribati	0.3	22.6	5.0	23.2	0.3	22.6
Marshall Islands	–	0.6	–	3.1	–	0.6
Micronesia, Fed. States of	0.1	0.1	2.7	4.0	–	0.1
Nauru	–	–	–	–	–	–
Palau	0.5	4.8	0.3	2.0	0.5	5.3
Papua New Guinea	0.9	1.4	1.9	3.1	0.3	0.3
Samoa	0.9	1.2	2.4	3.4	0.5	0.6
Solomon Islands	0.0	0.1	0.1	0.1	–	0.1
Timor-Leste	–	6.4	–	6.1	–	6.7
Tonga	0.1	9.4	1.4	14.5	–	9.4
Tuvalu	–	0.2	–	0.4	–	0.2
Vanuatu	0.4	0.5	3.7	4.3	–	0.1
<b>Developed Member Economies</b>						
Australia	7.8	12.5	7.5	10.6	10.9	28.3
Japan	7.6	10.9	13.4	16.5	2.0	5.6
New Zealand	15.4	20.0	25.4	26.2	0.4	10.8

– = Magnitude equals zero, ... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Total size of nature-protected areas (including marine area) as percentage of national territory (excluding maritime area).

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: IUCN and UNEP-WCMC (2011) The World Database on Protected Areas (WDPA); Millennium Indicators Database Online (UNSD 2012); and Directorate-General of Budget, Accounting and Statistics (DGBAS) for Taipei, China.

## Goal 7 Targets and Indicators

Table 7.3 **Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation**

Regional Member	7.8 Population Using Improved Water Sources (%)					
	1990			2010		
	Total	Urban	Rural	Total	Urban	Rural
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	2 (1991)	6 (1991)	1 (1991)	50	78	42
Armenia	90 (1992)	98 (1992)	75 (1992)	98	99	97
Azerbaijan	70	88	49	80	88	71
Georgia	81	94	66	98	100	96
Kazakhstan	96	99	92	95	99	90
Kyrgyz Republic	78 (1991)	98 (1991)	66 (1991)	90	99	85
Pakistan	85	95	81	92	96	89
Tajikistan	62 (1993)	93 (1993)	49 (1993)	64	92	54
Turkmenistan	83 (1994)	97 (1994)	72 (1994)	84 (2006)	97 (2006)	72 (2006)
Uzbekistan	90	97	85	87	98	81
<b>East Asia</b>						
China, People's Rep. of	67	97	56	91	98	85
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	90 (1991)	97 (1991)	67 (1991)	98	100	88
Mongolia	54	74	27	82	100	53
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	77	87	75	81	85	80
Bhutan	86 (1997)	99 (1997)	82 (1997)	96	100	94
India	69	88	63	92	97	90
Maldives	93	100	91	98	100	97
Nepal	76	96	74	89	93	88
Sri Lanka	67	91	62	91	99	90
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...
Cambodia	31	48	29	64	87	58
Indonesia	70	91	61	82	92	74
Lao PDR	39 (1994)	75 (1994)	32 (1994)	67	77	62
Malaysia	88	94	82	100	100	99
Myanmar	56	80	48	83	93	78
Philippines	85	93	77	92	93	92
Singapore <sup>b</sup>	100	100	...	100	100	...
Thailand	86	96	82	96	97	95
Viet Nam	57	88	49	95	99	93
<b>The Pacific</b>						
Cook Islands	94	99	87	95 (2007)	98 (2007)	88 (2007)
Fiji	84	94	77	98	100	95
Kiribati	48	76	33	63 (2006)	77 (2006)	53 (2006)
Marshall Islands	95	94	97	94	92	99
Micronesia, Fed. States of	89	93	87	94 (2006)	95 (2006)	94 (2006)
Nauru	98	...	...	88	88	...
Palau	80	73	96	85	83	96
Papua New Guinea	41	89	32	40	87	33
Samoa	89	97	87	96	96	96
Solomon Islands	69 (1993)	94 (1993)	65 (1993)	70 (2005)	94 (2005)	65 (2005)
Timor-Leste	52 (1995)	67 (1995)	48 (1995)	69	91	60
Tonga	100	100	100	100	100	100
Tuvalu	90	92	89	98	98	97
Vanuatu	62	94	55	90	98	87
<b>Developed Member Economies</b>						
Australia	100	100	100	100	100	100
Japan	100	100	100	100	100	100
New Zealand	100	100	100	100	100	100

continued



## Goal 7 Targets and Indicators

Table 7.3 **Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation** (continued)

Regional Member	7.9 Population Using Improved Sanitation Facilities					
	(%)					
	1990			2010		
	Total	Urban	Rural	Total	Urban	Rural
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	29 (1991)	36 (1991)	27 (1991)	37	60	30
Armenia	88 (1992)	95 (1992)	75 (1992)	90	95	80
Azerbaijan	57 (1994)	70 (1994)	43 (1995)	82	86	78
Georgia	96	97	95	95	96	93
Kazakhstan	96	96	97	97	97	98
Kyrgyz Republic	93 (1991)	94 (1991)	93 (1991)	93	94	93
Pakistan	27	72	7	48	72	34
Tajikistan	89 (1993)	93 (1993)	87 (1993)	94	95	94
Turkmenistan	98	99	97	98	99	97
Uzbekistan	84	95	76	100	100	100
<b>East Asia</b>						
China, People's Rep. of	24	48	15	64	74	56
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	100	100	100	100	100	100
Mongolia	50 (1994)	66 (1994)	28 (1994)	51	64	29
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	39	58	34	56	57	55
Bhutan	38 (1997)	66 (1997)	30 (1997)	44	73	29
India	18	51	7	34	58	23
Maldives	68	98	58	97	98	97
Nepal	10	37	7	31	48	27
Sri Lanka	70	85	67	92	88	93
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...
Cambodia	9	36	5	31	73	20
Indonesia	32	56	21	54	73	39
Lao PDR	16 (1994)	58 (1994)	8 (1994)	63	89	50
Malaysia	84	88	81	96	96	95
Myanmar	54 (1991)	77 (1991)	47 (1991)	76	83	73
Philippines	57	69	45	74	79	69
Singapore <sup>b</sup>	99	99	...	100	100	...
Thailand	84	94	80	96	95	96
Viet Nam	37	63	30	76	94	68
<b>The Pacific</b>						
Cook Islands	96	100	91	100	100	100
Fiji	61	90	40	83	94	71
Kiribati	26	36	21	34 (2006)	49 (2006)	22 (2006)
Marshall Islands	64	77	41	75	83	53
Micronesia, Fed. States of	29	55	20	25 (2006)	61 (2006)	15 (2006)
Nauru	66	66	...	65	65	...
Palau	65	78	36	100	100	100
Papua New Guinea	47	78	42	45	71	41
Samoa	99	100	99	98	98	98
Solomon Islands	29 (1993)	98 (1993)	18 (1993)	32 (2005)	98 (2005)	18 (2005)
Timor-Leste	37 (1995)	55 (1995)	32 (1995)	47	73	37
Tonga	96	98	96	96	98	96
Tuvalu	80	86	76	85	88	81
Vanuatu	35 (1992)	50 (1992)	32 (1992)	57	64	54
<b>Developed Member Economies</b>						
Australia	100	100	100	100	100	100
Japan	100	100	100	100	100	100
New Zealand	...	...	88	...	...	...

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b No data for the rural area since the country is 100% urban.

Source: WHO/UNICEF Joint Monitoring Program for Water Supply and Sanitation (JMP 2012).

## Goal 7 Targets and Indicators

Table 7.4 **Target 7.D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers**

Regional Member	7.10 Slum Population as Percentage of Urban Population		
	1990	2005	2009
<b>Developing Member Economies</b>			
<b>Central and West Asia</b>			
Afghanistan <sup>a</sup>	98.5	88.6	...
Armenia	...	...	...
Azerbaijan	...	...	...
Georgia	...	...	...
Kazakhstan	...	...	...
Kyrgyz Republic	...	...	...
Pakistan <sup>b</sup>	78.7	47.5	46.6
Tajikistan	...	...	...
Turkmenistan	...	...	...
Uzbekistan	...	...	...
<b>East Asia</b>			
China, People's Rep. of <sup>a</sup>	43.6	32.9	29.1
Hong Kong, China	...	...	...
Korea, Rep. of <sup>a</sup>	68.5	37.0 (2000)	...
Mongolia <sup>c</sup>	68.5	57.9	57.9 (2007)
Taipei, China	...	...	...
<b>South Asia</b>			
Bangladesh <sup>b</sup>	87.3	70.8	61.6
Bhutan <sup>a</sup>	70.0	44.1 (2000)	...
India <sup>b</sup>	54.9	34.8	29.4
Maldives	...	...	...
Nepal <sup>d</sup>	96.9	60.7	58.1
Sri Lanka <sup>a</sup>	24.8	12.0	...
<b>Southeast Asia</b>			
Brunei Darussalam <sup>e</sup>	2.0	2.0 (2000)	...
Cambodia <sup>a</sup>	71.7	78.9	...
Indonesia <sup>f</sup>	50.8	26.3	23.0
Lao PDR <sup>g</sup>	66.1	79.3	...
Malaysia	2.0	2.0 (2000)	...
Myanmar <sup>h</sup>	31.1	45.6	...
Philippines <sup>i</sup>	54.9	43.7	40.9
Singapore	...	...	...
Thailand <sup>h</sup>	19.5	26.0	27.0
Viet Nam	60.5	41.3	35.2
<b>The Pacific</b>			
Cook Islands	...	...	...
Fiji	...	...	...
Kiribati	...	...	...
Marshall Islands	...	...	...
Micronesia, Fed. States of	...	...	...
Nauru	...	...	...
Palau	...	...	...
Papua New Guinea	...	...	...
Samoa	...	...	...
Solomon Islands	...	...	...
Timor-Leste	2.0	12.0 (2000)	...
Tonga	...	...	...
Tuvalu	...	...	...
Vanuatu	...	...	...
<b>Developed Member Economies</b>			
Australia	...	...	...
Japan	...	...	...
New Zealand	...	...	...

... = Data not available at cutoff date

a Estimation based on two components: water and sanitation.

b Trend analysis was used to estimate the percentage of slum.

c In 1990 and 2001 slum estimates, only two shelter components (water and sanitation), from UNICEF/WHO were used. Four shelter components (water, sanitation, sufficient living, and durable housing) from MICS 2000 were used to estimate 2005 slum.

d Increase in access to improved sanitation by 46.3% and increase of access to improved durable housing by 8.5% from 1996 to 2001. Simulation was used to compute sufficient living for 2001 and then Trend Analysis to estimate 2005 and 2009 slum.

e Brunei Darussalam is a regional member of ADB, but is not classified as a developing member.

f Decrease in access to improved water by 12.8% from 1997 to 2002. Trend Analysis used to estimate 2005 slum.

g In 1990 and 2001 slum estimates, only two shelter components (water and sanitation), from UNICEF/WHO were used. Three shelter components (water, sanitation and durable housing) from MICS 2000 were used to estimate 2005 slum.

h In 1990 and 2001 slum estimates, only two shelter components (water and sanitation), from UNICEF/WHO were used. Four shelter components (water, sanitation, sufficient living, and durable housing) were used to estimate 2005 slum.

i Simulation was used to compute sufficient living for 2003. Trend Analysis used to estimate 2005 and 2009 slum.

Sources: UN Human Settlements Programme (UN-Habitat); Millennium Indicators Database Online (UNSD 2012).

## Goal 8: Develop a Global Partnership for Development

### Snapshots

- In 2010, the net flow of official development assistance (ODA) to developing economies amounted to \$128.5 billion which is equivalent to 0.32% of combined gross national income (GNI) of Development Assistance Committee (DAC) members, all of which are ADB members except for Greece. This fell short of the 2010 target of \$130 billion (at constant 2004 prices) of the Gleneagles Group of Eight (G8) Summit.
- From 2000 to 2010, the proportion of untied bilateral aid rose progressively. Developing ADB members received a total of \$37 billion including net flows of long-term public and publicly guaranteed debt from official creditors and grants in 2010, a 4.8% increase from the 2009 allocation.
- A substantial drop in exports from many developing members in 2009, after the Global Financial crisis, arrested the steady decline of their debt service ratios (debt service to exports of goods and services). Except for Central and West Asia, where debt service ratio increased to over 40% in 2009, the debt service ratios remained within manageable levels at around 12% or less in the region.
- More than half of developing ADB members, 12 that are landlocked and 12 small island economies, are given preferential access to major markets and received about \$13.5 billion net flows of public and publicly guaranteed debt in 2010.

### Introduction

**Goal 8** has six targets. The first three targets which refer to the provision of official development assistance (ODA) are the focus of this section.

*8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.*

*8.B: Address the special needs of the least developed countries.*

*8.C: Address the special needs of landlocked developing countries and small island developing states.*

Target 8F, which refers to the availability of new technologies especially information and communications will be discussed in Part III - Transport, Electricity, and Communications.

### Key Trends

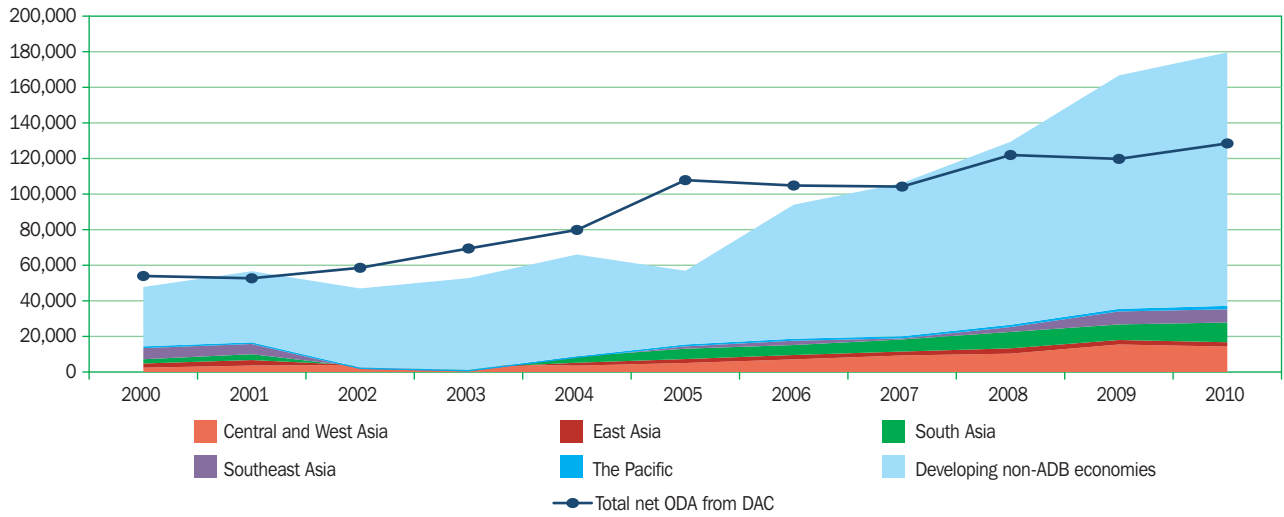
**The net flow of ODA in 2010 amounted to \$128.5 billion, an increase of 6.8% in real terms from 2009 levels.** The ODA provided by Development Assistance Committee (DAC) members has been increasing since 2005, after donors pledged a target of \$130 billion (at constant 2004 dollars) by 2010 in ODA at the Gleneagles meeting (UN 2008). However, the total ODA for 2010, which is equivalent to 0.32% of combined GNIs of DAC members, amounted only to \$128.5 billion falling short of the target.

The DAC is one of the key forums in which the major bilateral donors work together to increase the effectiveness of their common efforts to support sustainable development (OECD 2008). All DAC members except Greece are also ADB members, and four are regional members—Australia,

Japan, New Zealand, and the Republic of Korea. In 2010, net aid disbursement of the four amounted to \$16.4 billion, representing 0.22% of their combined GNIs.

**Developing ADB members received a total of \$37 billion, including net flows of long-term public and publicly guaranteed debt from official creditors and grants in 2010, a 4.8% increase from the 2009 allocation.** As shown in Figure 8.1, official net flows to developing economies grew steadily beginning 2006. The decline in 2002 and 2003 is due to the decrease in the use of emergency financing packages by the International Monetary Fund (IMF) and the prepayments of loans to the World Bank led by the People's Republic of China, India, and Thailand (World Bank 2004). The drop in net

Figure 8.1 ODA and Official Flows from All Sources to Developing Economies, 2000–2010  
million US\$ (current)



Sources: Table 8.1 and RT 4.17.

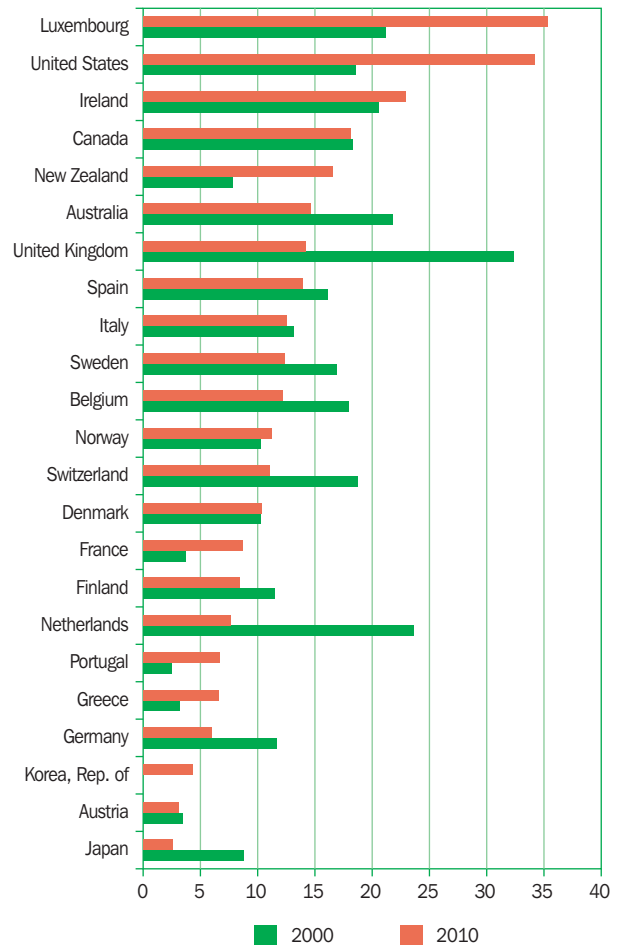
official flows may indicate that an improved financial condition in developing countries lowered demand for multilateral lending and facilitated repayments.

In general, the total net official flow received by developing members is comparatively a small portion of the total net flows to all developing economies. Central and West Asian countries received the highest combined net flows, followed by South Asia. East Asia, which has been receiving less than 15% of the total net flows disbursed to developing members since 2005, is less dependent on foreign aid. Some, such as the Republic of Korea, have emerged as ODA providers.

India recorded the highest net official flows in 2010, receiving a total of \$6.7 billion or 18% of the total disbursement, followed by Afghanistan (17%), Viet Nam (10%), Pakistan (9%), and Indonesia (7%). Except for Papua New Guinea, most economies in the Pacific received less than 1% of the total long-term public and publicly guaranteed debt disbursed in 2010.

Figure 8.2 shows that during 2000–2010, only three DAC members substantially increased their ODA allocation to basic services, which include education, primary health care, nutrition and safe water. The three are United States (16%), Luxembourg (14%), and New Zealand (9%). Some countries have restructured their aid allocation favoring economic infrastructure and productive sectors, including agricultural development and aid for trade, that enhance investments, create employment opportunities, increase productivity, and eventually lead to economic growth (JICA 2010).

Figure 8.2 Donor Allocation to Basic Social Services, 2000 and 2010  
(percentage of ODA)



ODA = Official Development Assistance.  
Source: Table 8.2.

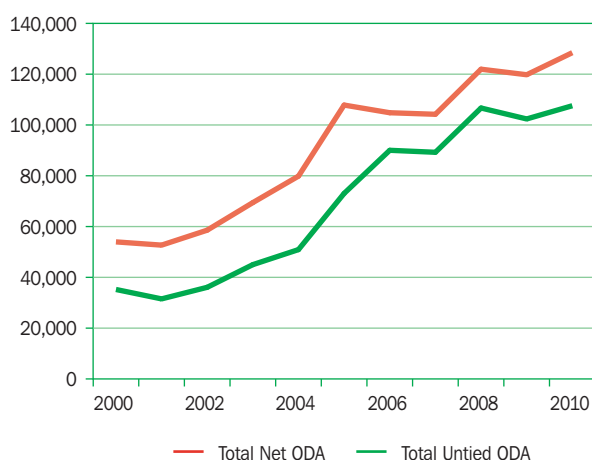
**From 2000 to 2010, the proportion of untied bilateral aid rose progressively.** As shown in Figure 8.3, the net untied ODA disbursed by DAC members rose from 65% in 2000 to 84% in 2010. Figure 8.4 also shows that more than half of the DAC members are working to comply with the OECD–DAC Recommendation in 2001, which was reaffirmed by the Paris Declaration in 2005, to untie ODA to least-developed countries. The aim is to increase aid effectiveness and improve the ability of the recipient

country to set their own course on the basis of sound procurement policies and practices (OECD 2009).

All ODA from Ireland, Norway, Sweden, and the United Kingdom are untied or have been freed from legal and regulatory barriers to open competition for aid-funded procurement outside their own markets. Ten economies have also made substantial progress in untying their aid, and allowed more than 90% of their ODA in 2010 to be untied—Australia, Belgium, Canada, Denmark, France, Germany, Japan, Luxembourg, the Netherlands, and New Zealand. The Republic of Korea, which became a member of DAC in 2010 and made no commitments in 2005, has more than 30% of its ODA untied.

**A substantial drop in exports for many developing members in 2009, after the Global Financial crisis, arrested the steady decline of their debt service ratios** (Figure 8.5). The lower a country's debt service ratio, the healthier its international finances are. The debt sustainability framework of the IMF and the World Bank has set the threshold at debt service of 15%–25% of exports for sustainable economic growth (World Bank 2012). Between 2000 and 2008, the average ratio of total debt service paid to exports of goods of reporting ADB developing economies declined from 12% to 6.7%. The ratio is considered to be an indicator of a country's debt burden, which affects its creditworthiness and vulnerability to economic shocks. The burden of debt service can be reduced through better debt management, the expansion of trade, and substantial debt relief (UN 2012). A reduced burden of debt service also allows a government to increase its domestic spending on public investments such as infrastructure and on health, education, and other social services.

Figure 8.3 Total and Untied Bilateral ODA, 2000–2010  
million US\$ (current)



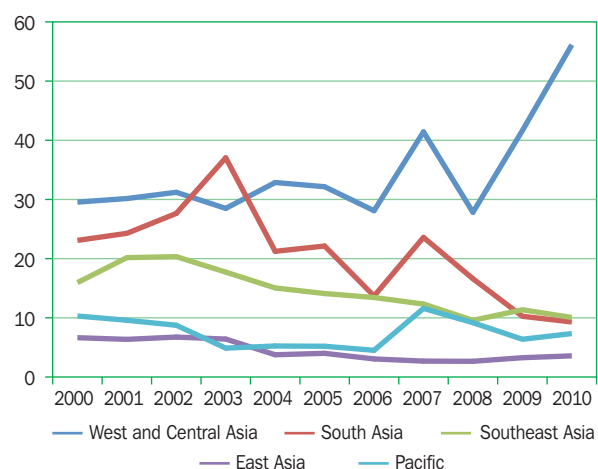
Source: Table 8.2.

Figure 8.4 Share of Untied ODA to Total ODA, 2010  
(%)



Source: Table 8.2.

Figure 8.5 Debt Service Ratio, 2000–2010  
(%)

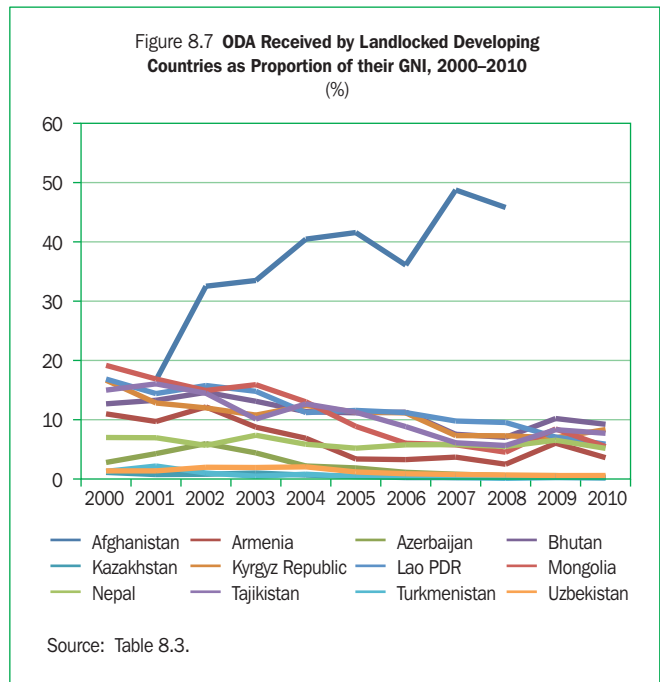
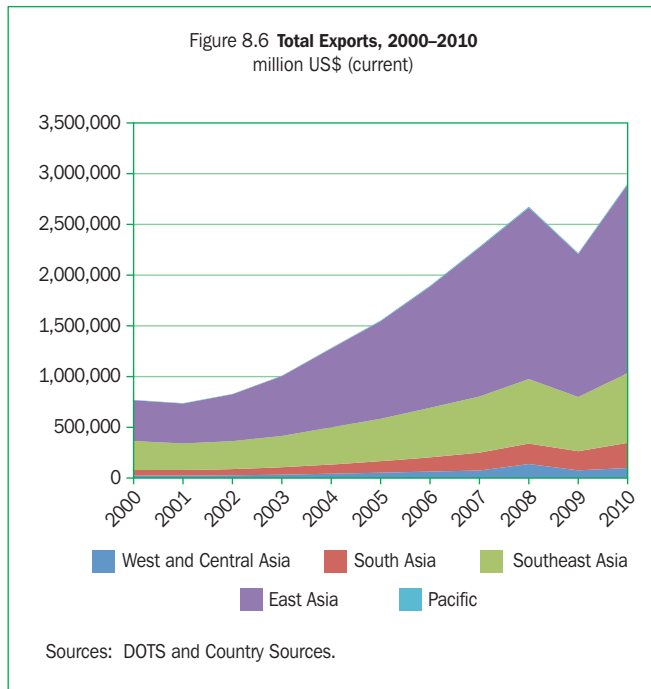


Source: Regional Table 4.24.

South Asia’s debt service ratio peaked in 2003 after the debt servicing obligations of the region increased during the year. Between 2004 and 2006, the debt situation of most economies improved, reflecting relatively strong economic growth and less need for new borrowing. In 2008, following a sharp increase in 2007, Central and West Asia, South Asia, and the Pacific recorded a decline in their debt service ratios as a result of the rise in their export earnings (Figure 8.6). Reporting ADB developing economies faced diverse situations during the 2009 global economic crisis. The impact of the crisis was more pronounced in Central and West Asia, where the ratio of public debt service to exports increased from 28% in 2008 to 42% in 2009, after exports in the region dropped by 45%. In Southeast Asia, the 16% drop in its exports in 2009 interrupted the average annual 1% decline of the region’s debt service ratio that began in 2002.

**More than half of developing ADB members, 12 that are landlocked and 12 small island economies were given preferential access to major markets and continue to receive public and publicly guaranteed debt.** Landlocked developing countries received about \$11.5 billion and small island developing states received \$2 billion, accounting for 32% and 6%, respectively, of the total net flows of public and publicly guaranteed debt disbursed to developing members in 2010. During 2000–2010, developing countries have also gained greater access to the markets of developed countries. Exports have been accorded preferential tariffs, which provide a much-needed price advantage for their products (UN 2010).

Flows of ODA from donors to landlocked developing countries have also increased, by an annual average of 13% beginning 2004 (Figure 8.7). Afghanistan dominates the receipts, accounting for 5% of total ODA in 2010. ODA has contributed more than 40% of the country’s GNI since 2004, most of which is provided in the form of debt relief and humanitarian aid (OECD 2008). ODA has also become a significant source of external financing in Bhutan, the Kyrgyz Republic, the Lao People’s Democratic Republic, Mongolia, Nepal, and Tajikistan, accounting 5% to 15% of their GNIs.



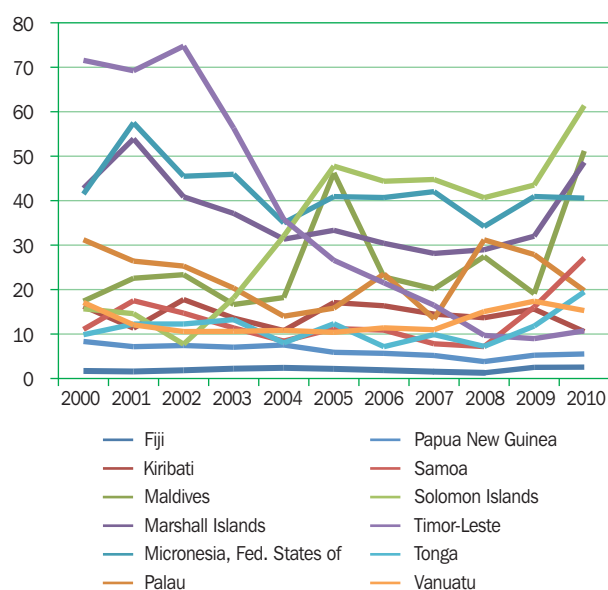
Between 2005 and 2010, small island developing countries continue to receive \$1.5 billion to \$2.8 billion ODA per year, equivalent to at least 9% of their combined GNIs (Figure 8.8). ODA remains a main source of external finance to the Federated States of Micronesia and the Solomon Islands, accounting for more than 40% of their GNIs since 2005. Though small island developing states received only 5% of the total disbursement in 2010, ODA contributes significantly to the national development in Micronesia, accounting for 25–35% of its GNI since 2005; the Maldives, Palau, and Vanuatu (10–25% of their GNIs); and Fiji, Samoa, and Tonga (1–10% of their GNIs).

## Data Issues and Comparability

All data on ODA are collected by the OECD–DAC Secretariat from its 23 members, then checked and aggregated by the Secretariat. Part of the difficulty in monitoring MDG 8 is the lack of quantitative targets in some areas and of individual country data to track commitment adequately. Effective monitoring of commitments associated with or made under MDG 8 requires a methodology that helps to maintain a current inventory of the different international initiatives and that proposes ways to measure the degree of compliance with commitments.

Also, for proportion of ODA allocated to basic social services, data are compiled on a project basis according to the most relevant sectors, hence basic social services expenditures in other sectors were not captured. In addition, the data on the tying status of ODA and other official flows, as reported to the OECD, are quite incomplete.

Figure 8.8 ODA Received by Small Island Developing States as Proportion of their GNI, 2000–2010 (%)



Source: Table 8.3.

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## Goal 8 Targets and Indicators

Table 8.1 **Target 8.A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system**

Development Assistance Committee Members	8.1 Net ODA to the least developed countries, as percentage of OECD/DAC donors' gross national income												
	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	0.06	0.06	0.08	0.07	0.07	0.06	0.06	0.06	0.07	0.08	0.08	0.08	0.10
Austria	0.06	0.06	0.06	0.08	0.09	0.07	0.06	0.08	0.08	0.07	0.07	0.09	0.12
Belgium	0.19	0.10	0.11	0.14	0.15	0.36	0.19	0.16	0.18	0.17	0.19	0.20	0.31
Canada	0.13	0.08	0.05	0.04	0.06	0.08	0.08	0.10	0.10	0.11	0.13	0.11	0.15
Denmark	0.37	0.30	0.36	0.36	0.33	0.34	0.33	0.32	0.32	0.34	0.32	0.34	0.36
Finland	0.24	0.09	0.10	0.10	0.12	0.12	0.12	0.13	0.14	0.15	0.15	0.19	0.20
France	0.19	0.11	0.09	0.09	0.13	0.17	0.17	0.11	0.12	0.11	0.11	0.12	0.14
Germany	0.12	0.07	0.07	0.07	0.07	0.11	0.09	0.07	0.09	0.09	0.10	0.10	0.11
Greece <sup>a</sup>	...	...	0.03	0.03	0.04	0.03	0.03	0.04	0.04	0.04	0.05	0.04	0.04
Ireland	0.06	0.12	0.15	0.18	0.23	0.22	0.22	0.21	0.28	0.28	0.30	0.28	0.29
Italy	0.13	0.04	0.05	0.05	0.10	0.08	0.05	0.08	0.04	0.06	0.07	0.05	0.06
Japan	0.06	0.05	0.06	0.05	0.05	0.05	0.04	0.05	0.08	0.06	0.05	0.06	0.08
Korea, Rep. of	-	-	0.01	0.01	0.01	0.02	0.02	0.03	0.01	0.02	0.03	0.03	0.04
Luxembourg	0.08	0.23	0.22	0.24	0.28	0.27	0.27	0.28	0.34	0.36	0.38	0.39	0.40
Netherlands, The	0.30	0.23	0.22	0.26	0.30	0.29	0.30	0.27	0.20	0.24	0.24	0.21	0.24
New Zealand	0.04	0.05	0.07	0.07	0.06	0.07	0.08	0.07	0.08	0.07	0.09	0.09	0.08
Norway	0.51	0.35	0.27	0.28	0.36	0.38	0.37	0.35	0.35	0.34	0.33	0.33	0.34
Portugal	0.14	0.15	0.15	0.15	0.16	0.11	0.52	0.09	0.10	0.10	0.10	0.10	0.13
Spain	0.04	0.04	0.03	0.05	0.05	0.05	0.05	0.07	0.06	0.08	0.10	0.12	0.12
Sweden	0.35	0.22	0.24	0.23	0.27	0.28	0.24	0.31	0.29	0.30	0.32	0.34	0.30
Switzerland	0.14	0.11	0.11	0.10	0.09	0.12	0.11	0.10	0.11	0.11	0.11	0.14	0.11
United Kingdom	0.09	0.07	0.11	0.12	0.09	0.13	0.14	0.12	0.16	0.15	0.16	0.18	0.21
United States	0.04	0.03	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.04	0.06	0.07	0.07

... = Data not available at cutoff date, - = Magnitude equals zero, ODA = official development assistance.

a Greece is not an ADB member country.

Source: Organisation for Economic Co-operation and Development (OECD 2012).



## Goal 8 Targets and Indicators

Table 8.2 Target 8.B: Address the special needs of least developed countries

Development Assistance Committee Members	8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water, and sanitation)											
	1996	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	10.3	21.8	21.2	12.8	21.9	10.3	11.1	9.1	9.7	18.5	14.5	14.6
Austria	4.9	3.4	3.6	4.2	10.0	15.1	12.8	12.8	9.3	4.7	6.4	3.1
Belgium	10.6	17.9	18.0	21.7	17.1	14.2	19.3	21.2	21.2	16.7	13.2	12.2
Canada	6.3	18.3	22.6	23.9	29.9	28.7	32.3	30.9	32.0	19.2	30.4	18.1
Denmark	12.6	10.3	6.6	8.8	18.5	25.8	11.7	22.9	10.1	12.6	21.3	10.4
Finland	5.8	11.5	12.5	16.8	11.1	18.6	9.9	10.3	14.0	11.2	5.8	8.4
France	0.7	3.7	3.6	4.0	4.4	5.6	1.9	4.4	6.1	10.3	11.3	8.7
Germany	8.0	11.7	8.7	11.6	10.4	14.4	9.2	11.4	10.0	7.7	8.7	6.0
Greece <sup>a</sup>	19.3	3.2	5.9	2.3	22.9	15.1	19.0	20.4	15.1	3.7	11.2	6.6
Ireland	0.5	20.6	22.2	39.5	25.3	32.6	31.4	42.3	35.6	28.7	32.7	22.9
Italy	10.4	13.1	5.5	18.5	23.1	14.0	10.6	5.5	12.2	9.1	13.4	12.6
Japan	2.2	8.8	4.4	5.1	4.8	6.0	3.6	4.0	4.2	2.7	18.8	2.6
Korea, Rep. of	...	...	...	...	...	...	...	18.0	10.7	13.9	6.7	4.3
Luxembourg	...	21.2	24.7	32.4	10.1	32.7	26.2	32.0	33.9	34.4	36.1	35.3
Netherlands, The	14.0	23.6	30.5	26.0	15.4	20.0	23.3	38.5	18.9	25.9	11.9	7.6
New Zealand	1.7	7.8	9.0	12.1	17.6	19.7	35.8	18.3	32.0	22.8	27.7	16.6
Norway	13.2	10.2	9.3	21.1	20.4	15.4	13.6	21.7	21.0	13.6	22.5	11.2
Portugal	11.4	2.5	3.2	3.1	2.7	2.9	2.6	5.2	3.4	3.0	3.6	6.7
Spain	6.9	16.1	11.3	12.2	13.2	14.5	21.0	13.7	15.5	20.7	24.4	14.0
Sweden	10.3	16.9	10.6	17.7	25.3	15.7	15.6	19.7	13.3	11.7	10.8	12.4
Switzerland	5.9	18.8	20.1	16.9	9.5	8.8	6.7	5.8	5.6	9.4	9.5	11.0
United Kingdom	28.8	32.4	22.6	29.4	22.9	40.1	24.7	35.6	32.8	19.0	21.2	14.2
United States	25.0	18.6	25.4	26.5	22.6	17.1	23.5	26.6	33.4	33.2	34.9	34.2

... = Data not available at cutoff date, ODA = official development assistance.

a Greece is not an ADB member country.

Source: Organisation for Economic Co-operation and Development (OECD 2012).

## Goal 8 Targets and Indicators

Table 8.2 **Target 8.B: Address the special needs of least developed countries**

Development Assistance Committee Members	8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied												
	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Australia	32.8	...	77.4	59.3	56.7	67.2	77.1	71.9	91.7	98.4	96.7	90.8	...
Austria	32.1	25.0	59.2	...	69.0	50.6	46.3	88.6	89.4	86.4	81.6	55.2	67.7
Belgium	...	...	85.7	89.8	92.6	99.1	92.7	95.7	90.7	92.0	91.9	95.5	93.2
Canada	46.6	40.8	24.9	31.7	61.4	52.6	56.7	66.5	63.0	74.6	90.8	98.3	99.3
Denmark	...	61.3	80.5	93.3	82.1	71.5	88.8	94.5	95.3	95.5	98.5	96.6	93.5
Finland	31.5	75.8	89.5	87.5	82.5	85.8	...	95.1	86.5	90.7	92.3	90.3	84.3
France	63.6	58.4	68.0	66.6	91.5	93.1	94.2	94.7	95.6	92.6	81.9	89.5	96.6
Germany	61.8	60.3	93.2	84.6	86.6	94.6	92.2	93.0	93.3	93.4	98.2	97.1	96.0
Greece <sup>a</sup>	...	...	23.5	17.3	13.9	93.8	23.0	73.6	39.1	42.3	37.9	49.8	62.2
Ireland	...	...	...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Italy	21.7	59.8	38.2	7.8	...	...	...	92.1	77.0	59.8	78.0	56.2	58.5
Japan	88.9	96.3	86.4	81.8	82.8	96.1	94.4	89.7	95.6	95.1	96.5	94.8	93.7
Korea, Rep. of	...	...	0.8	1.5	1.6	2.5	4.2	2.6	1.9	24.7	35.8	48.4	35.7
Luxembourg	...	0.0	96.7	...	...	...	...	99.1	100.0	100.0	100.0	100.0	99.0
Netherlands, The	55.5	78.9	95.3	91.2	88.6	82.0	86.8	96.2	100.0	81.1	93.2	80.8	92.9
New Zealand	100.0	...	...	...	76.0	81.4	81.2	92.3	90.2	87.8	92.7	90.1	89.4
Norway	61.3	77.0	97.7	98.9	99.1	99.9	100.0	99.6	99.8	99.9	100.0	100.0	100.0
Portugal	...	98.1	98.2	57.7	33.0	93.7	99.2	60.7	61.3	43.2	76.4	28.1	32.9
Spain	...	0.0	47.2	68.9	59.9	55.8	67.7	86.6	82.8	89.1	69.1	76.6	76.2
Sweden	87.5	93.9	85.4	96.5	87.6	100.0	99.4	98.3	100.0	100.0	99.9	99.9	100.0
Switzerland	78.5	91.3	93.6	96.1	95.1	96.4	96.8	98.0	96.3	97.8	97.3	99.2	74.0
United Kingdom	...	86.2	91.5	93.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
United States	...	...	...	...	...	...	...	...	63.5	68.5	74.7	69.8	69.5

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Greece is not an ADB member country.

Source: Organisation for Economic Co-operation and Development (OECD 2012).

## Goal 8 Targets and Indicators

Table 8.3 Target 8.C Address the special needs of landlocked developing countries and small island developing states

8.4 ODA received in landlocked developing countries and in small island developing states as a proportion of their gross national incomes													
ADB Regional Members	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Landlocked Developing Countries</b>													
Afghanistan	...	...	...	16.67	32.52	33.49	40.46	41.57	36.08	48.75	45.80	...	...
Armenia	0.13 (1991)	14.84	10.99	9.70	12.16	8.75	6.88	3.38	3.27	3.69	2.49	6.04	3.60
Azerbaijan	0.60 (1993)	3.93	2.79	4.28	5.97	4.40	2.20	1.87	1.13	0.81	0.57	0.58	0.33
Bhutan	15.45	24.43	12.68	13.28	14.62	13.11	11.36	11.16	11.28	7.54	7.03	10.20	9.23
Kazakhstan	0.45 (1991)	0.32	1.11	0.75	0.80	1.01	0.66	0.45	0.24	0.23	0.29	0.29	0.18
Kyrgyz Republic	0.91 (1992)	17.51	16.67	12.82	11.99	10.78	12.39	11.29	11.15	7.32	7.29	6.96	8.34
Lao PDR	17.22	17.46	16.86	14.41	15.77	14.79	11.20	11.57	11.20	9.78	9.53	7.08	5.88
Mongolia	0.52	14.66	19.17	16.87	14.93	15.91	13.02	8.88	6.03	5.77	4.52	8.45	5.47
Nepal	11.62	9.73	7.00	6.96	5.67	7.38	5.86	5.20	5.76	5.81	5.49	6.55	5.17
Tajikistan	0.62 (1992)	5.50	14.99	16.05	14.46	10.12	12.67	11.26	8.84	6.11	5.65	8.32	7.71
Turkmenistan	0.27 (1992)	1.23	1.29	2.19	1.01	0.48	0.81	0.40	0.42	0.24	0.11	0.23	0.22
Uzbekistan	0.01 (1992)	0.63	1.37	1.37	1.98	1.94	2.05	1.19	0.88	0.76	0.68	0.58	0.59
<b>Small Island Developing Countries</b>													
Fiji	3.84	2.30	1.70	1.58	1.85	2.21	2.40	2.17	1.87	1.54	1.28	2.51	2.56
Kiribati	41.87	16.78	16.24	11.32	17.76	13.59	10.78	17.08	16.35	14.49	13.67	15.60	10.55
Maldives	43.20	63.18	17.40	22.55	23.35	16.65	18.21	46.25	22.84	20.14	27.43	19.08	51.19
Marshall Islands	10.76	33.24	42.78	53.91	40.86	37.12	31.34	33.33	30.41	28.13	28.96	32.01	48.62
Micronesia, Fed. States of	3.74	31.81	41.49	57.51	45.49	45.93	35.00	40.91	40.70	42.03	34.18	40.93	40.56
Palau	0.00 (1991)	145.12	31.21	26.40	25.28	20.32	14.01	15.82	23.51	13.42	31.19	27.88	19.76
Papua New Guinea	13.32	8.47	8.33	7.16	7.42	7.04	7.54	5.89	5.66	5.18	3.81	5.24	5.52
Samoa	28.94	22.31	11.05	17.50	14.71	11.37	8.41	11.22	10.88	7.81	7.18	16.08	27.12
Singapore	-0.01	0.02	0.00	0.00	0.01	0.01	...	...	...	...	...	...	...
Solomon Islands	22.02	14.87	15.67	14.58	7.71	18.12	32.03	47.77	44.37	44.76	40.67	43.51	61.38
Timor-Leste	...	...	71.56	69.22	74.76	56.30	35.80	26.59	21.51	16.48	9.70	8.97	10.72
Tonga	25.54	18.83	9.85	12.25	12.26	13.24	8.01	12.32	7.16	9.88	7.23	11.80	19.48
Vanuatu	30.46	21.02	17.10	12.06	10.56	10.60	10.83	10.38	11.39	10.97	15.05	17.38	15.28

... = Data not available at cutoff date, 0.00 = Magnitude is less than half of unit employed, ODA = official development assistance.

Source: Organisation for Economic Co-operation and Development (OECD 2012).

## **PART III**

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# **Regional Trends and Tables**





## Introduction to the Regional Trends and Tables

The 2012 issue of *Key Indicators* contains 112 regional tables illustrating economic, social, and environmental developments in Asia and the Pacific region. The regional trends and tables are grouped into seven themes containing a number of subtopics. Each theme has a brief analysis of key trends of selected indicators highlighting important recent developments. The analyses are illustrated by charts and figures that compare indicators for Asian Development Bank (ADB) member economies for the latest year available, e.g., 2005 or later; and often, the latest year is compared with an earlier year such as 1990 or 2000.<sup>1</sup>

The seven themes are as follows: People; Economy and Output; Money, Finance, and Prices; Globalization; Transport, Electricity, and Communication; Energy and Environment; and Government and Governance.

**People** presents (1) standard demographic indicators such as the size and growth of the population; birth, death, and fertility rates; and life expectancy; and (2) information on international migration, urbanization, employment and unemployment, and health and education resources. The section also includes statistics on the extent of poverty at \$2-a-day in the region and the human development index (HDI), which combines a range of economic and social statistics into an index number reflecting the overall level of well-being in each economy.

The theme evaluates the distribution of population across and within the region and the share of the region's urban population in that of the world. The discussion also deals with the variations of total fertility rates and achievements in the HDI report. A topic on aging population is likewise discussed in this issue.

Discussion on poverty, a relevant part of this theme, is included in the analysis of key trends for the *Millennium Development Goal 1: Eradicate extreme poverty and hunger*, which aims to halve, between 1990 and 2015, the proportion of people whose income is less than \$1-a-day. Goal 1 also includes data on the proportion of population below \$1-a-day. Education, another important part of this theme, is discussed in the analysis of key trends for the *Millennium Development Goal 2: Achieve universal primary education*, which aims to make sure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. Goal 2 also includes data on the proportion of pupils starting grade 1 who reach the last grade of primary school.

**Economy and Output** focuses on the levels and growth of gross domestic product (GDP); related statistics taken from the national accounts such as gross national income, value added, consumption expenditure, capital formation, exports and imports, and gross domestic saving; and related indicators on production.

This theme compares the relative size of economies both within the region and in the world as a whole using data on GDP adjusted by purchasing power parity (PPP). The Economy and Output section shows how the GDP shares of agriculture, industry, and services changed since 1990, and which economies are consuming more and which are investing more in capital for future growth.

**Money, Finance, and Prices** contains a wide range of tables on inflation and on monetary and financial statistics. These include data on money supply, interest rates, bank lending, and stock markets, which are now established in more than 20 economies in the region. The data also include official exchange rates and PPP conversion factors.

The discussion for this theme focuses on the growth of money supply, the yield on 90-day treasury bills, the level of nonperforming bank loans, inflation, and food consumer price indices (CPIs). The discussion also includes the role of a country's monetary policy framework in the movement of the country's inflation, the impact of increasing food prices on poverty, and the relative weight of the food CPI to the general CPI in selected economies in the region.

<sup>1</sup> When data are not available for some economies for the earlier year (and/or for the latest year), the title of the figure indicates this as, e.g., "2000 or nearest year (and/or 2011 or latest year)." The tables cited as sources for each figure give the actual years used.

**Globalization** gives the latest statistics on balance of payments, external trade, international reserves, capital flows, external indebtedness, and tourism.

In general, the theme discusses the impact on Asia and the Pacific region of recent economic and political developments in other parts of the world, especially on economic trends. It tackles the importance of trade to the region, trade in services in particular, as well as the importance of migrant workers' remittances and tourism to the region's economy. On external trade, the discussion shows how the region has progressed since 1990 in comparison with other developing regions of the world and the positive growth in capital flows for most economies in developing Asia that have data available.

**Transport, Electricity, and Communications** covers statistics on road and rail networks and on road motor vehicles and traffic injuries and fatalities. This theme also covers electricity consumption, electrification, electricity generation—which is growing rapidly in the region to support industrialization and household electrification—and the fuel sources used in generation, such as fossil fuels that emit carbon dioxide, and cleaner nuclear and hydropower sources. Statistics on telephone and internet subscriptions are also given.

This theme shows how computer use and broadband access are growing in the region, and the width of the digital divide between high- and low-income countries. The discussion also deals with the increased use of carbon fuels in the generation of electricity.

Analysis of trends on internet usage and ownership of fixed and cellular phones is presented as part of this theme.

**Energy and Environment** comprises statistics on energy productivity; supply and use of primary energy; and indicators related to the environment, which includes land use, forest resources, and air and water pollution.

This theme compares the energy demand of economies within the region and in the world as a whole and discusses the improvement in energy efficiency in the region. A new topic introduced in this issue is on fossil-fuel consumption subsidy rates. The theme also discusses the region's rising greenhouse gas emissions.

Discussion of deforestation, which is also an important aspect of this theme, is included in the analysis of key trends for *Millennium Development Goal 7: Ensure environmental stability*, which seeks to integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources. Goal 7 also includes data on forests, protected areas, carbon dioxide emissions, and consumption of ozone-depleting substances.

**Government and Governance** contains statistics on tax revenues, government fiscal balances, and government expenditures on health and education services and on social security and welfare, as ratios of GDP. It also includes statistics on the cost involved and the time required to register a new business, and the corruption perception index.

The theme discusses the performance of the economies in collecting taxes and in managing their budgets as reflected in their fiscal balances. The section mentions the spending priorities of the economies in the region. The theme also discusses the improvement in cost and time required to start a business in the region, and presents the perception of corruption in the region.

## People

### Snapshots

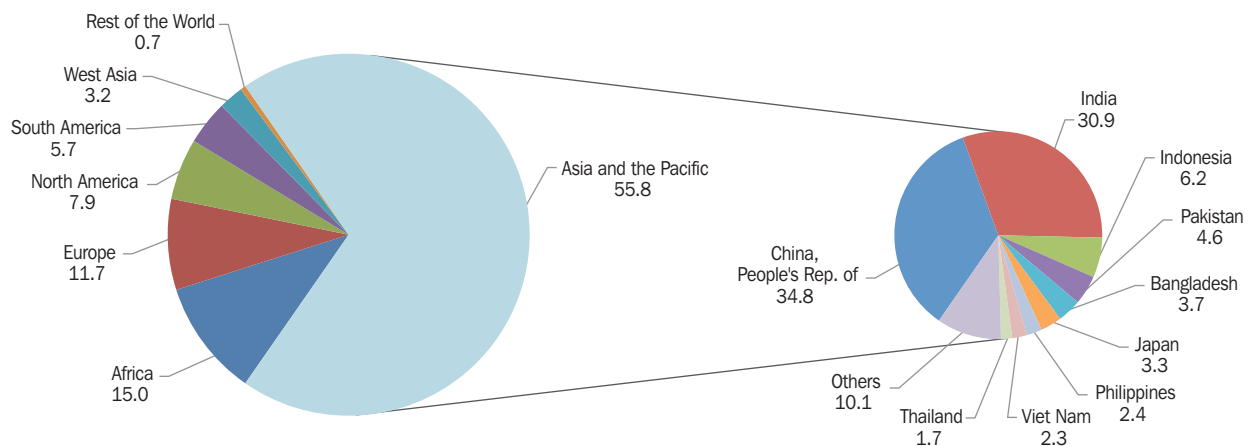
- In 2011, 3.9 billion people lived in Asia and the Pacific region—about 56% of the world’s population.
- The region’s population is projected to peak in 2050 and then fall to 4.0 billion in 2100, at about the same level as 2011.
- Total fertility rates fell substantially in almost all the region’s economies during the last 20 years, from almost 4 children per woman in 1990 to about 3 in 2010. Except for Fiji and Palau, the total fertility rates in the Pacific economies are greater than 3 children per woman.
- High-fertility developing countries have rates ranging from 3 children per woman in the Philippines to 6 in Afghanistan. Low fertility rates are more common in higher income economies such as Hong Kong, China; the Republic of Korea; Singapore; Taipei,China; and Thailand.
- The region’s share of urban population in the world urban population will grow slightly, from 46.4% in 2011 to 47.2% in 2050.
- Of the world’s 23 megacities in 2011 (cities with at least 10 million people), 12 are found in Asia and by 2025, Asia is expected to have 21 megacities.
- Among the developing countries with very high dependency ratios are Afghanistan and Timor-Leste, with ratios of more than 90%, implying an almost 1:1 dependence. Developed countries such as Australia, Japan, and New Zealand have high proportions of economically inactive populations, ranging from 13% to 23%, which burdens government spending on education, pensions, and health care.
- Most economies have improved the state of their human development during the last 10 years, as measured by the human development index—Afghanistan, Cambodia, Myanmar, and Timor-Leste have made the most significant improvement.

### Key Trends

**More than half (about 56%) of the world’s population in 2011 lived in Asia and the Pacific, with a population of 3.9 billion.** The most populous economies in the region, the People’s Republic of China (PRC) and India, have almost 66% of the region’s population, with Indonesia and Pakistan together comprising an additional 10.8%

(Figure 1.1). Most of the economies whose share of the region’s total population is below 1% are the Pacific region countries (with shares of less than 0.1%) and transition economies from Central and West Asia (including Armenia, Georgia, the Kyrgyz Republic, and Turkmenistan, each with a share of about 0.1%).

Figure 1.1 Distribution of Population by Region, 2011 (%)



Sources: Table 1.1 and UNPD (2011b).



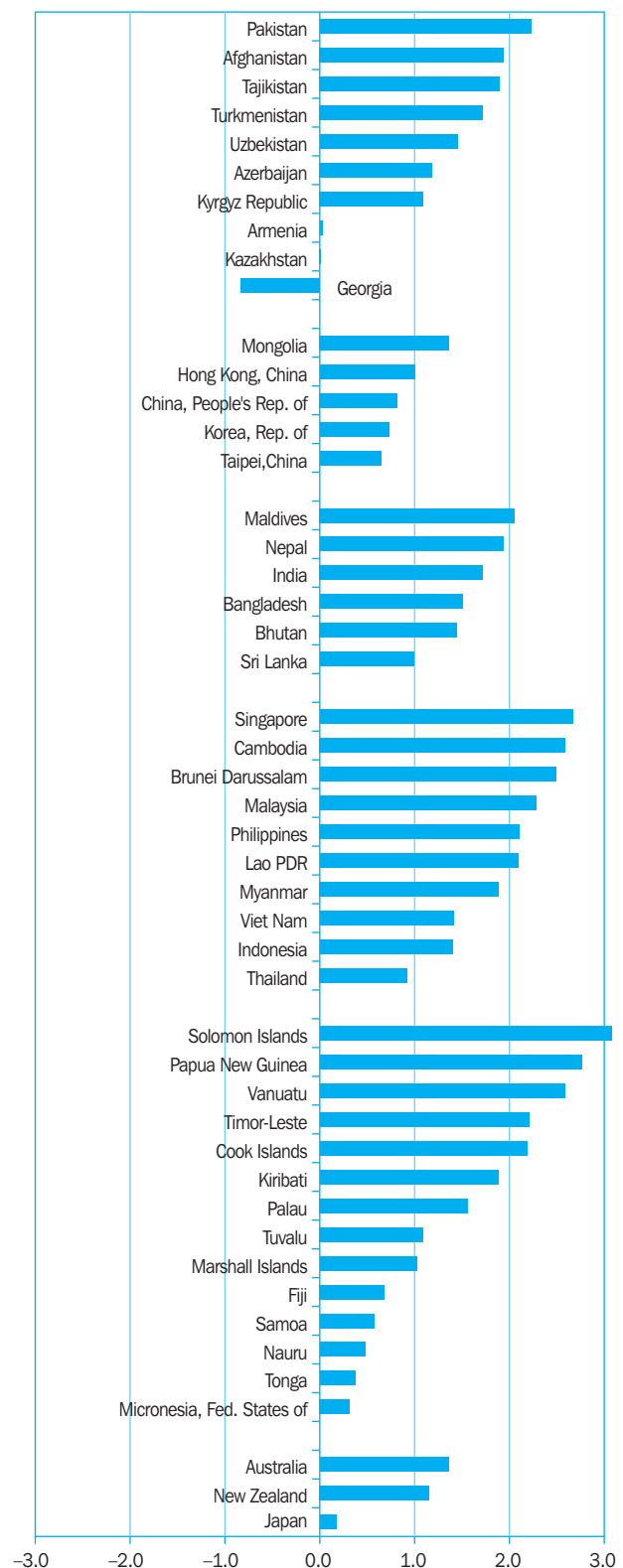
**During 1990–2011, the populations in most Southeast Asian economies grew rapidly,** particularly in Brunei Darussalam, Cambodia, the Lao PDR, Malaysia, and the Philippines, where the average annual population growth from 1990 to 2011 exceeded 2% (Figure 1.2). Singapore, a highly urbanized economy, posted an average annual growth of 2.7%. The high population growth in Singapore, a largely urban economy, can be attributed to increasing international migrants from neighboring countries—Indonesia, Malaysia, and the Philippines. From 2005 to 2010, Singapore had the region’s highest rate of international migration, at more than 30 persons per 1,000 population, which is more than double its rate during 2000–2005. From 1990 to 2011, the populations of Brunei Darussalam, Cambodia, Malaysia, and Singapore increased by more than 60%.

During 1990–2011, the three transition economies (Armenia, Georgia, and Kazakhstan) had very low population growth, which can be associated with shrinking of the human resource base and growth in the elderly population. The low population growth in Georgia, the Kyrgyz Republic, and Tajikistan, may be partly explained by the net emigration of 5–9 persons per 1,000 population.

The populations of the economies in the East Asia subregion (which include the higher income Hong Kong, China; the Republic of Korea; and Taipei, China) grew at annual rates of less than 1.4%, the lowest among the subregions in Asia and the Pacific. The East Asia subregion includes the PRC, which has a one-child policy and which grew at an annual rate of 0.8% during the period.

The annual population growth rates in South Asia during 1990–2011 have been in the range of 1.0% to 2.1%. For the three most populous countries in South Asia, the annual population growth rates were 1.5% in Bangladesh, 1.7% in India, and 2.2% in Pakistan. Generally, the population growth rates in the Pacific economies during the same period were 1.0%–3.1%. Fiji, the Federated States of Micronesia (FSM), Nauru, Samoa, and Tonga had rates below 1.0%. Some economies in the Pacific region had high rates of emigration between 2005 and 2010. In the FSM, Samoa, and Tonga, about 16–17 persons per 1,000 population left the country, while in Fiji and Timor-Leste, emigration was about 7–9 persons per 1,000 population. As these are countries have small populations, high emigration rates may mean a significant loss of human resources for the economy (Box 1.1).

Figure 1.2 Average Annual Population Growth Rate, 1990–2011 (%)

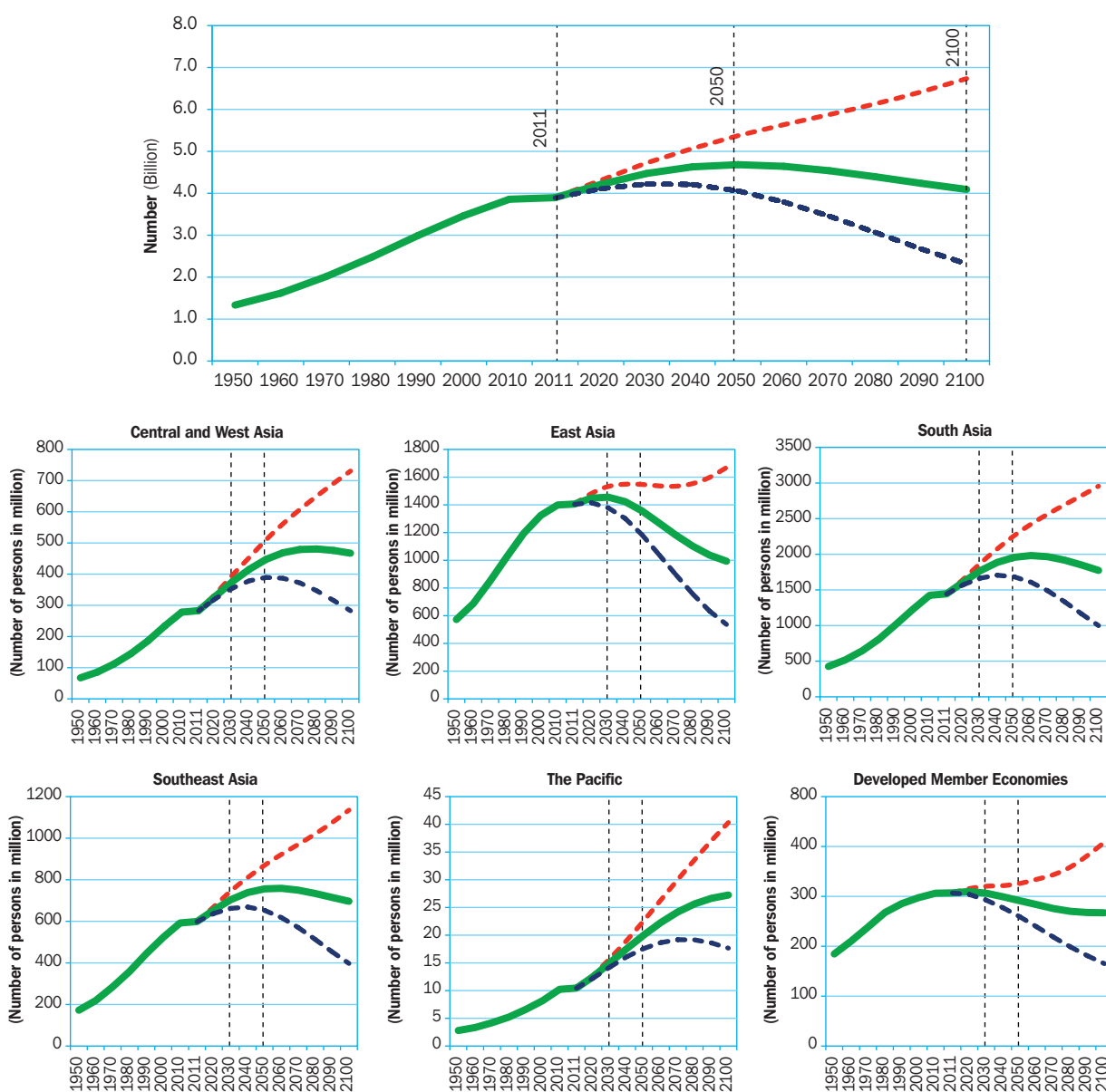


Source: Table 1.2.

Box 1.1 Population Projections, 2010–2100

The population of Asia and the Pacific will continue to increase and is expected to reach its peak of about 5 billion in 2050. By 2100, the region's total population is expected to fall to about 4.0 billion. Box Figure 1.1 shows the regional population projections until 2100 based on the medium-fertility variant, that is, population projections were computed based on the empirical fertility trends in countries where fertility is declining but is still above 2.1 children per woman in 2005–2010. The population in transition economies, particularly in West and Central Asia, and in the Pacific, are expected to grow faster than those in the other subregions by 2050. Meanwhile, the share of the People's Republic of China, Japan, and the Republic of Korea in the region's total population will fall to 8.1% by 2050, from 39.0% in 2011. The trend of declining population in East Asia will accelerate while in other subregions, the projected populations will slowly fall until 2100. Using the high-fertility variant (projections based on countries with no change in fertility rates) and the low-fertility variant (projections based on countries with total fertility at or below 2.1 children per woman), the UN Population Division projects that the population size in Asia and the Pacific could be as high as 7 billion or as low as 2 billion in 2100.

Box Figure 1.1 Asia and the Pacific Population Projections, 2011–2100



Note: Asia and the Pacific refers to 48 member countries of the Asian Development Bank.  
Source: UNPD (2011a).

**Total fertility rates, or the average number of children who would be born to a woman within her reproductive life, fell substantially in almost all economies in Asia and the Pacific during the last 20 years.** From almost 4 children in 1990, total fertility rates (TFRs) fell to about 3 children per woman by 2010.

Fertility levels also vary markedly among economies in Asia and the Pacific, as Figure 1.3 shows. Low fertility rates of less than 2 children per child-bearing woman were observed in 13 economies in 2010 or the latest years. These low-fertility economies include the developed countries Australia and Japan and the higher income member economies, such as those of East Asia, Singapore, and Thailand. The low fertility rates in these economies can be due to their economic development, higher educational attainment of women, higher opportunity costs of having children, and better access to reproductive health services.

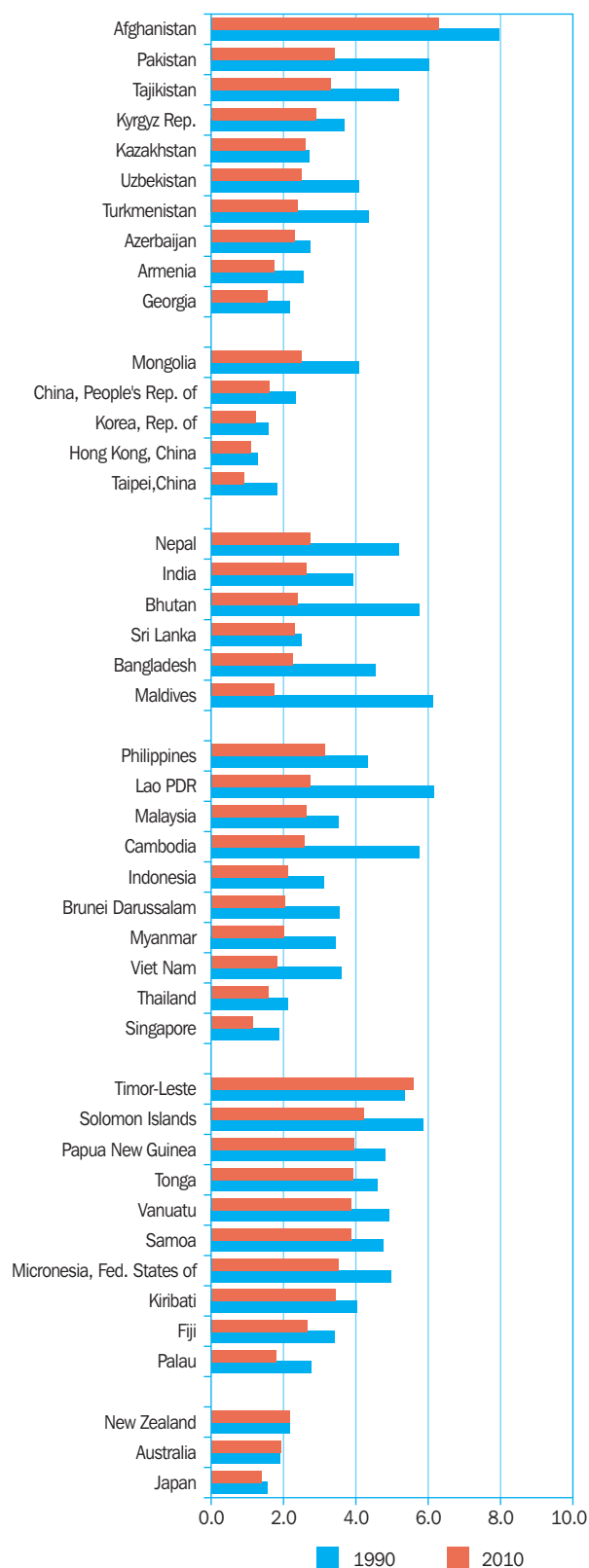
Some ADB developing members have high total fertility rates of 3 or more children per woman, which can lead to rapid population growth. The high-fertility countries include Afghanistan, Pakistan, the Philippines, and Tajikistan in West and Central Asia; and most of the Pacific economies. Most economies in South Asia and Southeast Asia have total fertility rates of 2–3 children per woman.

In 1990, 29 of the 44 ADB members had TFRs greater than 3 children per woman; in 2010, the number had been cut down by more than half, to 12 economies. The region's highest TFRs are in Afghanistan (6.3), the Solomon Islands (4.2), and Timor-Leste (5.6).

Some of the most populous countries in the region—Bangladesh, Nepal, and Pakistan—were among the economies with the largest decrease in TFR from 1990 to 2010. The number of children expected to be born to mothers in these countries was reduced by more than 2, and a decrease of more than 4 children was recorded in the Maldives. Economies with large populations (such as the PRC, India, and Indonesia) had reduced their child-bearing rates to 1 birth per woman. In Southeast Asia, Cambodia and the Lao PDR had reduced their births to less than 3 per woman in 2010 from about 6 in 1990. The Philippines, however, over the two decades was able to reduce its TFR by only 1 birth per woman, from 4.3 in 1990 to 3.1 in 2010. The Philippines had the highest total fertility rate in Southeast Asia in 2010.

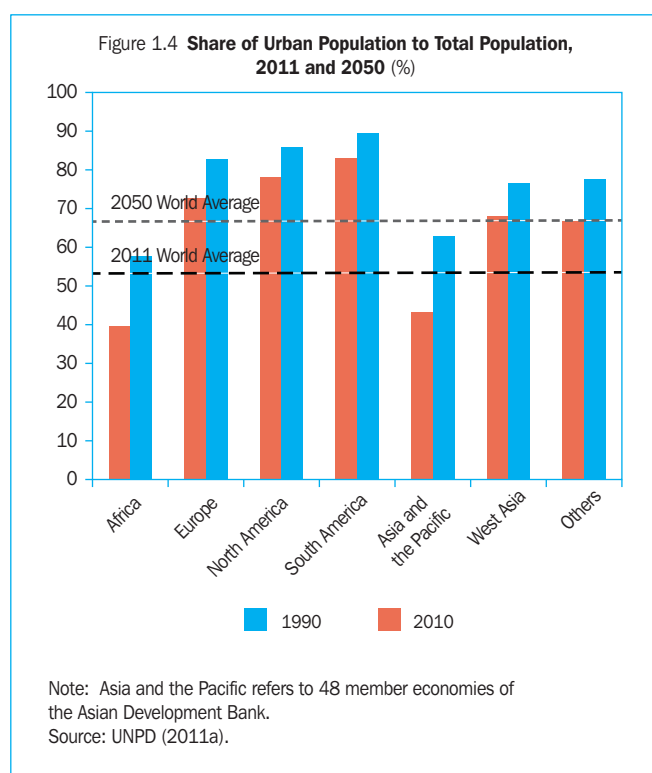
**The share of urban population in Asia and the Pacific to the world urban population is projected to grow from 46.4% in 2011 to 47.2% in 2050.** Africa and Asia together are projected to account for two-thirds of the world's urban dwellers by 2050. Likewise, the share of urban

Figure 1.3 Total Fertility Rate, 1990 and 2010 or Latest Year



Source: Table 1.17.

populations in Europe and in North and South America are projected to decline slightly, by about 10%, from 2011 to 2050. Figure 1.4 shows that the degree of urbanization in Asia and the Pacific was below the world average in 2011,



and is projected to remain so in 2050. Within Asia and the Pacific region, the process of urbanization is expected to continue for the next 40 years as the share of urban population in the region's total is expected to increase to more than 60%.

In 2011, at least 50% of the population in 24 Asian and Pacific economies live in urban areas. Three economies are fully urbanized (Hong Kong, China; Nauru; and Singapore) and five others (Brunei Darussalam, the Republic of Korea, Malaysia, the Marshall Islands, and Palau) are becoming more urbanized, with more than 70% of their populations living in urban areas. Conversely, in Nepal, Papua New Guinea (PNG), Samoa, and Sri Lanka, most people still live in the rural areas, with people in urban areas accounting for less than 20% of the countries' total populations.

Of the world's urban agglomerations with 750,000 or more inhabitants in 2011, approximately 22% lived in megacities (which have at least 10 million people). And 12 of the world's 23 megacities are in Asia. The number of megacities in the world is expected to increase to 37 by 2025, and Asia will have another 9 (Table 1.1). Migration from rural to urban areas has historically played a key role in the rapid growth of cities, together with the reclassification of rural localities into urban centers.

Table 1.1 **Largest Urban Agglomerations, 2011 and 2025** (millions)

2011		Population	2025 (continued)		Population
France	Paris	10.620	India	Hyderabad	11.647
China, People's Rep. of	Shenzhen	10.630	China, People's Rep. of	Tianjin	11.934
China, People's Rep. of	Guangzhou. Guangdong	10.849	Japan	Osaka-Kobe	12.031
Egypt	Al-Qahirah (Cairo)	11.169	France	Paris	12.163
Nigeria	Lagos	11.223	Russian Federation	Moskva (Moscow)	12.576
Turkey	Istanbul	11.253	China, People's Rep. of	Wuhan	12.727
Japan	Osaka-Kobe	11.494	India	Chennai (Madras)	12.814
Russian Federation	Moskva (Moscow)	11.621	Indonesia	Jakarta	12.822
Philippines	Manila	11.862	India	Bangalore	13.193
Brazil	Rio de Janeiro	11.960	Brazil	Rio de Janeiro	13.621
United States	Los Angeles-Long Beach-Santa Ana	13.395	China, People's Rep. of	Chongqing	13.627
Argentina	Buenos Aires	13.528	Democratic Republic of the Congo	Kinshasa	14.535
Pakistan	Karachi	13.876	Egypt	Al-Qahirah (Cairo)	14.740
India	Kolkata (Calcutta)	14.402	Turkey	Istanbul	14.897
Bangladesh	Dhaka	15.391	China, People's Rep. of	Guangzhou. Guangdong	15.474
China, People's Rep. of	Beijing	15.594	Argentina	Buenos Aires	15.524
India	Mumbai (Bombay)	19.744	China, People's Rep. of	Shenzhen	15.545
Brazil	São Paulo	19.924	United States	Los Angeles-Long Beach-Santa Ana	15.687
China, People's Rep. of	Shanghai	20.208	Philippines	Manila	16.278
United States	New York-Newark	20.352	India	Kolkata (Calcutta)	18.711
Mexico	Ciudad de México (Mexico City)	20.446	Nigeria	Lagos	18.857
India	Delhi	22.654	Pakistan	Karachi	20.190
Japan	Tokyo	37.217	China, People's Rep. of	Beijing	22.633
			Bangladesh	Dhaka	22.906
			Brazil	São Paulo	23.175
<b>2025</b>		<b>Population</b>	United States of America	New York-Newark	23.572
United Kingdom	London	10.255	Mexico	Ciudad de México (Mexico City)	24.581
Pakistan	Lahore	11.190	India	Mumbai (Bombay)	26.557
Thailand	Krung Thep (Bangkok)	11.235	China, People's Rep. of	Shanghai	28.404
Colombia	Bogotá	11.369	India	Delhi	32.935
United States	Chicago	11.434	Japan	Tokyo	38.661
Peru	Lima	11.503			

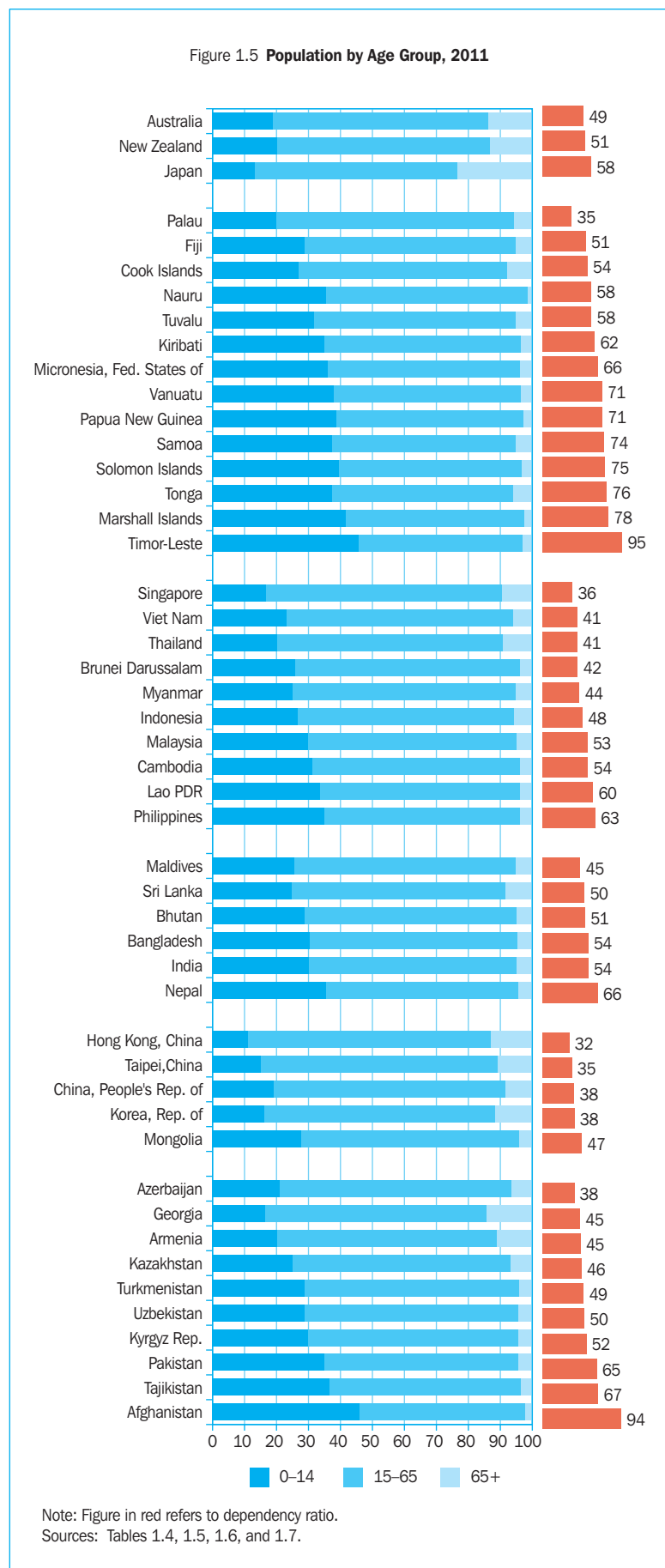
Sources: World Population Prospects. The 2010 Revision; World Urbanization Prospects. The 2009 Revision (UN Population Division. Department of Economic and Social Affairs 2012).

**Developing countries with very high age dependency ratios include Afghanistan and Timor-Leste, with ratios exceeding 90%.** This implies an almost 1:1 dependence, that is, 1 dependent for every 1 productive member of the economy. Most of the dependents are young (0–14 years), and comprise almost half of the total populations in these economies. The age dependency ratio is the ratio of people younger than 15 or older than 64 to the working-age population—people aged 15–64 (Figure 1.5).

The proportion of the working-age population is high in most economies with dependency ratios below 40%. Azerbaijan, Palau, Singapore, and the East Asian economies, except Mongolia, have low dependency ratios.

Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China have large proportions, relative to other economies in the region, of people 65+ years of age, which comprise about 9%–13% of their total populations. These economies also had the highest life expectancies at birth in 2010, of about 80–83 years. Armenia and Georgia also had high proportions of people in the 65+ age group. Developed countries such as Australia, Japan, and New Zealand have high ratios of economically inactive populations (13.3%–23.4%) that burden the government spending on education, pensions, and health care (Box 1.2).

**Most economies have improved their human development index (HDI) in the last 10 years, with the greatest improvement in Afghanistan, Myanmar, and Timor-Leste.** The HDI represents the average achievements of a country based on three basic dimensions of human development: life expectancy at birth, average of mean years of schooling and expected years of schooling, and per capita gross national income. Table 1.2 shows the HDI values and the average annual HDI growth rate during the 2000–2011 period. Australia, New Zealand, and Japan, ranked as highly developed economies and having very high human development, have annual rates of change in the HDI below 0.5%.



The most populous economies, with low to medium human development, have higher annual average increases—1.3% for Pakistan and 1.6% for India, and the PRC recorded an annual improvement of 1.4%. Although Afghanistan had the lowest HDI in 2011, it made the most significant improvement, posting an average annual HDI growth of 5% from 2000 to 2011. Similarly, Myanmar and Timor-Leste, which both have low human development in 2011, made notable improvements, posting HDI gains of 2.2% and 1.9%, respectively, in the same period.

Table 1.2 lists economies of Asia and the Pacific according to their rank under four human development classifications. Seven economies (Australia; Brunei Darussalam; Hong Kong, China; Japan; the Republic of Korea; New Zealand; and Singapore) are classified as having very high human development, with an index of over 0.800. At the other extreme are eight economies, including Pakistan and Bangladesh, that have low human development indices, at 0.510 and below. The three most populous economies (the PRC, India, and Indonesia) belong to the medium human development group.

#### Box 1.2 On Population Aging

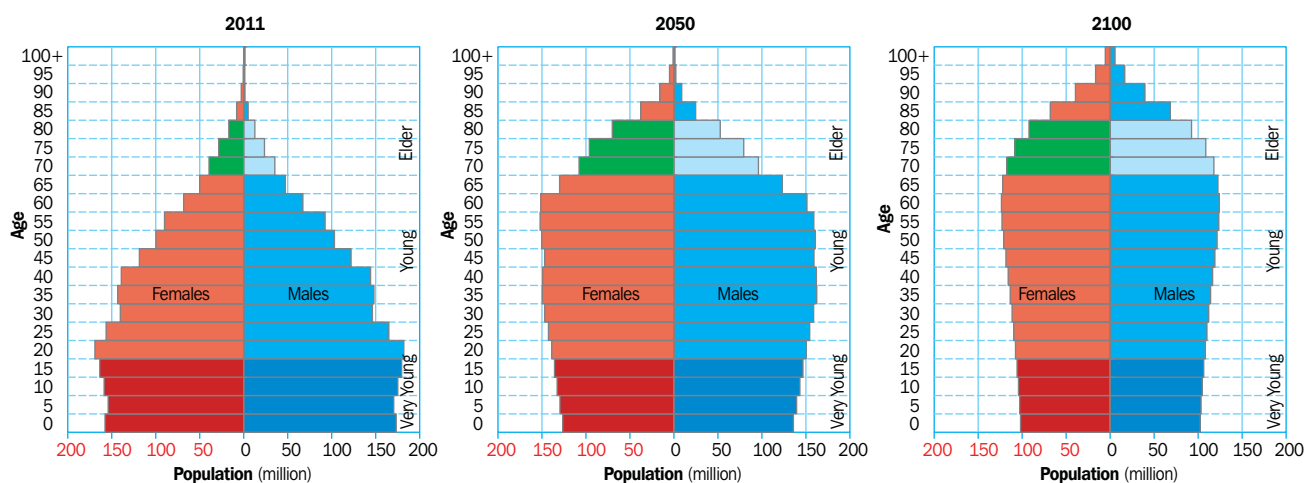
Population aging is a feature of the process known as the “demographic transition,” in which mortality and fertility shift from higher to lower levels. Decreasing fertility along with lengthening life expectancy has reshaped the age structure of the population in most regions of the planet by shifting the relative weight from younger to older groups (UNPD 2011b, 2002).

For Asia and the Pacific region, by 2050, the population 65 years and over is projected to reach 850 million. Based on the Asian Development Bank study, *Asia 2050: Realizing the Asian Century*, countries can be classified into three groups according to the demographics of their aging population, the country’s position relative to demographic inflection points, and the speed of transition (ADB 2011). The first group reflects the “old Asia,” notably the People’s Republic of China, Japan, and the Republic of Korea; the second group includes “young Asia” from the Southeast and South Asia subregions. Young Asia is considered highly varied in composition, from relatively older groups such as Indonesia and Thailand to roughly 10 years younger such as India and Viet Nam. The third group includes countries that are considered “very young” such as Afghanistan and Pakistan.

Box Figure 1.2 shows tier 2 (young) and 3 (very young) dominates the demographic composition in Asia and the Pacific in 2011 and have more males than females. In 40 years, the pace of aging becomes much faster as tier 2 continues to build its “elders” (tier 1). Declining fertility rates and improved life expectancy will continue to produce unprecedented change in the age structure of the societies. The result would be a decrease in the proportion of the young and an increase in the proportion of older groups.

An important concern is the continuous decline in the proportion of people able to be highly productive in achieving high income growth. A country that becomes too old before it becomes rich enough has problems: (1) with high old age dependency ratios, investments to achieve higher factor productivity are difficult to realize; and (2) costly economics, and social institutions are needed to achieve income security, adequate health care, and other needs for elderly populations (Lee, Mason, and Cotlier 2010).

Box Figure 1.2 Population Pyramids in Asia and the Pacific, 2011, 2050, and 2100



Note: Asia and the Pacific refers to 48 member economies of the Asian Development Bank.

Source: UNPD (2011b).

Table 1.2 Human Development Index, 2011

HDI rank	Country	2011	Average annual HDI growth 2000–2011	HDI rank	Country	2011	Average annual HDI growth 2000–2011
<b>VERY HIGH HUMAN DEVELOPMENT</b>				<b>MEDIUM HUMAN DEVELOPMENT</b>			
2	Australia	0.929	0.23	109	Maldives	0.661	1.27
5	New Zealand	0.908	0.31	110	Mongolia	0.653	1.49
12	Japan	0.901	0.33	112	Philippines	0.644	0.62
13	Hong Kong, China	0.898	0.78	115	Uzbekistan	0.641	...
15	Korea, Rep. of	0.897	0.72	116	Micronesia, Fed. States of	0.636	...
26	Singapore	0.866	0.71	122	Kiribati	0.624	...
33	Brunei Darussalam	0.838	0.22	124	Indonesia	0.617	1.17
<b>HIGH HUMAN DEVELOPMENT</b>				<b>LOW HUMAN DEVELOPMENT</b>			
49	Palau	0.782	0.09	125	Vanuatu	0.617	...
61	Malaysia	0.761	0.69	126	Kyrgyz Republic	0.615	0.59
68	Kazakhstan	0.745	1.15	128	Viet Nam	0.593	1.06
75	Georgia	0.733	...	134	India	0.547	1.56
86	Armenia	0.716	0.99	138	Lao PDR	0.524	1.44
90	Tonga	0.704	0.30	139	Cambodia	0.523	1.62
91	Azerbaijan	0.700	...	141	Bhutan	0.522	...
<b>MEDIUM HUMAN DEVELOPMENT</b>				<b>MEDIUM HUMAN DEVELOPMENT</b>			
97	Sri Lanka	0.691	0.80	142	Solomon Islands	0.510	0.58
99	Samoa	0.688	0.43	145	Pakistan	0.504	1.33
100	Fiji	0.688	0.27	146	Bangladesh	0.500	1.55
101	China, People's Rep. of	0.687	1.43	147	Timor-Leste	0.495	1.86
102	Turkmenistan	0.686	...	149	Myanmar	0.483	2.21
127	Tajikistan	0.607	1.30	153	Papua New Guinea	0.466	0.87
103	Thailand	0.682	0.78	157	Nepal	0.458	1.30
				172	Afghanistan	0.398	5.10

... = Data not available at cutoff date, HDI = Human development index.

Sources: Table 1.15 and *Human Development Report 2010 and 2011* (UNDP).

## Data Issues and Comparability

Demographic data are either based on vital registration records or on censuses and surveys. In many of the region's developing countries, vital registration records are incomplete and cannot be used for statistical purposes. Population censuses are conducted every 10 years in most countries (Box 1.3). For this reason, the growth rates are probably more reliable than the levels. The Population Division of the United Nations Department of Economics and Social Affairs used future trends on fertility, mortality, and international migration to project population numbers until 2100. The medium-fertility variant used assumes the fertility rates above 2.1 children per woman in 2005–2010 (UNPD 2011b).

Statistics on the urban population are compiled according to each economy's national definition, as there is no agreed international standard for defining an urban area. National estimates were used for urban ratios; where national estimates were not available, the World Urbanization Prospects 2011 was used. Data on numbers

of physicians and health resources are compiled by the World Health Organization and data on pupils, teachers, and education resources are compiled by the UNESCO Institute of Statistics from country sources. Household surveys are the best source for labor force data but these are not carried out in all countries. Some countries rely on census data supplemented by enterprise surveys and unemployment registration records. Unemployment registration records are often incomplete and breakdown by economic activities may not be available.

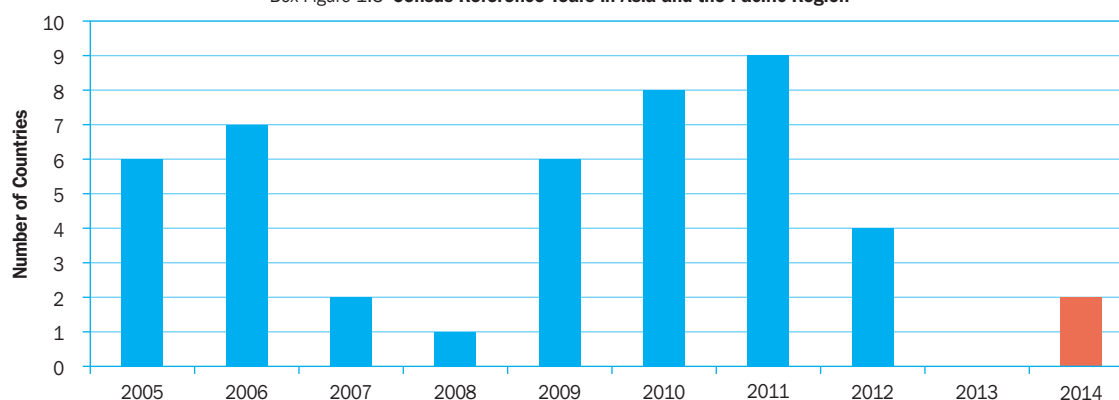
The statistics on the number of people infected with HIV/AIDS are estimates based on methods and on parameters developed by the UNAIDS Reference Group on HIV/AIDS Estimates, Modeling, and Projections. The estimates are presented together with ranges, called "plausibility bounds," where the wider the bound, the greater the uncertainty surrounding an estimate.

### Box 1.3 Population Census in Asia and the Pacific Region: An Update

The census of population and housing (CPH) provides an accurate view of a nation's population and housing dwellings. It gives the government a good basis for allocating resources and for organizing communities. It can also be used for objectively determining the representation of local government units in a national legislative body. The CPH is fundamental for deriving annual population projections that are important parts of economic indicators such as per capita gross national product and Millennium Development Goal indicators such as the net enrollment rate and the gender parity index. The CPH is also used to update the sampling frames for household surveys and to provide proxy variables for generating estimates of important indicators such as the poverty head count ratio at lower disaggregation levels.

The CPH, however, is very costly to implement; hence, many governments can only afford to conduct one every 10 years. Box Figure 1.3 summarizes when the most recent CPHs in the region were conducted. Forty-three regional members have conducted a CPH in the recent 7 years. Georgia and Myanmar plan to conduct CPHs by 2014; Pakistan and Uzbekistan have not scheduled a census.

Box Figure 1.3 Census Reference Years in Asia and the Pacific Region



Source: UNSD (2012).

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## Population

Table 1.1 Midyear Population  
(millions)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>	<b>190.0</b>	<b>212.8</b>	<b>232.4</b>	<b>236.2</b>	<b>239.1</b>	<b>245.0</b>	<b>249.0</b>	<b>251.6</b>	<b>255.8</b>	<b>263.1</b>	<b>268.0</b>	<b>273.0</b>	<b>278.0</b>	<b>283.3</b>
Afghanistan	17.6	19.4	21.5	21.9	22.3	22.8	23.2	23.7	24.2	24.5	25.0	25.5	26.0	26.5
Armenia	...	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3
Azerbaijan	7.2	7.7	8.1	8.2	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.1	9.2
Georgia	5.4	4.8	4.4	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.4	4.4	4.4	4.5
Kazakhstan	16.4	15.8	14.9	14.9	14.9	14.9	15.0	15.1	15.3	15.5	15.7	15.9	16.1	16.6
Kyrgyz Republic	4.4	4.5	4.9	4.9	5.0	5.0	5.1	5.1	5.2	5.3	5.3	5.4	5.4	5.5
Pakistan	109.7	124.5	140.0	142.9	144.8	149.7	152.5	154.0	156.8	162.9	166.4	169.9	173.5	177.1
Tajikistan	5.3	5.7	6.2	6.3	6.4	6.6	6.7	6.9	7.0	7.1	7.3	7.5	7.6	7.7
Turkmenistan	3.7	4.2	4.5	4.6	4.6	4.7	4.8	4.8	4.9	5.0	5.0	5.1	5.2	5.3
Uzbekistan	20.4	22.9	24.8	25.0	25.3	25.5	25.7	25.9	26.2	26.5	26.8	27.1	27.4	27.8
<b>East Asia</b>	<b>1214.5</b>	<b>1286.1</b>	<b>1345.8</b>	<b>1355.2</b>	<b>1363.9</b>	<b>1372.0</b>	<b>1379.9</b>	<b>1387.8</b>	<b>1395.2</b>	<b>1402.4</b>	<b>1409.6</b>	<b>1416.5</b>	<b>1423.2</b>	<b>1430.2</b>
China, People's Rep. of <sup>a</sup>	1143.3	1211.2	1267.4	1276.3	1284.5	1292.3	1299.9	1307.6	1314.5	1321.3	1328.0	1334.5	1340.9	1347.4
Hong Kong, China	5.7	6.2	6.7	6.7	6.7	6.7	6.8	6.8	6.9	6.9	7.0	7.0	7.0	7.1
Korea, Rep. of	42.9	45.1	47.0	47.4	47.6	47.9	48.0	48.1	48.4	48.6	48.9	49.2	49.4	49.8
Mongolia	2.2	2.2	2.4	2.4	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.8
Taipei, China	20.4	21.4	22.3	22.4	22.5	22.6	22.7	22.8	22.9	23.0	23.0	23.1	23.2	23.2
<b>South Asia</b>	<b>979.9</b>	<b>1080.7</b>	<b>1186.9</b>	<b>1202.8</b>	<b>1221.1</b>	<b>1240.4</b>	<b>1259.7</b>	<b>1278.0</b>	<b>1297.1</b>	<b>1315.7</b>	<b>1334.2</b>	<b>1352.7</b>	<b>1371.0</b>	<b>1389.2</b>
Bangladesh	109.0	118.8	128.1	125.1	126.7	128.4	130.2	131.9	133.7	135.5	137.3	139.1	141.0	142.9
Bhutan	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7
India	835.0	923.0	1016.0	1035.0	1051.0	1068.0	1085.0	1101.0	1117.7	1134.0	1150.2	1166.2	1182.1	1197.8
Maldives	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Nepal	18.1	20.0	22.6	23.2	23.5	23.8	24.2	24.5	24.8	25.2	25.5	25.9	26.3	26.6
Sri Lanka	17.0	18.1	19.4	18.7	19.0	19.3	19.5	19.6	19.9	20.0	20.2	20.5	20.7	20.9
<b>Southeast Asia</b>	<b>437.1</b>	<b>478.3</b>	<b>517.5</b>	<b>525.4</b>	<b>533.2</b>	<b>540.9</b>	<b>548.7</b>	<b>556.6</b>	<b>564.5</b>	<b>572.8</b>	<b>580.6</b>	<b>588.1</b>	<b>598.9</b>	<b>607.1</b>
Brunei Darussalam <sup>b</sup>	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Cambodia	8.6	10.5	12.5	12.6	12.8	13.0	13.1	13.3	13.5	13.7	13.9	14.1	14.3	14.5
Indonesia	179.4	194.8	205.8	208.6	211.4	214.3	217.1	219.9	222.7	225.6	228.5	231.4	237.6	241.6
Lao PDR	4.1	4.6	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.9	6.0	6.1	6.3	6.4
Malaysia	18.1	20.7	23.5	24.0	24.5	25.0	25.5	26.0	26.6	27.1	27.6	28.1	28.6	29.0
Myanmar	40.8	44.7	50.1	51.1	52.2	53.2	54.3	55.4	56.5	57.5	58.4	59.1	59.8	60.4
Philippines	60.9	68.4	76.8	78.4	79.9	81.5	83.1	84.7	86.3	87.9	89.4	91.0	92.6	94.2
Singapore	3.0	3.5	4.0	4.1	4.2	4.1	4.2	4.3	4.4	4.6	4.8	5.0	5.1	5.2
Thailand	55.8	59.4	62.2	62.8	63.4	64.0	64.5	65.1	65.6	66.0	66.5	66.9	67.3	67.6
Viet Nam	66.0	71.4	77.1	78.1	79.1	80.0	81.0	81.9	82.9	84.2	85.1	86.0	86.9	87.8
<b>The Pacific<sup>c</sup></b>	<b>6.1</b>	<b>7.1</b>	<b>7.9</b>	<b>8.1</b>	<b>8.4</b>	<b>8.6</b>	<b>8.8</b>	<b>9.0</b>	<b>9.2</b>	<b>9.4</b>	<b>9.6</b>	<b>9.9</b>	<b>10.1</b>	<b>10.4</b>
Cook Islands	17.0	19.4	17.9	18.1	18.4	18.4	20.3	21.5	23.8	21.0	21.9	22.6	23.6	25.6
Fiji	737.0	772.0	802.0	805.0	810.0	816.0	821.0	827.0	830.0	832.0	837.0	843.0	848.0	852.5
Kiribati	72.3	77.7	84.5	85.9	87.4	88.9	90.4	92.5	94.6	96.7	98.8	100.8	103.1	105.3
Marshall Islands	44.6	48.0	51.3	50.7	49.9	50.3	50.8	51.6	52.0	52.3	53.0	53.6	54.2	55.0
Micronesia, Fed. States of	97.6	105.8	107.0	106.6	106.2	105.8	105.4	104.9	104.5	104.0	103.6	103.1	102.6	120.6
Nauru	9.4	10.0	10.1	10.1	10.1	9.9	9.7	9.5	9.2	9.4	9.6	9.8	10.0	10.2
Palau	15.1	17.2	19.1	19.3	19.5	19.6	19.8	19.9	20.0	20.1	20.3	20.5	20.6	20.8
Papua New Guinea	3690.0	4426.7	5156.7	5301.1	5449.5	5602.1	5758.9	5920.2	6086.0	6256.4	6431.5	6611.6	6796.8	7000.0
Samoa	160.3	167.3	175.1	176.7	177.2	177.7	178.2	178.7	180.7	181.6	182.5	183.4	184.0	184.9
Solomon Islands	294.9	353.2	418.6	428.5	438.5	448.8	459.4	470.1	481.2	492.5	504.0	515.9	528.0	539.9
Timor-Leste	747.0	832.0	779.0	787.0	886.0	904.0	923.2	945.4	968.2	991.6	1015.5	1039.9	1066.6	1092.1
Tonga	96.0	97.4	99.1	99.5	99.9	100.4	100.8	101.2	101.6	102.0	102.4	102.9	103.3	103.7
Tuvalu	9.0	9.2	9.5	9.6	9.6	9.7	10.0	10.3	10.4	11.1	11.0	11.1	11.1	11.2
Vanuatu	147.3	168.4	191.7	196.9	202.2	206.9	212.3	217.8	223.5	229.4	235.4	238.9	245.4	251.8
<b>Developed Member Economies</b>	<b>143.9</b>	<b>147.2</b>	<b>149.9</b>	<b>150.4</b>	<b>151.0</b>	<b>151.6</b>	<b>152.0</b>	<b>152.3</b>	<b>152.6</b>	<b>153.1</b>	<b>153.5</b>	<b>153.8</b>	<b>154.1</b>	<b>154.9</b>
Australia	17.1	18.1	19.2	19.4	19.7	19.9	20.1	20.4	20.7	21.1	21.5	22.0	22.3	22.6
Japan	123.5	125.5	126.8	127.1	127.4	127.7	127.8	127.8	127.8	127.8	127.7	127.6	127.4	127.9
New Zealand	3.3	3.7	3.9	3.9	3.9	4.0	4.1	4.1	4.2	4.2	4.3	4.3	4.4	4.4
<b>DEVELOPING MEMBER ECONOMIES<sup>d</sup></b>	<b>2827.5</b>	<b>3064.7</b>	<b>3290.2</b>	<b>3327.5</b>	<b>3365.3</b>	<b>3406.4</b>	<b>3445.7</b>	<b>3482.6</b>	<b>3521.4</b>	<b>3563.0</b>	<b>3601.6</b>	<b>3639.7</b>	<b>3680.9</b>	<b>3719.8</b>
<b>REGIONAL MEMBERS<sup>d</sup></b>	<b>2971.4</b>	<b>3212.2</b>	<b>3440.4</b>	<b>3478.2</b>	<b>3516.7</b>	<b>3558.4</b>	<b>3598.0</b>	<b>3635.3</b>	<b>3674.4</b>	<b>3716.5</b>	<b>3755.5</b>	<b>3793.9</b>	<b>3835.4</b>	<b>3875.1</b>
<b>WORLD</b>	<b>5306.4</b>	<b>5726.2</b>	<b>6122.8</b>	<b>6200.0</b>	<b>6276.7</b>	<b>6353.2</b>	<b>6429.8</b>	<b>6506.6</b>	<b>6584.0</b>	<b>6661.6</b>	<b>6739.6</b>	<b>6817.7</b>	<b>6895.9</b>	<b>6974.0</b>

... = Data not available at cutoff date.

- a Population figures for the People's Republic of China refer to end-of-year populations.  
b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.  
c Population figures for the Pacific developing member countries are in thousands while the regional total for the Pacific are in millions.  
d For reporting economies only.

Sources: Country sources; World Population Prospects, The 2010 Revision (UN Population Division, Department of Economic and Social Affairs 2012).

## Population

Table 1.2 **Growth Rates in Population**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9
Armenia	...	...	-0.3	-0.2	-0.1	-0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4
Azerbaijan	1.4	1.2	1.1	1.0	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.2	1.1	1.3
Georgia	0.4	-2.8	-0.8	-0.8	-0.7	-0.7	-0.6	0.1	1.8	-0.1	-0.3	0.1	1.2	0.7
Kazakhstan	-1.6	-2.0	-0.3	-0.2	0.0	0.3	0.6	0.9	1.1	1.1	1.2	1.4	1.5	2.7
Kyrgyz Republic	2.0	0.6	1.4	0.9	0.9	0.9	1.2	1.2	1.0	1.1	0.7	1.2	1.3	1.1
Pakistan	2.7	2.5	2.3	1.9	2.1	2.0	1.9	1.9	1.8	1.8	2.1	2.1	2.1	2.1
Tajikistan	2.3	1.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	1.6	1.8
Turkmenistan	1.7	2.2	1.3	1.4	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.4	1.4	1.3
Uzbekistan	...	2.0	1.3	1.1	0.9	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.2	1.1
<b>East Asia</b>														
China, People's Rep. of	1.4	1.1	0.8	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Hong Kong, China	0.3	2.0	0.9	0.7	0.4	-0.2	0.8	0.4	0.6	0.9	0.6	0.2	0.7	0.7
Korea, Rep. of	1.0	1.0	0.8	0.7	0.6	0.5	0.4	0.2	0.5	0.5	0.7	0.5	0.5	0.7
Mongolia	2.4	1.4	1.7	1.2	1.6	0.8	1.2	1.2	1.2	1.9	1.5	1.9	1.8	1.7
Taipei, China	1.2	0.9	0.8	0.6	0.5	0.4	0.4	0.4	0.5	0.4	0.3	0.4	0.2	0.3
<b>South Asia</b>														
Bangladesh	2.2	1.6	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Bhutan	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.9	1.9	1.9	1.8	1.8	1.8
India	2.1	2.1	1.8	1.8	1.5	1.6	1.6	1.5	1.4	1.5	1.4	1.4	1.4	1.3
Maldives	2.5	2.0	1.5	2.2	1.7	1.6	1.5	1.5	1.8	2.0	1.5	1.6	1.7	1.7
Nepal	2.1	2.5	2.5	2.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Sri Lanka	1.5	1.1	1.3	1.4	1.5	1.3	1.1	0.9	1.2	0.8	0.9	1.2	1.0	1.1
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	2.9	4.0	2.5	2.5	3.4	1.6	2.9	2.9	3.5	1.8	2.1	2.1	2.0	2.0
Cambodia	3.6	5.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	1.5	1.5
Indonesia	2.0	1.7	0.9	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.5	1.7
Lao PDR	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.2	2.2	2.2	2.0
Malaysia	2.5	2.8	2.5	2.3	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.4
Myanmar	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.8	1.5	1.3	1.1	1.0
Philippines	2.3	2.3	2.3	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7
Singapore	2.9	3.1	1.7	2.7	0.9	0.2	1.3	2.4	3.2	4.3	5.5	3.1	1.8	2.1
Thailand	1.1	1.2	0.7	1.0	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.6	0.6	0.4
Viet Nam	1.9	1.7	1.4	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.0
<b>The Pacific</b>														
Cook Islands	3.0	-0.5	9.1	1.1	1.7	0.0	10.3	5.9	10.7	-11.8	4.3	3.2	4.4	8.5
Fiji	0.7	1.7	0.6	0.4	0.6	0.7	0.6	0.7	0.4	0.2	0.6	0.7	0.6	0.5
Kiribati	3.5	1.5	1.3	1.7	1.7	1.7	1.7	2.4	2.2	2.2	2.1	2.1	2.2	2.2
Marshall Islands	1.5	1.5	0.9	-1.2	-1.5	0.7	1.1	1.6	0.7	0.7	1.3	1.1	1.1	1.5
Micronesia, Fed. States of	2.0	0.2	0.2	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.0
Nauru	2.2	0.1	1.0	-0.2	-0.4	-1.9	-2.1	-2.2	-2.4	1.5	2.1	2.1	2.1	2.1
Palau	2.2	2.6	1.3	0.9	0.8	0.8	0.8	0.9	0.6	0.3	0.9	1.1	0.5	1.0
Papua New Guinea	2.2	3.1	3.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Samoa	0.5	1.0	0.8	0.9	0.5	0.4	0.3	0.3	0.5	0.5	0.5	0.5	0.3	0.5
Solomon Islands	3.6	3.8	2.8	2.8	2.8	2.8	2.8	2.8	2.3	2.3	2.3	2.3	2.3	2.3
Timor-Leste	6.7	1.7	9.0	1.0	12.6	2.0	2.1	2.4	2.4	2.4	2.4	2.4	2.6	2.4
Tonga	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Tuvalu	2.1	0.5	1.3	0.4	-0.2	1.3	3.1	3.1	1.4	6.7	-0.9	0.5	0.5	0.5
Vanuatu	2.7	2.6	2.7	2.7	2.7	2.3	2.6	2.6	2.6	2.6	2.6	1.5	2.7	2.6
<b>Developed Member Economies</b>														
Australia	1.5	1.2	1.2	1.4	1.2	1.2	1.2	1.3	1.5	1.8	2.0	2.1	1.6	1.4
Japan	0.3	0.2	0.2	0.2	0.2	0.2	0.0	0.0	-0.0	0.0	-0.1	-0.1	-0.1	0.4
New Zealand	0.9	1.5	0.6	0.6	1.8	2.0	1.5	1.1	1.2	1.0	1.0	1.1	1.2	0.9
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>1.8</b>	<b>1.5</b>	<b>1.4</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>1.7</b>	<b>1.5</b>	<b>1.3</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>
<b>WORLD</b>	<b>1.7</b>	<b>1.4</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b For reporting economies only.

Sources: ADB staff estimates based on country sources and World Population Prospects, The 2010 Revision (UN Population Division, Department of Economic and Social Affairs 2012).

## Population

Table 1.3 Migration and Urbanization

Regional Member	Net International Migration Rate <sup>a</sup> (per 1,000 population)				Urban Population (as % of total population)				
	1990–1995	1995–2000	2000–2005	2005–2010	1990	1995	2000	2005	2011
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	51.2	-3.5	7.7	-2.6	16.7	18.1	19.8	20.2	22.2
Armenia	-29.6	-14.3	-6.5	-4.9	...	66.3	64.8	64.1	64.0
Azerbaijan	-3.1	-3.2	1.3	1.2	53.7	52.3	51.1	52.5	52.9
Georgia	-20.7	-15.9	-13.4	-6.8	...	...	52.0	52.2	53.1
Kazakhstan	-18.6	-17.1	-2.9	0.1	...	55.7	56.3	57.1	54.7
Kyrgyz Republic	-12.2	-1.1	-10.0	-5.1	37.6	35.6	34.7	34.8	34.0
Pakistan	-2.5	-0.3	-2.3	-2.4	30.8 (1991)	29.5	46.1	52.4	65.3
Tajikistan	-10.7	-11.2	-13.4	-8.9	31.3	27.4	26.6	26.4	26.5
Turkmenistan	2.5	-2.3	-4.9	-2.2	45.1	44.8	45.9	47.0	48.7
Uzbekistan	-3.1	-3.4	-6.0	-3.9	40.3	38.3	37.2	36.1	51.4
<b>East Asia</b>									
China, People's Rep. of	-0.1	-0.1	-0.4	-0.3	26.4	29.0	36.2	43.0	51.3
Hong Kong, China	5.2	17.0	-0.3	5.1	99.5	100.0	100.0	100.0	100.0 (2010)
Korea, Rep. of	-2.9	-2.3	-0.4	-0.1	73.8	78.2	79.6	81.3	82.9 (2010)
Mongolia	-7.9	-4.9	-1.2	-1.1	54.6	51.6	57.2	60.2	66.2
Taipei, China <sup>b</sup>	...	...	...	...	50.6	53.1	55.8	57.7	59.5
<b>South Asia</b>									
Bangladesh	-1.9	-1.5	-2.2	-4.0	...	...	23.4 (2001)	24.2	25.4 (2008)
Bhutan	-37.5	0.1	11.4	4.9	...	...	21.0	30.9	...
India	-0.0	-0.1	-0.4	-0.5	25.6	26.6	27.7	28.8	31.2
Maldives	-2.6	-0.8	-0.1	-0.0	26.0	25.6	27.0	35.0	40.5 (2010)
Nepal	-1.0	-0.9	-0.8	-0.7	8.3	...	14.2 (2001)	16.7 (2006)	17.0
Sri Lanka	-2.9	-4.3	-1.0	-2.5	17.2	16.4	15.7	15.1	15.1 (2006)
<b>Southeast Asia</b>									
Brunei Darussalam <sup>c</sup>	3.1	3.5	2.0	1.8	65.8	68.6	71.1	73.5	75.7 (2010)
Cambodia	3.0	1.6	-1.8	-3.7	...	14.8 (1998)	16.0 (2001)	17.7	21.0
Indonesia	-0.8	-0.8	-1.1	-1.1	30.9	35.9	42.1	43.1	49.8 (2010)
Lao PDR	-1.3	-3.5	-4.2	-2.5	15.4	17.4	22.0	27.4	33.2 (2010)
Malaysia	3.3	3.8	3.2	0.6	51.1 (1991)	54.7	62.0	63.0	71.0 (2010)
Myanmar	-0.6	0.0	-4.4	-2.1	24.8	26.1	29.1	30.4	30.8
Philippines	-2.1	-2.1	-2.8	-2.8	51.9 (1993)	54.0	58.5	62.7	66.4 (2010)
Singapore	14.3	13.7	11.4	30.9	100.0	100.0	100.0	100.0	100.0
Thailand	-3.8	1.9	3.4	1.5	18.0	18.0	19.0	32.5	36.1
Viet Nam	-0.9	-0.8	-1.1	-1.0	19.5	20.7	24.2	27.1	31.7
<b>The Pacific</b>									
Cook Islands	...	...	...	...	58.5 (1991)	58.8 (1996)	67.6 (2001)	70.2 (2003)	...
Fiji	-9.5	-10.6	-15.1	-6.8	41.6	45.5	48.3	50.8	52.9 (2009)
Kiribati	...	...	...	...	35.1	36.5	43.5	43.6	48.5 (2010)
Marshall Islands	...	...	...	...	65.1	66.7	68.4	70.0	71.8 (2010)
Micronesia, Fed. States of	-4.4	-25.4	-17.9	-16.3	...	25.5 (1994)	22.3	...	...
Nauru	...	...	...	...	100.0	100.0	100.0	100.0	100.0
Palau	...	...	...	...	69.4	71.4	69.5	77.4	77.0 (2010)
Papua New Guinea	...	...	...	...	15.0	14.1	13.2	12.6	12.5
Samoa	-15.8	-17.4	-20.1	-17.3	21.2	21.5	22.0	21.2	19.9
Solomon Islands	-0.6	-0.4	...	...	13.7	14.7	15.8	17.8	20.5
Timor-Leste	-1.1	-38.6	8.8	-9.4	...	22.5	24.3	26.1	28.0 (2010)
Tonga	-23.2	-18.0	-16.4	-16.0	22.7	22.9	23.0	23.2	23.4
Tuvalu	...	...	...	...	40.7	44.0	46.1	48.1	50.6
Vanuatu	-0.1	-8.0	...	...	18.7	20.2	21.7	23.5	24.4
<b>Developed Member Economies</b>									
Australia	4.2	5.0	6.7	10.5	85.4	86.1	87.2	88.2	89.1 (2010)
Japan	0.7	0.0	0.1	0.4	63.1	64.6	65.2	66.0	66.8 (2010)
New Zealand	6.8	2.3	6.8	3.1	84.7	85.3	85.7	86.2	86.8 (2010)

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Refers to annual average.

b For urban population, refers to localities of 100,000 or more inhabitants.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Country sources; World Population Prospects, The 2010 Revision; World Urbanization Prospects, The 2009 Revision (UN Population Division, Department of Economic and Social Affairs 2012).

## Population

**Table 1.4 Population Aged 0–14 Years**  
(% of total population)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	46.6	47.4	48.0	48.0	48.0	47.9	47.8	47.6	47.4	47.2	47.0	46.7	46.4	46.2*
Armenia	30.0	29.1	25.5	24.7	23.8	23.0	22.2	21.6	21.0	20.5	20.1	19.8	19.6	20.1*
Azerbaijan	34.1	33.8	31.0	29.8	28.4	27.0	25.6	24.3	23.2	22.2	21.4	20.9	20.7	21.1*
Georgia	24.2	23.7	21.6	20.9	20.2	19.4	18.7	18.0	17.4	16.9	16.5	16.2	16.1	16.5*
Kazakhstan	31.1	29.4	27.4	26.7	25.9	25.2	24.5	24.0	23.8	23.7	23.8	23.9	24.2	25.0*
Kyrgyz Republic	37.2	37.2	34.8	34.0	33.2	32.4	31.6	31.0	30.5	30.2	30.0	29.9	29.8	30.0*
Pakistan	43.5	43.1	41.1	40.5	39.9	39.2	38.5	37.9	37.3	36.7	36.2	35.7	35.2	35.0*
Tajikistan	42.8	43.4	42.2	41.8	41.3	40.7	40.2	39.6	39.0	38.4	37.8	37.3	36.7	36.5*
Turkmenistan	40.2	39.3	36.1	35.4	34.7	34.0	33.2	32.5	31.7	30.9	30.2	29.5	29.0	28.8*
Uzbekistan	40.5	40.0	37.1	36.3	35.5	34.7	33.8	32.9	32.0	31.2	30.4	29.7	29.1	28.9*
<b>East Asia</b>														
China, People's Rep. of	27.8	27.0	25.2	24.6	23.8	23.1	22.3	21.6	21.0	20.5	20.0	19.6	19.2	19.1*
Hong Kong, China	21.2	19.1	16.9	16.3	15.7	15.1	14.5	13.8	13.2	12.6	12.0	11.5	11.1	11.3*
Korea, Rep. of	25.5	22.8	20.7	20.4	20.0	19.7	19.3	18.8	18.3	17.8	17.2	16.6	16.1	16.1*
Mongolia	40.2	38.6	35.1	33.9	32.6	31.3	30.1	29.1	28.4	28.0	27.7	27.5	27.4	27.8*
Taipei, China	27.1	23.8	21.1	20.8	20.4	19.8	19.3	18.7	18.1	17.6	17.0	16.3	15.6	15.1*
<b>South Asia</b>														
Bangladesh	42.3	40.0	37.1	36.5	35.9	35.3	34.7	34.1	33.5	32.9	32.3	31.7	31.1	30.6*
Bhutan	42.6	43.3	39.7	38.5	37.2	35.9	34.6	33.5	32.5	31.5	30.7	29.9	29.2	28.8*
India	37.8	36.4	34.5	34.1	33.7	33.3	32.8	32.4	32.0	31.6	31.2	30.8	30.4	30.2*
Maldives	46.8	46.0	40.3	38.8	37.2	35.6	34.0	32.5	31.1	29.7	28.5	27.4	26.4	25.8*
Nepal	42.2	41.8	40.9	40.6	40.3	40.0	39.6	39.1	38.6	38.0	37.4	36.7	36.0	35.5*
Sri Lanka	31.7	29.0	26.1	25.7	25.4	25.1	24.9	24.8	24.6	24.6	24.5	24.5	24.5	24.9*
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	35.2	33.3	30.2	29.7	29.3	28.8	28.4	28.0	27.6	27.2	26.8	26.4	26.0	25.9*
Cambodia	43.7	47.5	41.4	40.3	39.2	38.2	37.3	36.3	35.3	34.3	33.4	32.5	31.8	31.2*
Indonesia	36.3	33.7	30.6	30.1	29.7	29.3	28.9	28.6	28.2	27.9	27.5	27.2	26.8	26.7*
Lao PDR	43.5	43.6	42.1	41.6	41.1	40.4	39.7	38.9	38.0	37.1	36.2	35.2	34.3	33.7*
Malaysia	36.9	35.7	33.2	32.9	32.7	32.5	32.3	32.0	31.7	31.4	31.0	30.6	30.2	29.9*
Myanmar	35.8	33.4	30.5	29.9	29.4	28.8	28.3	27.8	27.3	26.8	26.3	25.9	25.4	25.2*
Philippines	41.0	39.9	38.3	38.1	37.8	37.6	37.3	37.0	36.7	36.4	36.0	35.7	35.3	35.0*
Singapore	21.3	22.3	21.2	20.9	20.5	20.1	19.7	19.3	18.9	18.4	18.0	17.6	17.1	16.8*
Thailand	29.9	27.2	23.7	23.3	23.0	22.7	22.4	22.1	21.7	21.4	21.0	20.6	20.2	20.2*
Viet Nam	37.8	36.5	31.8	30.8	29.8	28.9	28.0	27.0	26.2	25.3	24.5	23.8	23.3	23.2*
<b>The Pacific</b>														
Cook Islands	...	...	34.7	34.1	33.6	32.9	32.2	31.5	30.8	30.1	29.4	28.1	27.5	27.0*
Fiji	38.3	36.5	34.9	34.2	33.2	32.2	31.3	30.5	29.9	29.5	29.3	29.1	28.9	28.9*
Kiribati	...	...	40.6	40.0	39.2	38.3	37.5	37.0	36.5	36.1	35.8	35.5	35.2	34.9*
Marshall Islands	...	...	42.3	42.4	42.6	42.1	41.7	41.3	41.4	41.6	41.5	41.8	41.8	41.6*
Micronesia, Fed. States of	43.9	43.2	39.9	39.4	38.9	38.6	38.2	37.9	37.6	37.3	37.0	36.7	36.3	36.1*
Nauru	...	...	40.1	39.3	38.5	38.1	37.6	37.1	36.8	36.6	36.2	35.9	35.6	35.4*
Palau	...	...	23.9	24.1	24.2	24.3	24.3	24.2	23.5	22.7	21.9	21.1	20.3	19.9*
Papua New Guinea	42.1	40.7	40.1	40.1	40.1	40.0	39.9	39.9	39.7	39.6	39.4	39.2	38.9	38.8*
Samoa	40.7	39.1	40.3	40.3	40.2	40.0	39.7	39.4	39.1	38.7	38.3	37.9	37.5	37.4*
Solomon Islands	45.2	43.0	41.6	41.4	41.2	41.0	40.8	40.6	40.4	40.2	40.0	39.8	39.6	39.5*
Timor-Leste	39.4	41.9	49.2	49.3	48.8	47.9	47.1	46.6	46.3	46.3	46.4	46.3	46.1	45.8*
Tonga	39.1	39.2	38.0	37.9	37.8	37.8	37.8	37.7	37.6	37.4	37.3	37.1	37.0	37.4*
Tuvalu	...	...	37.1	36.9	36.3	36.0	35.2	34.4	33.9	32.4	32.6	32.3	32.1	31.8*
Vanuatu	43.6	42.4	41.2	40.9	40.6	40.3	40.0	39.7	39.4	39.0	38.7	38.4	38.1	37.9*
<b>Developed Member Economies</b>														
Australia	21.5	20.9	20.1	19.9	19.7	19.5	19.3	19.1	18.9	18.7	18.5	18.4	18.3	19.0*
Japan	17.9	15.6	14.1	13.9	13.7	13.5	13.3	13.2	13.0	12.9	12.8	12.7	12.6	13.3*
New Zealand	22.7	22.5	22.1	21.9	21.7	21.4	21.2	20.9	20.6	20.4	20.2	20.0	19.8	20.4*
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>33.7</b>	<b>32.6</b>	<b>30.7</b>	<b>30.1</b>	<b>29.6</b>	<b>29.0</b>	<b>28.5</b>	<b>28.0</b>	<b>27.5</b>	<b>27.0</b>	<b>26.6</b>	<b>26.2</b>	<b>25.8</b>	<b>25.8*</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>32.9</b>	<b>31.9</b>	<b>30.0</b>	<b>29.5</b>	<b>29.0</b>	<b>28.4</b>	<b>27.9</b>	<b>27.4</b>	<b>26.9</b>	<b>26.5</b>	<b>26.1</b>	<b>25.7</b>	<b>25.3</b>	<b>25.3*</b>
<b>WORLD</b>	<b>32.4</b>	<b>31.4</b>	<b>29.9</b>	<b>29.5</b>	<b>29.0</b>	<b>28.6</b>	<b>28.2</b>	<b>27.8</b>	<b>27.5</b>	<b>27.2</b>	<b>26.9</b>	<b>26.6</b>	<b>26.4</b>	<b>26.6*</b>

\* = Provisional/preliminary/estimate/budget figure, ... = Data not available at cutoff date.

a For 2011, the United Nations Population Division projected the countries' medium-fertility variant whose fertility is above 2.1 children per women in the 2005–2010 censuses.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c For reporting economies only.

Sources: World Population Prospects, The 2010 Revision (UN Population Division, Department of Economic and Social Affairs 2012); Statistics and Demography website (<http://www.spc.int/sdp/index.php>); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2012).

## Population

Table 1.5 **Population Aged 15–64 Years**  
(% of total population)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	50.9	50.2	49.6	49.6	49.6	49.7	49.8	50.0	50.2	50.4	50.6	50.9	51.2	51.6*
Armenia	63.3	61.3	63.4	63.7	64.1	64.3	64.6	65.0	65.4	65.9	66.3	66.7	66.9	68.9*
Azerbaijan	61.2	60.9	62.9	63.8	64.9	66.1	67.2	68.3	69.3	70.2	71.0	71.5	71.8	72.5*
Georgia	64.9	63.4	64.4	64.7	64.9	65.1	65.3	65.6	65.9	66.3	66.6	66.8	67.0	69.1*
Kazakhstan	62.0	62.3	64.9	65.4	65.9	66.3	66.7	67.1	67.4	67.7	67.9	68.0	67.9	68.3*
Kyrgyz Republic	56.9	56.5	59.2	59.8	60.5	61.2	61.9	62.6	63.2	63.7	64.2	64.6	64.9	65.7*
Pakistan	52.2	52.6	54.4	55.0	55.6	56.3	56.9	57.5	58.0	58.6	59.0	59.5	60.0	60.7*
Tajikistan	52.6	52.2	53.9	54.3	54.7	55.1	55.5	56.1	56.7	57.3	57.9	58.6	59.1	60.0*
Turkmenistan	55.4	56.0	59.1	59.7	60.3	61.0	61.6	62.4	63.2	64.0	64.8	65.6	66.1	67.1*
Uzbekistan	54.6	55.0	58.0	58.7	59.4	60.1	60.9	61.7	62.5	63.4	64.2	65.0	65.7	66.8*
<b>East Asia</b>														
China, People's Rep. of	65.5	65.7	66.8	67.3	67.9	68.6	69.2	69.8	70.2	70.6	70.9	71.2	71.4	72.5*
Hong Kong, China	68.9	69.8	70.4	70.5	70.7	71.0	71.3	71.6	72.0	72.4	72.8	73.0	73.2	75.7*
Korea, Rep. of	68.9	70.5	71.0	70.9	70.8	70.7	70.6	70.6	70.7	70.8	70.9	71.0	71.0	72.4*
Mongolia	54.8	57.1	60.7	61.8	63.1	64.3	65.5	66.4	67.0	67.4	67.7	67.8	67.9	68.1*
Taipei, China	66.7	68.6	70.3	70.4	70.6	70.9	71.2	71.6	71.9	72.2	72.6	73.0	73.6	74.0*
<b>South Asia</b>														
Bangladesh	53.5	55.6	58.4	58.9	59.5	60.0	60.5	61.1	61.6	62.1	62.6	63.1	63.7	64.8*
Bhutan	53.8	52.6	55.6	56.7	57.9	59.2	60.4	61.5	62.5	63.3	64.1	64.8	65.4	66.4*
India	58.0	59.2	60.8	61.1	61.4	61.8	62.1	62.5	62.8	63.1	63.5	63.8	64.1	64.8*
Maldives	50.0	50.7	55.6	56.9	58.3	59.7	61.0	62.3	63.6	64.8	65.9	66.9	67.7	69.0*
Nepal	54.2	54.5	55.2	55.4	55.7	56.0	56.3	56.7	57.1	57.6	58.2	58.8	59.4	60.3*
Sri Lanka	62.0	63.9	66.5	66.7	66.9	66.9	66.9	66.8	66.7	66.6	66.4	66.2	66.0	66.7*
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	61.5	63.7	66.5	66.9	67.3	67.6	68.0	68.3	68.6	68.9	69.3	69.5	69.8	70.5*
Cambodia	53.2	49.7	55.2	56.3	57.4	58.3	59.2	60.1	61.0	61.9	62.7	63.4	64.0	64.8*
Indonesia	59.5	62.2	64.3	64.7	65.0	65.2	65.5	65.7	66.0	66.2	66.5	66.7	66.9	67.7*
Lao PDR	52.5	52.8	53.8	54.3	54.8	55.4	56.1	56.9	57.7	58.6	59.5	60.4	61.3	62.4*
Malaysia	59.0	60.6	62.6	62.8	62.9	62.9	63.0	63.2	63.4	63.7	64.0	64.3	64.5	65.2*
Myanmar	59.4	61.9	64.1	64.6	65.1	65.6	66.1	66.6	67.1	67.5	67.9	68.3	68.7	69.6*
Philippines	55.5	57.1	58.1	58.3	58.5	58.7	59.0	59.2	59.5	59.8	60.1	60.4	60.7	61.3*
Singapore	72.3	71.4	70.3	70.3	70.4	70.5	70.7	70.9	71.2	71.5	71.8	72.1	72.3	73.7*
Thailand	64.8	67.1	68.4	68.5	68.6	68.6	68.6	68.7	68.8	68.9	69.1	69.3	69.4	70.7*
Viet Nam	56.6	58.4	61.8	62.6	63.5	64.4	65.2	66.1	66.9	67.7	68.4	69.1	69.5	70.8*
<b>The Pacific</b>														
Cook Islands	...	...	59.1	59.7	60.0	60.5	60.9	61.5	62.0	62.6	63.2	64.3	64.7	65.1*
Fiji	58.5	60.2	61.3	61.9	62.7	63.6	64.4	65.0	65.4	65.7	65.8	65.8	65.8	66.0*
Kiribati	...	...	55.9	56.5	57.2	58.2	58.9	59.5	60.0	60.4	60.7	61.0	61.3	61.6*
Marshall Islands	...	...	55.5	55.4	55.2	55.8	56.2	56.5	56.4	56.3	56.3	56.0	55.9	56.0*
Micronesia, Fed. States of	52.1	52.9	55.8	56.2	56.6	56.9	57.2	57.5	57.8	58.2	58.6	59.0	59.4	60.2*
Nauru	...	...	58.6	59.4	60.2	60.5	60.9	61.2	61.9	62.1	62.5	62.8	63.1	63.3*
Palau	...	...	70.7	70.5	70.3	70.1	70.0	70.3	71.0	71.8	72.6	73.3	74.0	74.3*
Papua New Guinea	55.3	56.7	57.1	57.1	57.2	57.2	57.2	57.3	57.3	57.5	57.6	57.8	58.0	58.4*
Samoa	55.0	56.2	54.7	54.7	54.7	54.8	55.0	55.2	55.4	55.7	55.9	56.3	56.6	57.5*
Solomon Islands	51.6	53.9	55.2	55.4	55.6	55.8	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.2*
Timor-Leste	58.6	55.8	48.3	48.1	48.6	49.4	50.1	50.6	50.7	50.7	50.6	50.5	50.7	51.2*
Tonga	55.7	54.7	55.4	55.5	55.4	55.3	55.3	55.3	55.4	55.5	55.7	55.8	55.9	56.7*
Tuvalu	...	...	57.0	57.3	58.3	58.6	59.4	60.2	60.7	62.4	62.2	62.5	62.8	63.1*
Vanuatu	52.3	53.4	54.8	55.2	55.5	55.9	56.2	56.6	56.9	57.2	57.5	57.8	58.0	58.6*
<b>Developed Member Economies</b>														
Australia	65.3	64.7	64.9	64.9	65.0	65.0	65.1	65.1	65.2	65.2	65.3	65.2	65.1	67.3*
Japan	68.1	67.5	65.8	65.3	64.8	64.3	63.8	63.3	62.7	62.1	61.5	60.9	60.2	63.3*
New Zealand	64.2	63.8	63.7	63.8	64.0	64.2	64.3	64.4	64.5	64.5	64.5	64.4	64.3	66.3*
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>61.0</b>	<b>61.8</b>	<b>63.2</b>	<b>63.6</b>	<b>64.0</b>	<b>64.5</b>	<b>64.9</b>	<b>65.4</b>	<b>65.7</b>	<b>66.1</b>	<b>66.4</b>	<b>66.7</b>	<b>67.0</b>	<b>67.8*</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>61.3</b>	<b>62.0</b>	<b>63.3</b>	<b>63.7</b>	<b>64.1</b>	<b>64.5</b>	<b>64.9</b>	<b>65.3</b>	<b>65.6</b>	<b>65.9</b>	<b>66.2</b>	<b>66.5</b>	<b>66.7</b>	<b>67.7*</b>
<b>WORLD</b>	<b>60.4</b>	<b>61.0</b>	<b>62.2</b>	<b>62.5</b>	<b>62.8</b>	<b>63.1</b>	<b>63.4</b>	<b>63.7</b>	<b>63.9</b>	<b>64.1</b>	<b>64.3</b>	<b>64.5</b>	<b>64.6</b>	<b>65.7*</b>

\* = Provisional/preliminary/estimate/budget figure, ... = Data not available at cutoff date.

a For 2011, the United Nations Population Division projected the countries' medium-fertility variant whose fertility is above 2.1 children per women in the 2005–2010 censuses.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c For reporting economies only.

Sources: World Population Prospects, The 2010 Revision (UN Population Division, Department of Economic and Social Affairs 2012); Statistics and Demography website (<http://www.spc.int/sdp/index.php>); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2012).

## Population

**Table 1.6 Population Aged 65 Years and Over**  
(% of total population)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3*
Armenia	6.7	9.6	11.1	11.6	12.1	12.7	13.1	13.5	13.6	13.7	13.6	13.5	13.5	11.0*
Azerbaijan	4.7	5.3	6.1	6.4	6.6	6.9	7.2	7.3	7.5	7.5	7.6	7.6	7.6	6.4*
Georgia	10.9	12.9	14.0	14.4	14.9	15.5	16.0	16.4	16.7	16.8	16.9	16.9	17.0	14.3*
Kazakhstan	6.9	8.4	7.8	7.9	8.2	8.5	8.8	8.9	8.8	8.6	8.3	8.1	7.9	6.7*
Kyrgyz Republic	5.9	6.3	6.1	6.1	6.2	6.4	6.4	6.4	6.3	6.1	5.8	5.6	5.3	4.3*
Pakistan	4.2	4.3	4.4	4.5	4.5	4.6	4.6	4.6	4.7	4.7	4.8	4.8	4.9	4.3*
Tajikistan	4.6	4.4	4.0	4.0	4.1	4.2	4.3	4.3	4.4	4.3	4.3	4.2	4.1	3.4*
Turkmenistan	4.4	4.7	4.8	4.9	5.0	5.1	5.1	5.2	5.1	5.1	5.0	4.9	4.8	4.1*
Uzbekistan	4.9	5.0	4.9	5.0	5.1	5.2	5.4	5.4	5.4	5.4	5.3	5.3	5.2	4.3*
<b>East Asia</b>														
China, People's Rep. of	6.7	7.3	8.0	8.1	8.3	8.4	8.5	8.6	8.8	8.9	9.1	9.2	9.4	8.4*
Hong Kong, China	9.9	11.0	12.8	13.2	13.5	13.9	14.3	14.6	14.8	15.0	15.2	15.4	15.7	13.0*
Korea, Rep. of	5.6	6.7	8.3	8.7	9.1	9.6	10.1	10.6	11.0	11.5	11.9	12.4	12.9	11.5*
Mongolia	5.0	4.4	4.3	4.3	4.3	4.4	4.4	4.5	4.5	4.6	4.6	4.7	4.7	4.1*
Taipei, China	6.2	7.6	8.6	8.8	9.0	9.2	9.5	9.7	10.0	10.2	10.4	10.6	10.7	10.9*
<b>South Asia</b>														
Bangladesh	4.2	4.3	4.6	4.6	4.7	4.7	4.8	4.9	5.0	5.0	5.1	5.2	5.2	4.6*
Bhutan	3.5	4.1	4.7	4.8	4.8	4.9	4.9	5.0	5.1	5.1	5.2	5.3	5.4	4.8*
India	4.2	4.4	4.7	4.8	4.9	5.0	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.0*
Maldives	3.2	3.4	4.1	4.3	4.5	4.8	5.0	5.2	5.4	5.5	5.6	5.7	5.8	5.3*
Nepal	3.6	3.7	3.9	3.9	4.0	4.1	4.1	4.2	4.3	4.4	4.5	4.5	4.6	4.2*
Sri Lanka	6.4	7.1	7.4	7.6	7.7	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.5	8.4*
<b>Southeast Asian</b>														
Brunei Darussalam <sup>b</sup>	3.3	3.0	3.3	3.4	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	3.7*
Cambodia	3.0	2.8	3.3	3.4	3.4	3.5	3.5	3.6	3.7	3.8	3.9	4.1	4.2	3.9*
Indonesia	4.2	4.1	5.1	5.2	5.3	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	5.6*
Lao PDR	3.9	3.6	4.1	4.1	4.1	4.2	4.2	4.3	4.3	4.3	4.3	4.3	4.4	3.9*
Malaysia	4.1	3.7	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.0	5.2	5.3	4.9*
Myanmar	4.9	4.7	5.5	5.5	5.6	5.6	5.6	5.6	5.7	5.7	5.7	5.8	5.8	5.2*
Philippines	3.5	3.1	3.6	3.6	3.7	3.7	3.7	3.8	3.8	3.9	3.9	4.0	4.0	3.7*
Singapore	6.5	6.3	8.6	8.8	9.1	9.4	9.6	9.8	9.9	10.0	10.1	10.3	10.6	9.4*
Thailand	5.4	5.7	7.9	8.2	8.5	8.8	9.0	9.3	9.5	9.7	9.9	10.1	10.4	9.1*
Viet Nam	5.6	5.1	6.5	6.6	6.6	6.7	6.8	6.9	6.9	7.0	7.0	7.1	7.2	6.0*
<b>The Pacific</b>														
Cook Islands	...	...	6.2	6.2	6.4	6.6	6.8	7.0	7.2	7.3	7.5	7.7	7.8	7.9*
Fiji	3.3	3.3	3.8	3.9	4.1	4.2	4.4	4.5	4.6	4.8	4.9	5.1	5.3	5.0*
Kiribati	...	...	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5*
Marshall Islands	...	...	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4*
Micronesia, Fed. States of	4.0	3.9	4.3	4.4	4.5	4.6	4.6	4.6	4.6	4.5	4.4	4.3	4.3	3.7*
Nauru	...	...	1.3	1.3	1.3	1.4	1.5	1.7	1.3	1.3	1.2	1.2	1.3	1.3*
Palau	...	...	5.4	5.5	5.5	5.6	5.7	5.5	5.5	5.5	5.5	5.5	5.7	5.8*
Papua New Guinea	2.5	2.6	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9	3.0	3.0	3.1	2.8*
Samoa	4.3	4.7	5.0	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	5.1*
Solomon Islands	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.4	3.4	3.5	3.2*
Timor-Leste	2.0	2.3	2.5	2.6	2.7	2.7	2.8	2.9	2.9	3.0	3.1	3.1	3.2	3.0*
Tonga	5.1	6.1	6.6	6.6	6.8	6.9	6.9	7.0	7.0	7.1	7.1	7.1	7.1	5.9*
Tuvalu	...	...	5.9	5.8	5.5	5.5	5.4	5.4	5.4	5.2	5.2	5.2	5.1	5.1*
Vanuatu	4.2	4.1	3.9	3.9	3.8	3.8	3.8	3.7	3.7	3.8	3.8	3.8	3.9	3.5*
<b>Developed Member Economies</b>														
Australia	13.2	14.4	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	16.6	13.7*
Japan	14.0	16.9	20.1	20.8	21.5	22.2	22.9	23.6	24.3	25.0	25.7	26.5	27.3	23.4*
New Zealand	13.0	13.7	14.2	14.2	14.3	14.4	14.5	14.7	14.9	15.1	15.3	15.6	15.9	13.3*
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>														
	<b>5.3</b>	<b>5.6</b>	<b>6.2</b>	<b>6.3</b>	<b>6.4</b>	<b>6.5</b>	<b>6.6</b>	<b>6.7</b>	<b>6.8</b>	<b>6.9</b>	<b>7.0</b>	<b>7.1</b>	<b>7.2</b>	<b>6.4*</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>														
	<b>5.8</b>	<b>6.1</b>	<b>6.7</b>	<b>6.9</b>	<b>7.0</b>	<b>7.1</b>	<b>7.2</b>	<b>7.3</b>	<b>7.4</b>	<b>7.6</b>	<b>7.7</b>	<b>7.8</b>	<b>7.9</b>	<b>7.0*</b>
<b>WORLD</b>														
	<b>7.2</b>	<b>7.6</b>	<b>8.0</b>	<b>8.1</b>	<b>8.2</b>	<b>8.3</b>	<b>8.4</b>	<b>8.5</b>	<b>8.6</b>	<b>8.7</b>	<b>8.8</b>	<b>8.9</b>	<b>9.0</b>	<b>7.7*</b>

\* = Provisional/preliminary/estimate/budget figure, ... = Data not available at cutoff date.

a For 2011, the United Nations Population Division projected the countries' medium-fertility variant whose fertility is above 2.1 children per women in the 2005–2010 censuses.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c For reporting economies only.

Sources: World Population Prospects, The 2010 Revision (UN Population Division, Department of Economic and Social Affairs 2012); Statistics and Demography website (<http://www.spc.int/sdp/index.php>); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2012).

## Population

Table 1.7 Age Dependency Ratio

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	96.4	99.3	101.6	101.6	101.5	101.1	100.6	100.0	99.3	98.5	97.6	96.5	95.3	93.9*
Armenia	58.0	63.1	57.8	56.9	56.1	55.5	54.8	53.9	52.9	51.8	50.8	50.0	49.5	45.2*
Azerbaijan	63.4	64.2	58.9	56.6	54.0	51.3	48.7	46.4	44.2	42.4	40.9	39.8	39.3	38.0*
Georgia	54.1	57.8	55.2	54.6	54.1	53.6	53.1	52.4	51.7	50.9	50.1	49.6	49.3	44.6*
Kazakhstan	61.3	60.6	54.1	52.9	51.7	50.7	49.8	49.0	48.3	47.7	47.3	47.1	47.2	46.4*
Kyrgyz Republic	75.8	77.0	69.0	67.1	65.2	63.3	61.5	59.8	58.3	56.9	55.8	54.9	54.1	52.3*
Pakistan	91.5	90.2	83.8	81.9	79.8	77.8	75.8	73.9	72.3	70.8	69.4	68.1	66.7	64.7*
Tajikistan	90.1	91.6	85.7	84.3	83.0	81.6	80.1	78.4	76.5	74.6	72.6	70.8	69.1	66.6*
Turkmenistan	80.6	78.6	69.3	67.5	65.7	64.0	62.2	60.3	58.3	56.2	54.2	52.5	51.2	49.0*
Uzbekistan	83.2	81.9	72.5	70.5	68.4	66.4	64.3	62.1	59.9	57.7	55.6	53.8	52.2	49.8*
<b>East Asia</b>														
China, People's Rep. of	52.7	52.2	49.7	48.6	47.3	45.9	44.5	43.4	42.4	41.6	41.0	40.5	40.1	37.9*
Hong Kong, China	45.2	43.2	42.1	41.8	41.4	40.9	40.3	39.7	38.9	38.1	37.4	36.9	36.7	32.1*
Korea, Rep. of	45.0	41.8	40.9	41.0	41.2	41.4	41.6	41.6	41.5	41.3	41.1	40.9	40.8	38.1*
Mongolia	82.4	75.2	64.8	61.8	58.6	55.5	52.7	50.6	49.2	48.3	47.7	47.5	47.3	46.8*
Taipei, China	49.9	45.8	42.3	42.1	41.7	41.0	40.5	39.7	39.1	38.4	37.7	36.9	35.8	35.1*
<b>South Asia</b>														
Bangladesh	86.8	79.7	71.4	69.8	68.2	66.7	65.2	63.8	62.4	61.1	59.8	58.4	57.1	54.4*
Bhutan	85.8	90.1	80.0	76.4	72.6	68.9	65.5	62.6	60.0	57.9	56.0	54.4	53.0	50.7*
India	72.4	68.9	64.6	63.7	62.7	61.8	60.9	60.0	59.2	58.4	57.6	56.8	56.1	54.4*
Maldives	100.0	97.4	79.7	75.6	71.6	67.6	63.9	60.4	57.3	54.4	51.8	49.6	47.6	45.0*
Nepal	84.5	83.6	81.2	80.4	79.6	78.7	77.6	76.4	75.0	73.5	71.9	70.2	68.5	65.8*
Sri Lanka	61.4	56.6	50.5	49.9	49.6	49.4	49.5	49.6	49.8	50.1	50.5	51.0	51.5	49.9*
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	62.7	56.9	50.4	49.4	48.6	47.9	47.2	46.5	45.8	45.1	44.4	43.8	43.3	41.9*
Cambodia	87.8	101.4	81.1	77.5	74.3	71.5	68.9	66.3	63.9	61.6	59.6	57.7	56.2	54.3*
Indonesia	68.0	60.8	55.5	54.6	53.9	53.3	52.7	52.1	51.6	51.0	50.4	49.9	49.4	47.8*
Lao PDR	90.3	89.3	85.8	84.2	82.5	80.5	78.3	75.9	73.3	70.6	68.0	65.5	63.1	60.3*
Malaysia	69.4	65.0	59.9	59.3	59.0	58.9	58.6	58.3	57.7	57.1	56.4	55.6	55.0	53.4*
Myanmar	68.5	61.5	56.1	54.9	53.7	52.4	51.3	50.2	49.1	48.1	47.2	46.4	45.5	43.8*
Philippines	80.2	75.3	72.2	71.5	70.9	70.2	69.6	68.9	68.1	67.3	66.5	65.7	64.9	63.2*
Singapore	38.4	40.0	42.3	42.3	42.1	41.9	41.5	41.0	40.4	39.8	39.2	38.7	38.3	35.6*
Thailand	54.4	49.0	46.3	46.0	45.8	45.8	45.8	45.7	45.4	45.1	44.7	44.3	44.1	41.3*
Viet Nam	76.7	71.2	61.9	59.7	57.5	55.3	53.3	51.3	49.4	47.7	46.1	44.8	43.8	41.3*
<b>The Pacific</b>														
Cook Islands	...	...	69.3	67.6	66.6	65.4	64.1	62.7	61.2	59.7	58.3	56.6	54.5	53.5*
Fiji	71.0	66.0	63.2	61.6	59.5	57.4	55.4	53.8	52.8	52.2	51.9	51.9	51.9	51.5*
Kiribati	...	...	79.0	77.1	74.7	71.9	69.7	68.0	66.6	65.5	64.6	63.9	63.1	62.3*
Marshall Islands	...	...	80.0	80.5	81.0	79.4	78.0	76.9	77.2	77.7	77.5	78.5	78.8	78.4*
Micronesia, Fed. States of	92.0	89.2	79.2	77.8	76.7	75.8	75.0	74.0	73.0	71.8	70.7	69.5	68.3	66.2*
Nauru	...	...	70.7	68.4	66.2	65.2	64.3	63.4	61.5	60.9	60.0	59.1	58.5	58.0*
Palau	...	...	41.4	41.9	42.3	42.7	42.8	42.2	40.8	39.3	37.7	36.4	35.2	34.7*
Papua New Guinea	80.7	76.4	75.1	75.0	75.0	74.9	74.8	74.6	74.4	74.1	73.6	73.1	72.4	71.3*
Samoa	81.8	78.1	82.7	83.0	82.9	82.5	81.9	81.2	80.5	79.7	78.8	77.8	76.7	73.8*
Solomon Islands	93.8	85.5	81.2	80.5	79.8	79.1	78.6	78.0	77.5	77.1	76.7	76.2	75.7	74.7*
Timor-Leste	70.7	79.2	107.2	107.9	105.9	102.6	99.6	97.8	97.2	97.3	97.8	97.9	97.1	95.3*
Tonga	79.4	82.9	80.4	80.3	80.4	80.7	80.9	80.9	80.6	80.2	79.7	79.1	78.8	76.4*
Tuvalu	...	...	75.4	74.6	71.6	70.7	68.4	66.1	64.8	60.3	60.7	60.0	59.2	58.4*
Vanuatu	91.4	87.2	82.3	81.2	80.0	78.9	77.8	76.7	75.8	74.8	74.0	73.1	72.3	70.8*
<b>Developed Member Economies</b>														
Australia	53.1	54.6	54.1	54.0	53.9	53.8	53.7	53.6	53.4	53.3	53.2	53.3	53.6	48.6*
Japan	46.8	48.1	52.1	53.1	54.2	55.4	56.7	58.0	59.5	61.0	62.6	64.3	66.2	57.9*
New Zealand	55.7	56.7	56.9	56.7	56.3	55.8	55.4	55.2	55.0	55.0	55.1	55.3	55.6	50.8*
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>64.0</b>	<b>61.9</b>	<b>58.3</b>	<b>57.3</b>	<b>56.2</b>	<b>55.1</b>	<b>54.0</b>	<b>53.0</b>	<b>52.1</b>	<b>51.3</b>	<b>50.6</b>	<b>49.9</b>	<b>49.3</b>	<b>47.4*</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>63.1</b>	<b>61.2</b>	<b>58.0</b>	<b>57.1</b>	<b>56.1</b>	<b>55.1</b>	<b>54.1</b>	<b>53.2</b>	<b>52.4</b>	<b>51.6</b>	<b>51.0</b>	<b>50.4</b>	<b>49.9</b>	<b>47.7*</b>
<b>WORLD</b>	<b>65.5</b>	<b>64.0</b>	<b>60.8</b>	<b>60.1</b>	<b>59.3</b>	<b>58.5</b>	<b>57.8</b>	<b>57.1</b>	<b>56.5</b>	<b>55.9</b>	<b>55.5</b>	<b>55.1</b>	<b>54.7</b>	<b>52.2*</b>

\* = Provisional/preliminary/estimate/budget figure, ... = Data not available at cutoff date.

a For 2011, the United Nations Population Division projected the countries' medium-fertility variant whose fertility is above 2.1 children per women in the 2005–2010 censuses.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c For reporting economies only.

Sources: ADB staff estimates derived from the World Population Prospects, The 2010 Revision (UN Population Division, Department of Economic and Social Affairs 2012).

## Labor Force and Employment

Table 1.8 **Labor Force Participation Rate**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	49.8	49.3	48.4	48.4	48.4	48.4	48.5	48.6	48.6	48.7	48.9	49.0	49.2	...
Armenia	...	74.2	61.4	58.7	62.7	61.4	58.6	57.7	55.9	54.5	54.1	52.3	52.7	...
Azerbaijan	93.2	85.8	77.6	75.5	73.6	71.7	69.9	68.4	67.1	66.4	65.4	65.1	64.8	64.5
Georgia	...	...	65.2	66.2	65.0	66.2	64.9	64.0	62.2	63.3	62.6	63.6	64.2	65.2
Kazakhstan	...	66.8	66.0	70.2	70.1	70.0	69.9	69.4	69.7	70.4	71.1	70.7	71.2	71.6
Kyrgyz Republic	66.0	65.7	64.9	64.6	64.3	64.0	63.6	64.7	65.6	65.8	65.9	66.1	66.4	...
Pakistan	...	41.3	42.8	43.3	43.3	43.3	43.7	43.7	46.0	45.2	45.2	45.7	45.9	45.7
Tajikistan	77.3	66.4	56.3	56.5	54.8	52.8	56.2	55.0	53.9	52.6	51.4	51.0	50.6	...
Turkmenistan	60.2	60.1	60.5	60.6	60.7	60.6	60.6	60.5	60.5	60.5	60.5	60.5	60.6	...
Uzbekistan	59.3	59.1	59.6	59.6	59.6	59.6	59.7	59.8	59.9	60.1	60.3	60.5	60.8	...
<b>East Asia</b>														
China, People's Rep. of	78.7	78.5	77.0	76.6	76.3	75.9	75.6	75.3	75.1	74.9	74.5	74.4	74.2	...
Hong Kong, China	63.2	62.0	61.4	61.5	61.7	61.4	61.3	60.9	61.2	61.2	60.9	60.8	59.6	60.1
Korea, Rep. of	60.0	61.9	61.0	61.4	62.0	61.5	62.1	62.0	61.9	61.8	61.5	60.8	61.0	61.1
Mongolia	...	68.5	62.9	62.2	62.7	64.5	64.4	63.5	64.4	64.2	63.5	66.8	61.6	62.5
Taipei, China	59.2	58.7	57.7	57.2	57.3	57.3	57.7	57.8	57.9	58.3	58.3	57.9	58.1	58.2
<b>South Asia</b>														
Bangladesh	...	...	54.9	...	...	57.3	...	...	58.5	...	...	...	59.3	...
Bhutan	64.4	...	...	56.5	...	62.9	54.4	...	61.8	67.3	...	68.5	68.6	67.4
India <sup>a</sup>	...	...	37.6	...	...	...	...	39.2	...	...	...	37.4	...	...
Maldives	49.9	51.3	54.7	56.1	57.5	59.1	60.7	62.4	64.2	64.5	64.9	65.3	65.8	...
Nepal	85.2	85.4	85.9	85.6	85.4	85.1	84.9	84.6	84.4	84.1	83.9	83.9	83.9	...
Sri Lanka	51.9	47.9	50.3	48.8	50.3	48.9	48.6	49.3	51.2	49.8	50.2	49.2	48.6	48.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	...	66.5	65.5	67.9	69.8	69.8	69.9	68.3	68.4	67.8	67.8	68.2	68.0	68.3
Cambodia	...	59.2	65.2	71.7	...	...	74.6	...	...	...	...	...	...	...
Indonesia	54.7	...	67.8	68.6	67.8	67.8	67.6	66.8	66.2	67.0	67.2	67.2	67.7	68.3
Lao PDR	81.5	81.1	80.1	79.9	79.7	79.4	79.2	78.9	78.7	78.5	78.3	78.1	78.0	...
Malaysia	66.5	64.7	65.4	64.9	64.4	65.2	64.4	63.3	63.1	63.2	62.6	62.9	63.4	64.1
Myanmar	...	...	...	63.6	63.8	64.3	64.6	65.0	65.4	65.8	66.2	66.6	66.1	66.0
Philippines	64.4	65.8	64.9	67.1	67.4	66.7	67.5	64.6	64.2	64.0	63.6	64.0	64.1	64.6
Singapore <sup>c</sup>	63.2	61.9	63.2	64.4	63.6	63.2	63.3	63.0	65.0	65.0	65.6	65.4	66.2	66.1
Thailand	81.9	74.5	71.5	71.9	71.9	72.2	72.4	72.5	72.2	72.4	72.6	72.8	72.3	71.9
Viet Nam	...	...	49.6	50.2	50.7	51.1	51.8	52.5	71.0	74.7	75.5	76.5	77.4	77.0
<b>The Pacific</b>														
Cook Islands	...	...	...	69.0	...	...	...	...	70.2	...	...	...	...	...
Fiji	56.5	58.9	59.0	59.1	59.3	59.6	59.7	59.9	59.9	59.9	59.8	59.8	59.7	...
Kiribati	76.0	...	80.9	...	...	...	...	63.6	...	...	...	...	...	...
Marshall Islands	...	...	51.1	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	58.6	...	...	...	...	...	...	...	...	...	57.3	...
Nauru	...	...	...	...	76.7	...	...	...	75.8	...	...	...	...	...
Palau	59.3	69.1	67.5	...	...	...	...	69.1	...	...	...	...	...	...
Papua New Guinea	72.4	70.7	72.2	72.4	72.6	72.7	72.8	72.9	72.9	72.8	72.6	72.6	72.4	...
Samoa	59.1	61.1	61.8	61.8	61.8	61.8	61.8	61.7	61.6	61.5	61.3	61.1	61.0	...
Solomon Islands	65.3	65.3	66.2	66.4	66.5	66.7	66.8	66.9	66.9	66.9	66.9	66.8	66.9	...
Timor-Leste	67.0	71.8	...	56.0	...	...	60.2	...	...	...	...	...	41.7	...
Tonga	55.7	60.5	61.3	61.8	62.4	63.2	63.6	64.0	64.2	64.3	64.3	64.2	64.2	...
Tuvalu	...	...	...	...	58.2	...	...	...	...	...	...	...	...	...
Vanuatu	83.5	80.5	77.0	76.3	75.6	75.0	74.3	73.6	72.8	72.1	71.4	70.6	70.6	...
<b>Developed Member Economies</b>														
Australia	63.8	63.7	63.3	63.3	63.4	63.6	63.5	64.4	64.8	65.2	65.5	65.5	65.5	65.6
Japan	63.3	63.4	62.4	62.0	61.2	60.8	60.4	60.4	60.4	60.4	60.2	59.9	59.6	59.3
New Zealand	63.9	64.7	65.3	65.8	66.6	66.4	67.0	67.8	68.3	68.5	68.5	68.3	68.1	68.4

... = Data not available at cutoff date.

a Figures are computed using data on total labor force and total population.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Refers to Singapore residents only.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2012); and for Nauru and Tuvalu, the National Minimum Development Indicator Database–Secretariat of the Pacific Community website (<http://www.spc.int/nmdi/>).



## Labor Force and Employment

Table 1.9 **Unemployment Rate**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	3.4	...	...	3.4	3.4	3.4	3.4	...	...	...	...	...	...	...
Armenia <sup>a</sup>	...	6.7	11.7	10.4	10.8	10.1	9.6	8.2	7.5	7.0	6.3	7.0	7.0	6.2
Azerbaijan <sup>b</sup>	...	0.8	11.8	10.9	10.0	9.2	8.0	7.3	6.6	6.3	5.9	5.7	5.6	5.4
Georgia	...	...	10.3	11.1	12.6	11.5	12.6	13.8	13.6	13.3	16.5	16.9	16.3	15.1
Kazakhstan	...	11.0	12.8	10.4	9.3	8.8	8.4	8.1	7.8	7.3	6.6	6.6	5.8	5.4
Kyrgyz Republic	...	5.7	7.5	7.8	8.6	9.9	8.5	8.1	8.3	8.1	8.2	8.4	8.7	...
Pakistan	3.1	5.3	7.8	7.8	8.5	8.3	7.7	7.7	6.1	5.2	5.3	5.4	5.6	5.9
Tajikistan <sup>a</sup>	...	2.0	2.7	2.3	2.5	2.4	2.0	1.9	2.2	2.3	2.2	2.0	2.1	2.5
Turkmenistan	2.4	...	2.4	2.6	2.5	2.6	2.6	...	...	...	...	...	...	...
Uzbekistan <sup>a</sup>	...	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.1
<b>East Asia</b>														
China, People's Rep. of <sup>c</sup>	2.5	2.9	3.1	3.6	4.0	4.3	4.2	4.2	4.1	4.0	4.2	4.3	4.1	4.1
Hong Kong, China	1.3	3.2	4.9	5.1	7.3	7.9	6.8	5.6	4.8	4.0	3.5	5.3	4.3	3.4
Korea, Rep. of	2.4	2.1	4.1	4.0	3.3	3.6	3.7	3.7	3.5	3.2	3.2	3.6	3.7	3.4
Mongolia	5.5	5.5	4.6	4.6	3.4	3.5	3.6	3.3	3.2	2.8	2.8	3.6	3.6	5.2
Taipei, China	1.7	1.8	3.0	4.6	5.2	5.0	4.4	4.1	3.9	3.9	4.1	5.9	5.2	4.4
<b>South Asia</b>														
Bangladesh	...	...	4.3	...	...	4.3	...	...	4.2	...	...	...	4.5	...
Bhutan	...	...	...	1.9	...	1.8	2.5	3.1	3.1	3.7	...	4.0	3.3	3.1
India	...	...	2.7	...	...	...	...	3.1	...	...	...	2.5	...	...
Maldives	0.9	0.8	2.0	...	...	...	...	...	14.4	...	...	...	11.7	...
Nepal <sup>d</sup>	...	4.5	1.8	8.8	...	...	...	...	...	...	2.7	...	...	...
Sri Lanka	15.9	12.3	7.6	7.9	8.8	8.4	8.3	7.4	6.5	6.0	5.2	5.7	4.9	4.0
<b>Southeast Asia</b>														
Brunei Darussalam <sup>e</sup>	...	4.9	4.7	7.2	3.5	4.5	3.5	4.3	4.0	3.4	3.7	3.5	2.7	2.6
Cambodia	...	2.5	2.5	1.8	...	...	...	...	...	...	1.7	...	...	...
Indonesia	2.5	7.2	6.1	8.1	9.1	9.6	9.9	11.2	10.3	9.1	8.4	7.9	7.1	6.6
Lao PDR	...	3.6	...	5.0	5.0	5.1	...	1.4	...	...	...	...	...	...
Malaysia	5.1	3.1	3.0	3.5	3.5	3.6	3.5	3.5	3.3	3.2	3.3	3.7	3.3	3.1
Myanmar	4.2	4.2	...	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Philippines	8.4	9.5	11.2	11.1	11.4	11.4	11.8	7.9	8.0	7.3	7.4	7.5	7.3	7.0
Singapore	1.7	2.7	4.4	2.7	4.2	4.5	4.4	4.2	3.4	2.9	2.8	4.1	2.8	2.7
Thailand	2.2	1.7	3.6	3.3	2.4	2.2	2.1	1.8	1.5	1.4	1.4	1.5	1.0	0.7
Viet Nam	...	...	2.3	2.5	2.2	2.2	2.1	2.5	4.9	4.1	3.6	3.2	2.7	2.0
<b>The Pacific</b>														
Cook Islands	...	...	...	13.1	...	...	...	...	8.9	...	...	...	...	...
Fiji	6.4	5.4	8.4	9.9	9.3	6.8	7.2	7.7	8.3	8.6	8.6	...	...	...
Kiribati	2.8	0.2	1.6	...	...	...	...	6.1	...	...	...	...	...	...
Marshall Islands	...	...	30.9	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	13.5	...	22.0	...	...	...	...	...	...	...	...	...	16.2	...
Nauru	...	...	...	...	22.7	...	...	...	36.3	...	...	...	...	...
Palau	7.8	7.0	2.3	...	...	...	...	4.2	...	...	...	...	...	...
Papua New Guinea	7.7	...	6.5	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	4.9	...	...	...	...	1.3	...	...	...	...	...
Solomon Islands <sup>f</sup>	...	...	11.1	...	...	...	...	...	...	...	...	2.0	...	...
Timor-Leste	...	...	...	...	...	...	7.2	...	...	...	...	...	3.6	...
Tonga	4.1	...	...	...	...	5.2	...	...	1.1	...	...	...	...	...
Tuvalu	...	...	...	...	6.5	...	...	6.5	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	4.6	...	...
<b>Developed Member Economies</b>														
Australia	6.9	8.5	6.3	6.8	6.4	5.9	5.4	5.0	4.8	4.4	4.2	5.6	5.2	5.1
Japan	2.1	3.2	4.7	5.0	5.4	5.3	4.7	4.4	4.1	3.9	4.0	5.1	5.1	4.6
New Zealand	8.0	6.5	6.2	5.5	5.3	4.8	4.1	3.8	3.9	3.7	4.2	6.1	6.5	6.5

... = Data not available at cutoff date, - = Magnitude equals zero.

a Based on officially registered unemployed only.

b Based on International Labour Organization's methodology starting 2000.

c Refers to urban areas only.

d Data for 1995 and 2000 refer to 1996 and 1999, respectively. Data for 2001 is based on population 10 years old and over.

e Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

f Data for 2000 refers to 1999 figure.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2012); and for Nauru, Papua New Guinea and Solomon Islands, the National Minimum Development Indicator Database – Secretariat of the Pacific Community website (<http://www.spc.int/nmdi/>).

## Labor Force and Employment

Table 1.10 **Unemployment Rate of 15–24-Year-Olds**  
(%)

Regional Member	Total		Female		Male	
	1995	2010	1995	2010	1995	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	...	...	...
Armenia	48.2 (2001)	45.5 (2008)	56.4 (2001)	54.7 (2008)	41.9 (2001)	37.4 (2008)
Azerbaijan	18.4 (1999)	14.5 (2009)	19.9 (1999)	15.5 (2009)	17.0 (1999)	13.4 (2009)
Georgia	24.6 (1999)	35.5 (2008)	24.8 (1999)	40.7 (2008)	24.4 (1999)	32.4 (2008)
Kazakhstan	17.3 (2002)	6.7 (2009)	19.3 (2002)	8.2 (2008)	15.7 (1999)	6.8 (2008)
Kyrgyz Republic	20.1 (2002)	14.6 (2006)	21.2 (2002)	16.2 (2006)	19.3 (2002)	13.6 (2006)
Pakistan	8.9	7.7 (2008)	18.1	10.5 (2008)	7.6	7.0 (2008)
Tajikistan	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...
<b>East Asia</b>						
China, People's Rep. of	2.9	3.1 (2000)	...	...	...	...
Hong Kong, China	6.9	12.6 (2009)	5.9	10.3 (2009)	7.7	15.1 (2009)
Korea, Rep. of	6.3	9.8	5.3	9.0	7.8	11.2
Mongolia	...	20.0 (2003)	...	20.7 (2003)	...	19.5 (2003)
Taipei, China	5.3	14.5 (2009)	...	...	...	...
<b>South Asia</b>						
Bangladesh	7.0 (1996)	9.3 (2005)	5.7 (1996)	13.6 (2005)	8.0 (1996)	8.0 (2005)
Bhutan	6.3 (2005)	12.9 (2009)	7.2 (2005)	14.7 (2009)	5.5 (2005)	10.7 (2009)
India	8.2 (1994)	10.3	8.0 (1994)	11.3	8.3 (1994)	9.9
Maldives	1.9	22.2 (2006)	2.9	30.5 (2006)	1.4	15.5 (2006)
Nepal	3.0 (1999)	...	2.2 (1999)	...	4.0 (1999)	...
Sri Lanka	26.8 (1999)	21.3 (2009)	35.4 (1999)	27.9 (2009)	22.1 (1999)	17.1 (2009)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...
Cambodia	12.2 (1998)	3.4 (2008)	12.0 (1998)	3.3 (2008)	12.3 (1998)	3.5 (2008)
Indonesia	15.5 (1996)	22.2 (2009)	17.0 (1996)	23.0 (2009)	14.3 (1996)	21.6 (2009)
Lao PDR	5.0	...	3.9	...	6.4	...
Malaysia	8.7 (1998)	10.9 (2008)	8.8 (1998)	11.8 (2008)	8.6 (1998)	10.3 (2008)
Myanmar	...	...	...	...	...	...
Philippines	16.1	17.4 (2009)	19.1	19.3 (2009)	14.4	16.2 (2009)
Singapore	5.0	12.9 (2009)	5.5	16.6 (2009)	4.5	9.8 (2009)
Thailand	2.5 (1996)	4.3 (2009)	2.3 (1996)	5.1 (2009)	2.6 (1996)	3.7 (2009)
Viet Nam	3.1 (1996)	4.6 (2004)	2.9 (1996)	4.9 (2004)	3.4 (1996)	4.4 (2004)
<b>The Pacific</b>						
Cook Islands	14.9 (1991)	19.9 (2006)	18.5 (1991)	20.4 (2006)	12.5 (1991)	19.4 (2006)
Fiji	13.1 (1996)	...	16.8 (1996)	...	11.3 (1996)	...
Kiribati	3.6 (1990)	14.6	2.5 (1990)	16.4	4.7 (1990)	13.1
Marshall Islands	62.6 (1999)	...	67.0 (1999)	...	59.8 (1999)	...
Micronesia, Fed. States of	32.7 (1994)	19.5	44.3 (1994)	21.9	24.7 (1994)	17.8
Nauru	29.3 (1992)	58.2 (2006)	38.2 (1992)	65.9 (2006)	22.9 (1992)	51.7 (2006)
Palau	17.4 (1990)	5.7 (2000)	17.2 (1990)	6.0 (2000)	17.6 (1990)	5.5 (2000)
Papua New Guinea	21.1 (1990)	13.6 (2001)	16.6 (1990)	9.5 (2001)	24.2 (1990)	17.4 (2001)
Samoa	12.2 (2001)	4.0 (2006)	15.5 (2001)	6.1 (2006)	10.6 (2001)	3.0 (2006)
Solomon Islands	46.0 (1999)	...	48.7 (1999)	...	44.4 (1999)	...
Timor-Leste	...	...	...	...	...	...
Tonga	30.3 (1996)	2.3 (2006)	27.0 (1996)	2.6 (2006)	32.0 (1996)	2.2 (2006)
Tuvalu	...	31.2 (2002)	...	43.3 (2002)	...	22.5 (2002)
Vanuatu	3.1 (2000)	8.9 (2009)	2.1 (2000)	9.2 (2009)	4.0 (2000)	8.6 (2009)
<b>Developed Member Economies</b>						
Australia <sup>b</sup>	15.4	11.5	14.8	11.1	15.9	11.9
Japan <sup>c</sup>	6.1	9.2	6.1	8.0	6.1	10.4
New Zealand <sup>d</sup>	12.3	17.1	12.2	17.4	12.3	16.8

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b Excludes Jervis Bay Territory beginning 1993.

c Data are averages of monthly estimates.

d Excludes Chathams, Antarctic Territory, and other minor offshore islands. Data are averages of quarterly estimates.

Sources: Key Indicators of the Labour Market Online (ILO 2012); The Pacific Islands Regional Millennium Development Goals Report (The Secretariat of the Pacific Community 2004); and the National Minimum Development Indicator Database - Secretariat of the Pacific Community website (<http://www.spc.int/nmdi/>).

## Labor Force and Employment

Table 1.11 **Employment in Agriculture**  
(% of total employment)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	69.6	...	...	69.6	69.6	69.6	69.6	...	...	...	...	...	...	...
Armenia	...	37.4	44.4	45.1	45.3	46.0	46.9	46.2	46.2	46.0	44.2	45.6	45.4	...
Azerbaijan	30.9	30.8	39.1	39.1	38.9	38.9	38.6	38.7	38.5	38.4	38.2	38.1	38.2	37.9
Georgia	...	...	52.1	52.8	53.8	54.9	54.0	54.3	55.3	53.4	54.7	53.9	52.2	53.0
Kazakhstan	18.8	...	31.5	35.3	35.3	35.0	33.2	32.2	31.1	30.8	29.7	29.0	28.3	26.5
Kyrgyz Republic	32.7	47.0	53.1	52.9	52.7	43.2	38.9	38.5	36.3	34.5	34.0	32.4	31.1	...
Pakistan	51.1	46.7	48.4	48.4	43.2	42.1	43.0	43.0	43.5	43.6	44.6	45.0	45.1	45.1
Tajikistan	43.0	59.1	64.9	66.6	67.6	67.6	66.6	67.5	67.0	66.5	66.7	66.2	65.9	...
Turkmenistan	41.8	44.8	47.6	48.4	48.7	48.2	48.2	...	...	...	...	...	...	...
Uzbekistan	39.3	41.2	34.4	33.5	32.6	31.9	31.0	29.1	28.0	27.9	27.5	25.5	26.8	27.2
<b>East Asia</b>														
China, People's Rep. of	60.1	52.2	50.0	50.0	50.0	49.1	46.9	44.8	42.6	40.8	39.6	38.1	36.7	...
Hong Kong, China	0.7	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	...	...
Korea, Rep. of	17.9	11.8	10.6	10.0	9.3	8.8	8.1	7.9	7.7	7.4	7.2	7.0	6.6	6.4
Mongolia	33.0	46.1	48.6	48.3	44.9	41.8	40.2	39.9	38.8	37.7	36.2	34.7	33.5	33.0
Taipei, China	12.8	10.5	7.8	7.5	7.5	7.3	6.6	5.9	5.5	5.3	5.1	5.3	5.2	5.1
<b>South Asia</b>														
Bangladesh	...	...	50.8	...	...	51.7	...	...	48.1	...	...	...	47.5	...
Bhutan	...	...	...	...	...	...	...	...	62.8	66.6	...	65.4	59.4	60.2
India	...	...	59.9	...	...	...	...	56.1	...	...	...	53.1	...	...
Maldives	25.2	22.2	13.7	...	...	17.3	...	...	11.5	...	...	...	4.3	...
Nepal <sup>a</sup>	81.2	...	76.1	65.7	...	...	...	...	...	...	...	...	...	...
Sri Lanka	46.8	36.7	36.0	32.6	34.5	34.0	33.5	32.8	32.2	31.3	32.7	32.5	32.5	32.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	...	2.5	...	1.4	...	...	...	...	...	...	...	...	...	...
Cambodia	...	81.4	73.7	70.2	70.0	64.8	60.3	60.3	72.3	72.3	72.3	72.3	72.3	71.3
Indonesia	55.9	44.0	45.3	43.8	44.3	46.4	43.3	44.0	42.0	41.2	40.3	39.7	38.3	35.9
Lao PDR	...	85.4	...	82.7	82.4	82.2	...	76.3	...	...	...	...	...	...
Malaysia	26.0	20.0	16.7	15.1	14.9	14.3	14.6	14.6	14.6	14.8	14.0	13.5	14.2	12.0
Myanmar	65.6	64.1	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	44.9	43.4	37.1	37.2	37.0	36.6	36.0	36.0	35.8	35.1	35.3	34.4	33.2	33.0
Singapore <sup>c</sup>	0.3	0.2	0.1	0.3	0.3	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.1
Thailand	63.3	46.7	44.2	42.4	42.5	41.0	39.3	38.6	39.7	39.5	39.7	39.0	38.2	38.7
Viet Nam	72.1	71.3	64.4	63.6	58.7	56.9	58.7	57.1	54.3	52.9	52.3	51.5	49.5	48.4
<b>The Pacific</b>														
Cook Islands	6.1	...	...	7.2	...	...	...	...	4.9	...	...	...	...	...
Fiji	2.5	...	1.6	1.5	1.5	1.4	1.3	1.4	1.3	1.3	1.3	...	...	...
Kiribati	...	...	2.8	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	20.5	...	...	...	...	...	...	...	4.7	7.2	11.0	12.0
Micronesia, Fed. States of	48.0	...	52.2	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	8.0	9.3	7.1	...	...	...	...	7.8	...	...	...	...	...	...
Papua New Guinea	...	...	72.3	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	39.9	...	...	...	...	35.4	...	...	...	...	...
Solomon Islands	28.7	26.0	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	50.8	...
Tonga	38.1	...	...	...	...	28.8	...	...	27.9	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	60.5	...	...
<b>Developed Member Economies</b>														
Australia	5.6	4.9	4.9	4.8	4.4	3.9	3.7	3.6	3.4	3.3	3.3	3.3	3.3	2.9
Japan	7.2	5.7	5.1	4.9	4.7	4.6	4.5	4.4	4.3	4.2	4.2	4.2	4.0	3.7
New Zealand	10.2	9.7	8.8	9.1	8.8	7.9	7.3	6.9	6.9	7.0	6.7	6.6	6.8	6.9

... = Data not available at cutoff date.

a Data for 1990 and 2000 refer to 1991 and 1999, respectively.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Based on total employed residents only.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2012).

## Labor Force and Employment

Table 1.12 **Employment in Industry<sup>a</sup>**  
(% of total employment)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	15.3	...	...	6.2	6.2	6.2	6.2	...	...	...	...	...	...	...
Armenia	...	20.5	14.1	13.4	13.7	13.2	12.9	12.8	12.9	15.1	16.8	15.1	15.1	...
Azerbaijan	12.7	9.7	5.9	5.8	5.9	5.9	6.0	5.9	6.0	6.0	6.1	6.0	5.8	5.7
Georgia	...	...	...	5.8	4.9	5.0	5.3	3.8	4.9	5.2	6.0	6.1	6.5	6.7
Kazakhstan	21.0	...	13.9	12.4	12.3	12.2	12.1	12.3	12.2	11.9	11.7	11.7	11.7	11.6
Kyrgyz Republic	27.9	16.5	10.5	10.3	10.3	15.0	17.6	17.6	19.4	20.3	20.7	21.2	21.1	...
Pakistan	13.0	10.6	11.6	11.5	11.7	13.9	13.8	13.8	14.0	13.7	13.1	13.2	13.4	13.7
Tajikistan	20.1	9.9	6.9	6.7	6.6	6.1	5.6	5.7	5.5	5.3	4.8	4.7	4.2	...
Turkmenistan	10.8	10.1	13.0	13.5	14.2	13.8	13.8	...	...	...	...	...	...	...
Uzbekistan	15.1	12.9	12.7	12.7	12.7	12.8	13.0	13.2	13.4	13.5	13.5	13.4	13.2	13.1
<b>East Asia</b>														
China, People's Rep. of	21.4	23.0	22.5	22.3	21.4	21.6	22.5	23.8	25.2	26.8	27.2	27.8	28.7	...
Hong Kong, China	27.7	18.2	10.3	10.1	9.0	8.5	7.0	6.6	6.5	5.7	4.8	4.3	3.7	3.6
Korea, Rep. of	27.6	23.7	20.4	19.9	19.2	19.1	18.6	18.1	17.6	17.2	16.9	16.4	17.0	16.9
Mongolia	16.8	14.1	11.2	11.2	11.4	11.8	12.0	11.8	11.8	12.0	11.9	11.2	11.5	12.3
Taipei, China	32.3	27.2	28.1	27.8	27.3	27.2	27.5	27.5	27.5	27.7	27.8	27.2	27.3	27.6
<b>South Asia</b>														
Bangladesh	...	...	10.0	...	...	9.9	...	...	11.2	...	...	...	12.6	...
Bhutan	...	...	...	...	...	...	...	...	7.5	14.6	...	6.4	6.6	9.2
India	...	...	16.3	...	...	...	...	18.8	...	...	...	21.5	...	...
Maldives	16.0	18.6	13.4	...	...	...	...	...	17.5	...	...	...	9.4	...
Nepal <sup>b</sup>	2.7	...	9.8	13.4	...	...	...	...	...	...	...	...	...	...
Sri Lanka	19.4	22.2	23.6	23.9	22.4	23.0	24.1	25.4	26.6	26.6	26.3	25.5	24.6	24.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>c</sup>	...	8.9	...	11.2	...	...	...	...	...	...	...	...	...	...
Cambodia	...	2.3	7.0	8.9	8.9	9.3	9.7	9.7	9.2	9.2	9.2	9.2	9.2	9.5
Indonesia	10.8	13.4	13.5	13.3	13.9	13.2	12.9	13.7	13.4	13.4	13.3	13.3	13.9	14.6
Lao PDR	...	...	...	8.7	9.0	9.3	...	...	...	...	...	...	...	...
Malaysia	20.5	23.7	23.8	23.6	22.0	21.9	20.6	20.2	20.7	19.1	18.8	17.2	17.2	17.7
Myanmar	7.7	9.1	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	10.6	10.6	10.4	10.3	9.9	9.9	10.1	10.0	9.8	9.6	9.0	8.7	9.0	8.8
Singapore <sup>d</sup>	25.9	21.5	19.5	19.5	19.0	18.9	18.3	16.7	16.8	16.9	16.9	15.8	15.3	14.8
Thailand	9.9	15.1	15.0	15.5	15.4	15.8	15.9	16.0	15.6	15.7	14.9	14.4	14.2	13.9
Viet Nam	8.8	8.6	10.1	10.9	11.1	12.1	12.5	18.2	18.2	18.9	19.3	20.0	21.0	21.3
<b>The Pacific</b>														
Cook Islands	8.2	...	...	6.0	...	...	...	...	4.9	...	...	...	...	...
Fiji	33.1	...	30.7	31.1	31.3	30.1	30.1	30.3	30.7	30.7	30.3	...	...	...
Kiribati	...	...	7.4	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	7.8	...	...	...	...	...	...	...	0.9	0.8	0.7	1.0
Micronesia, Fed. States of	6.0	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	1.7	1.0	0.7	...	...	...	...	2.6	...	...	...	...	...	...
Papua New Guinea	...	...	3.6	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	19.7	...	...	...	...	21.8	...	...	...	...	...
Solomon Islands	8.8	12.4	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	8.7	...
Tonga	15.3	...	...	...	...	24.9	...	...	27.8	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	7.0	...	...
<b>Developed Member Economies</b>														
Australia	15.7	14.1	12.9	12.4	12.4	12.0	12.0	11.6	11.3	11.2	11.3	10.8	10.6	10.4
Japan	24.2	22.6	20.6	20.1	19.4	18.7	18.2	18.0	18.2	18.2	18.0	17.1	16.8	16.7
New Zealand <sup>e</sup>	15.3	14.8	12.6	12.5	12.5	14.2	14.2	13.4	12.8	12.5	12.4	11.5	11.4	11.3

... = Data not available at cutoff date.

a Refers to manufacturing and mining. Also includes construction sector for the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan. Total industry only refers to the People's Republic of China, Fiji, the Maldives, Nepal, and Timor-Leste. Meanwhile, New Zealand includes only the manufacturing sector and Afghanistan includes transportation and communication.

b Data for 1990 and 2000 refer to 1991 and 1999, respectively.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

d Based on total employed residents only.

e Data for 1990, 1995, and 2000–2002 refer to filled jobs only.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2012).

## Labor Force and Employment

Table 1.13 **Employment in Services<sup>a</sup>**  
(% of total employment)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	15.1	...	...	24.2	24.2	24.2	24.2	...	...	...	...	...	...	...
Armenia	...	42.1	41.6	41.5	41.0	40.9	40.2	41.0	40.9	38.9	39.0	39.3	39.5	...
Azerbaijan	56.4	59.5	54.9	55.1	55.2	55.2	55.4	55.3	55.5	55.6	55.7	55.9	56.0	56.4
Georgia	...	...	...	41.4	41.3	40.1	40.7	41.9	39.8	41.4	39.3	40.0	41.3	40.3
Kazakhstan	60.2	...	54.7	52.3	52.4	52.7	54.6	55.5	56.8	57.3	58.6	59.3	60.0	62.0
Kyrgyz Republic	39.4	36.5	36.5	36.7	37.0	41.7	43.5	43.9	44.3	45.2	45.3	46.3	47.7	...
Pakistan	36.0	42.6	40.0	40.0	45.1	44.0	43.1	43.2	42.6	42.6	42.3	41.8	41.5	41.2
Tajikistan	37.0	31.0	28.1	26.7	25.8	26.3	27.8	26.8	27.5	28.2	28.5	29.2	29.9	...
Turkmenistan	47.4	45.1	39.4	38.1	37.2	38.0	38.0	...	...	...	...	...	...	...
Uzbekistan	45.6	45.8	52.8	53.8	54.7	55.3	56.1	57.7	58.6	58.7	59.1	61.1	59.9	59.7
<b>East Asia</b>														
China, People's Rep. of	18.5	24.8	27.5	27.7	28.6	29.3	30.6	31.4	32.2	32.4	33.2	34.1	34.6	...
Hong Kong, China	71.5	80.9	89.2	89.8	90.7	91.2	92.7	92.9	93.5	94.0	95.2	95.4	96.3	96.1
Korea, Rep. of	54.5	64.5	69.0	70.2	71.5	72.1	73.3	73.9	74.7	75.4	75.9	76.6	76.4	76.7
Mongolia	50.2	39.8	40.1	40.4	43.7	46.4	47.8	48.4	49.5	50.3	51.8	54.1	54.9	54.6
Taipei, China	54.9	62.2	64.1	64.7	65.2	65.5	66.0	66.5	67.0	67.1	67.1	67.5	67.5	67.4
<b>South Asia</b>														
Bangladesh	...	...	39.2	...	...	38.4	...	...	40.7	...	...	...	39.9	...
Bhutan	...	...	...	...	...	...	...	...	29.6	18.8	...	28.2	34.0	30.6
India	...	...	23.7	...	...	...	...	25.1	...	...	...	25.4	...	...
Maldives	58.8	59.2	72.9	...	...	...	...	...	78.7	...	...	...	86.3	...
Nepal <sup>b</sup>	16.0	...	14.1	20.9	...	...	...	...	...	...	...	...	...	...
Sri Lanka	33.8	41.1	40.3	43.5	43.1	43.0	42.4	41.8	41.2	42.1	41.0	42.0	42.9	42.3
<b>Southeast Asia</b>														
Brunei Darussalam <sup>c</sup>	...	88.6	...	87.4	...	...	...	...	...	...	...	...	...	...
Cambodia	...	16.3	19.3	20.8	21.1	25.9	30.0	30.0	18.5	18.6	18.6	18.6	18.6	19.2
Indonesia	33.3	42.6	41.2	42.9	41.8	40.4	43.8	42.3	44.5	45.4	46.4	47.0	47.7	49.5
Lao PDR	...	...	...	8.6	8.6	8.6	...	...	...	...	...	...	...	...
Malaysia	53.5	56.3	59.5	61.2	63.1	63.8	64.8	65.2	64.7	66.1	67.3	69.3	68.6	70.3
Myanmar	26.7	26.8	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	44.4	46.0	52.5	52.5	53.1	53.4	53.9	54.1	54.4	55.3	55.7	56.9	57.8	58.2
Singapore <sup>d</sup>	73.8	78.2	80.3	80.2	80.7	80.8	81.4	83.1	83.0	82.9	82.9	84.0	84.5	85.1
Thailand	26.7	38.2	40.8	42.1	42.1	43.2	44.8	45.4	44.7	44.9	45.4	46.6	47.6	47.4
Viet Nam	19.0	20.1	25.5	25.5	30.1	31.0	28.8	24.7	27.6	28.1	28.4	28.4	29.5	30.3
<b>The Pacific</b>														
Cook Islands	87.8	...	...	86.7	...	...	...	...	90.2	...	...	...	...	...
Fiji	64.4	...	67.7	67.4	67.2	68.5	68.6	68.4	68.0	68.0	68.4	...	...	...
Kiribati	...	...	89.8	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	72.3	...	...	...	...	...	...	...	94.3	92.0	88.2	87.0
Micronesia, Fed. States of	46.0	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	90.4	89.7	92.2	...	...	...	...	89.6	...	...	...	...	...	...
Papua New Guinea	...	...	22.7	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	38.7	...	...	...	...	42.8	...	...	...	...	...
Solomon Islands	62.5	61.6	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	39.7	...
Tonga	46.6	...	...	...	...	46.3	...	...	44.3	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	31.1	...	...
<b>Developed Member Economies</b>														
Australia	78.8	81.0	82.1	82.8	83.2	84.2	84.3	84.9	85.3	85.5	85.4	85.9	86.1	86.7
Japan	68.6	71.7	74.4	75.0	75.9	76.6	77.2	77.5	77.5	77.5	77.8	78.7	79.2	79.6
New Zealand <sup>e</sup>	60.7	62.0	66.3	66.2	66.1	77.9	78.5	79.7	80.3	80.5	80.9	81.9	81.8	81.8

... = Data not available at cutoff date.

a Includes construction and electricity, gas, and water. For the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan, includes only electricity, gas, and water. For New Zealand, also includes mining sector.

b Data for 1990 and 2000 refer to 1991 and 1999, respectively.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

d Based on total employed residents only.

e Data for 1990, 1995, and 2000–2002 refer to filled jobs only.

Sources: Country sources; Key Indicators of the Labour Market Online (ILO 2012).

## Poverty Indicators

Table 1.14 **Poverty and Inequality**

Regional Member	Proportion of Population below \$2 (PPP) a Day (%)		Income Ratio of Highest 20% to Lowest 20% <sup>a</sup>		Gini Coefficient	
	1995	Latest year	1995	Latest year	1995	Latest year
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	4.0 (2008)	...	0.278 (2008)
Armenia	38.9 (1996)	12.4 (2008)	9.2 (1996)	4.5 (2008)	0.444 (1996)	0.309 (2008)
Azerbaijan	37.6 (1996)	2.8 (2008)	6.1	5.3 (2008)	0.350	0.337 (2008)
Georgia	14.0 (1996)	32.2 (2008)	7.1 (1996)	8.9 (2008)	0.371 (1996)	0.413 (2008)
Kazakhstan	18.7 (1996)	1.1 (2009)	6.2 (1996)	4.2 (2009)	0.353 (1996)	0.290 (2009)
Kyrgyz Republic	30.1 (1993)	21.7 (2009)	3.9 (1997)	6.4 (2009)	0.537 (1993)	0.362 (2009)
Pakistan	83.3 (1997)	60.2 (2008)	3.9 (1997)	4.2 (2008)	0.287 (1997)	0.300 (2008)
Tajikistan	83.7 (1999)	27.7 (2009)	4.5 (1999)	4.7 (2009)	0.290 (1999)	0.308 (2009)
Turkmenistan	85.7 (1993)	49.7 (1998)	6.2 (1993)	7.7 (1998)	0.354 (1993)	0.408 (1998)
Uzbekistan	...	...	12.7 (1998)	6.2 (2003)	0.453 (1998)	0.367 (2003)
<b>East Asia</b>						
China, People's Rep. of <sup>b</sup>	74.1	29.8 (2008)	5.0	9.6 (2005)	0.311	0.425 (2005)
Hong Kong, China	...	...	...	9.6 (1996)	...	0.434 (1996)
Korea, Rep. of	...	2.0 (1998)	5.4 (2006)	5.7 (2008)	0.306 (2006)	0.314 (2009)
Mongolia	43.5	49.1 (2005)	5.5	6.2 (2008)	0.332	0.365 (2008)
Taipei,China	...	...	5.3	6.2 (2010)	0.317	0.342 (2010)
<b>South Asia</b>						
Bangladesh	85.5 (1996)	76.5 (2010)	4.9 (1996)	4.7 (2010)	0.335 (1996)	0.321 (2010)
Bhutan	...	29.76 (2007)	...	6.8 (2007)	...	0.381 (2007)
India <sup>b</sup>	81.7 (1994)	68.7 (2010)	4.7 (1994)	4.9 (2005)	0.315 (1994)	0.334 (2005)
Maldives	37.0 (1998)	12.2 (2004)	42.7 1998	6.8 (2004)	0.633 (1998)	0.374 (2004)
Nepal	89.0 (1996)	57.3 (2010)	5.5 (1996)	5.0 (2010)	0.352 (1996)	0.328 (2010)
Sri Lanka	47.0 (1996)	29.1 (2007)	5.5 (1996)	6.9 (2007)	0.354 (1996)	0.403 (2007)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>c</sup>	...	...	...	...	...	...
Cambodia	75.2 (1994)	53.2 (2007)	5.8 (1994)	6.1 (2008)	0.383 (1994)	0.379 (2008)
Indonesia <sup>b</sup>	77.0 (1996)	46.1 (2010)	5.0 (1996)	5.1 (2005)	0.326 (1996)	0.428 (2005)
Lao PDR	79.9 (1996)	66.0 (2008)	5.4 (1997)	5.9 (2008)	0.349 (1997)	0.367 (2008)
Malaysia	11.0	2.3 (2009)	12.0	11.3 (2009)	0.485	0.462 (2009)
Myanmar	...	...	...	...	...	...
Philippines	52.6 (1994)	41.6 (2009)	8.3 (1994)	8.3 (2009)	0.429 (1994)	0.430 (2009)
Singapore	...	...	...	9.7 (1998)	...	0.425 (1998)
Thailand	14.6 (1996)	4.6 (2009)	8.1 (1996)	7.1 (2009)	0.429 (1996)	0.400 (2009)
Viet Nam	85.7 (1993)	43.3 (2008)	5.6 (1993)	5.9 (2008)	0.357 (1993)	0.356 (2008)
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	22.9 (2009)	12.6 (2006)	8.0 (2009)	0.468 (2006)	0.428 (2009)
Kiribati	...	...	...	7.8 (2006)	...	0.400 (2006)
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of	...	14.7 (2000)	...	10.3 (1998)	...	0.450 (1998)
Nauru	...	...	...	16.2 (2006)	...	0.480 (2006)
Palau	...	...	...	7.6 (2006)	...	0.420 (2006)
Papua New Guinea	...	57.4 (1996)	...	12.5 (1996)	...	0.509 (1996)
Samoa	...	...	9.2 (2002)	7.9 (2008)	0.450 2002	0.430 (2008)
Solomon Islands	...	...	...	10.3 (2006)	...	0.460 (2006)
Timor-Leste	77.5 (2001)	72.8 (2007)	7.0 (2001)	4.6 (2007)	0.395 (2001)	0.319 (2007)
Tonga	...	...	...	6.0 (2001)	...	0.340 (2001)
Tuvalu	...	...	8.9 (1994)	6.2 (2004)	0.450 (1994)	0.370 (2004)
Vanuatu	...	...	...	10.4 (2006)	...	0.460 (2006)
<b>Developed Member Economies</b>						
Australia	...	...	5.0 (1994)	5.7 (2007)	0.302	0.328 (2009)
Japan	...	...	5.7 (1994)	6.0 (2006)	0.323 (1994)	0.329 (2006)
New Zealand	...	...	6.8 (1991)	5.3 (2009)	0.310 (1994)	0.323 (2009)

... = Data not available at cutoff date.

- a Derived from income or expenditure share of the highest 20% and lowest 20% groups.  
b Values are weighted average of urban and rural.  
c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: PovcalNet Database Online (World Bank 2012), World Development Indicators Online (World Bank 2012); ADB staff estimates; Directorate for Employment, Labour and Social Affairs (OECD 2012); Country sources; for Taipei,China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2012).

## Poverty Indicators

Table 1.15 Human Development Index<sup>a</sup>

Regional Member	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	Rank in 2011 <sup>b</sup>
<b>Developing Member Economies</b>											
<b>Central and West Asia</b>											
Afghanistan	...	...	...	0.307	0.311	0.323	0.327	0.387	0.394	0.398	172
Armenia	0.737	0.698	0.735	0.669	0.684	0.697	0.702	0.712	0.714	0.716	86
Azerbaijan	...	0.661	0.741	0.655	0.677	0.691	0.703	0.710	0.699	0.700	91
Georgia	...	0.475	0.742	0.679	0.686	0.698	0.697	0.724	0.729	0.733	75
Kazakhstan	0.767	0.721	0.750	0.696	0.702	0.707	0.708	0.733	0.740	0.745	68
Kyrgyz Republic	0.000	0.347	0.712	0.572	0.577	0.584	0.591	0.611	0.611	0.615	126
Pakistan	0.462	0.492	0.499	0.468	0.471	0.481	0.484	0.499	0.503	0.504	145
Tajikistan	0.696	0.629	0.667	0.550	0.557	0.563	0.572	0.600	0.604	0.607	127
Turkmenistan	0.408	0.525	0.741	0.642	0.649	0.652	0.658	0.677	0.681	0.686	102
Uzbekistan	0.728	0.679	0.727	0.588	0.593	0.600	0.605	0.631	0.636	0.641	115
<b>East Asia</b>											
China, People's Rep. of	0.627	0.683	0.726	0.616	0.627	0.639	0.648	0.674	0.682	0.687	101
Hong Kong, China	0.862	0.882	0.888	0.842	0.849	0.855	0.856	0.888	0.894	0.898	13
Korea, Rep. of	0.818	0.855	0.882	0.851	0.858	0.865	0.870	0.889	0.894	0.897	15
Mongolia	0.673	0.633	0.655	0.588	0.598	0.605	0.616	0.642	0.647	0.653	110
Taipei, China	...	0.338	...	...	...	...	...	...	...	...	...
<b>South Asia</b>											
Bangladesh	0.419	0.452	0.478	0.432	0.441	0.449	0.457	0.491	0.496	0.500	146
Bhutan	0.882	0.890	0.494	0.579	...	...	...	...	0.518	0.522	141
India	0.513	0.546	0.577	0.482	0.491	0.500	0.506	0.535	0.542	0.547	134
Maldives	0.400	0.459	0.743	0.560	0.574	0.583	0.590	0.650	0.658	0.662	109
Nepal	0.423	0.466	0.490	0.400	0.406	0.411	0.417	0.449	0.455	0.458	157
Sri Lanka	0.705	0.727	0.741	0.635	0.640	0.646	0.650	0.680	0.686	0.691	97
<b>Southeast Asia</b>											
Brunei Darussalam <sup>c</sup>	...	...	0.866	0.801	0.804	0.804	0.804	0.835	0.837	0.838	33
Cambodia	0.337	0.533	0.543	0.466	0.475	0.484	0.489	0.513	0.518	0.523	139
Indonesia	0.625	0.663	0.684	0.561	0.568	0.580	0.588	0.607	0.613	0.617	124
Lao PDR	0.450	0.487	0.485	0.460	0.467	0.475	0.483	0.514	0.520	0.524	138
Malaysia	0.721	0.760	0.782	0.726	0.731	0.735	0.738	0.752	0.758	0.761	61
Myanmar	...	0.481	0.552	0.406	0.419	0.432	0.438	0.474	0.479	0.483	149
Philippines	0.720	0.736	0.754	0.619	0.623	0.628	0.633	0.636	0.641	0.644	112
Singapore	0.822	0.861	0.885	0.826	0.832	0.836	0.839	0.856	0.864	0.866	26
Thailand	0.714	0.749	0.762	0.631	0.637	0.642	0.646	0.673	0.680	0.682	103
Viet Nam	0.617	0.660	0.688	0.540	0.547	0.554	0.560	0.584	0.590	0.593	128
<b>The Pacific</b>											
Cook Islands	0.700	0.684	...	...	...	...	...	...	...	...	...
Fiji	0.724	0.741	0.758	0.667	0.667	0.664	0.667	0.685	0.687	0.688	100
Kiribati	0.434	0.556	...	...	...	...	...	...	0.621	0.624	122
Marshall Islands	...	0.711	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	0.614	0.614	0.615	0.613	0.635	0.635	0.636	116
Nauru	...	...	...	...	...	...	...	...	...	...	...
Palau	0.832	0.833	...	...	...	...	...	0.777	0.779	0.782	49
Papua New Guinea	0.481	0.515	0.535	0.408	0.408	0.415	0.421	0.457	0.462	0.466	153
Samoa	0.732	0.742	0.715	0.785	...	...	...	0.685	0.686	0.688	99
Solomon Islands	...	0.560	0.622	0.483	0.493	0.494	0.493	0.504	0.507	0.510	142
Timor-Leste	...	...	...	0.428	0.445	0.471	0.492	0.487	0.491	0.495	147
Tonga	...	0.662	...	0.663	0.670	0.671	0.673	0.701	0.703	0.704	90
Tuvalu	0.562	0.547	...	...	...	...	...	...	...	...	...
Vanuatu	0.523	0.557	0.542	0.674	...	...	...	...	0.615	0.617	125
<b>Developed Member Economies</b>											
Australia	0.893	0.933	0.960	0.925	0.928	0.931	0.933	0.926	0.927	0.929	2
Japan	0.911	0.925	0.936	0.873	0.877	0.880	0.881	0.895	0.899	0.901	12
New Zealand	0.875	0.905	0.924	0.896	0.898	0.903	0.903	0.906	0.908	0.908	5

... = Data not available at cutoff date.

a Prior to 2010, calculations are based on *Human Development Report 2010*.

b Rank among the 187 countries classified in UNDP's *Human Development Report 2011*.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: *Human Development Report 2010 and 2011* (UNDP).

## Social Indicators

Table 1.16 **Life Expectancy at Birth**  
(years)

Regional Member	Both Sexes			Female			Male		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	42.3	45.3	48.3	42.3	45.4	48.4	42.4	45.2	48.1
Armenia	67.8	71.0	73.8	70.8	74.4	77.1	64.9	67.8	70.6
Azerbaijan	64.7	66.8	70.5	69.1	69.9	73.5	60.6	63.8	67.6
Georgia	70.2	71.6	73.3	74.2	75.3	76.9	66.5	68.0	69.9
Kazakhstan	68.3	65.5	68.3	73.1	71.1	73.3	63.8	60.2	63.5
Kyrgyz Republic	68.3	68.6	69.4	72.6	72.4	73.4	64.2	64.9	65.5
Pakistan	60.8	63.2	65.2	61.5	64.0	66.1	60.1	62.4	64.3
Tajikistan	62.9	63.8	67.3	66.1	67.7	70.6	59.8	60.0	64.1
Turkmenistan	62.7	63.9	64.9	66.4	67.9	69.1	59.1	60.1	60.8
Uzbekistan	66.7	67.0	68.0	70.0	70.2	71.2	63.6	63.8	64.9
<b>East Asia</b>									
China, People's Rep. of	69.5	71.2	73.3	71.1	72.9	75.0	67.9	69.6	71.6
Hong Kong, China	77.4	80.9	82.9	80.3	83.9	85.9	74.6	78.0	80.0
Korea, Rep. of	71.3	75.9	80.8	75.5	79.6	84.3	67.3	72.3	77.4
Mongolia	60.5	63.1	68.2	63.3	66.3	72.3	57.9	60.1	64.3
Taipei, China	74.0	76.7	79.4	76.8	79.9	82.7	71.3	73.8	76.2
<b>South Asia</b>									
Bangladesh	59.5	64.7	68.6	59.2	64.8	69.3	59.8	64.6	68.0
Bhutan	52.6	61.4	66.9	54.2	63.1	68.9	51.1	59.7	65.0
India	58.4	61.6	65.1	58.7	62.6	66.7	58.1	60.6	63.6
Maldives	60.9	70.4	76.6	60.4	71.1	77.7	61.4	69.7	75.4
Nepal	54.0	61.5	68.4	53.7	61.9	69.2	54.2	61.1	67.6
Sri Lanka	69.7	71.0	74.7	73.2	74.9	77.9	66.3	67.3	71.7
<b>Southeast Asia</b>									
Brunei Darussalam <sup>a</sup>	73.7	76.2	77.9	75.8	78.6	80.3	71.6	74.0	75.7
Cambodia	55.4	57.5	62.5	57.1	58.4	63.9	53.8	56.5	61.2
Indonesia	62.1	65.6	68.9	63.8	67.3	70.6	60.5	64.1	67.3
Lao PDR	54.3	61.4	67.1	55.6	62.7	68.5	53.1	60.2	65.7
Malaysia	70.1	72.1	74.0	72.1	74.3	76.3	68.1	70.0	71.9
Myanmar	57.3	61.9	64.7	58.7	63.3	66.4	55.9	60.5	63.0
Philippines	65.2	66.8	68.5	68.0	70.0	71.9	62.5	63.7	65.2
Singapore	75.6	78.1	81.6	78.0	80.1	84.1	73.3	76.1	79.3
Thailand	72.5	72.5	73.9	75.8	76.5	77.4	69.3	68.8	70.6
Viet Nam	65.5	71.9	74.8	67.4	73.8	76.9	63.7	70.2	72.9
<b>The Pacific</b>									
Cook Islands	69.0	71.0	76.0	72.0	75.0	80.0	67.0	69.0	72.0
Fiji	65.6	67.6	69.2	67.6	70.2	72.1	63.6	65.2	66.5
Kiribati	63.0	66.0	68.0	64.0	68.0	70.0	62.0	64.0	65.0
Marshall Islands	62.0	59.0	59.0	65.0	60.0	60.0	59.0	58.0	58.0
Micronesia, Fed. States of	66.2	67.3	68.8	66.8	67.9	69.6	65.7	66.7	67.9
Nauru	60.0	59.0	60.0	64.0	65.0	65.0	56.0	54.0	56.0
Palau	69.0	70.0	72.0	75.0	74.0	77.0	64.0	67.0	68.0
Papua New Guinea	55.7	58.8	62.4	58.5	61.0	64.6	53.0	56.7	60.4
Samoa	65.0	69.5	72.3	68.4	72.8	75.5	61.8	66.3	69.3
Solomon Islands	56.7	62.8	67.5	57.1	64.1	68.9	56.4	61.6	66.1
Timor-Leste	45.8	56.2	62.0	46.6	57.0	63.0	45.0	55.4	61.1
Tonga	69.6	70.8	72.2	71.1	72.8	75.1	68.1	68.8	69.4
Tuvalu	62.0	63.0	64.0	63.0	63.0	63.0	61.0	63.0	64.0
Vanuatu	63.2	67.6	70.8	64.7	69.3	72.9	61.8	65.9	68.9
<b>Developed Member Economies</b>									
Australia	77.0	79.2	81.7	80.2	82.0	84.0	74.0	76.6	79.5
Japan	78.8	81.1	82.9	81.9	84.6	86.4	75.9	77.7	79.6
New Zealand	75.4	78.6	80.7	78.4	81.3	82.7	72.5	76.1	78.8
<b>WORLD</b>	<b>65.0</b>	<b>67.2</b>	<b>69.2</b>	<b>67.1</b>	<b>69.3</b>	<b>71.3</b>	<b>62.9</b>	<b>65.1</b>	<b>67.1</b>

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); Global Health Observatory Data Repository Online (WHO 2012); for Taipei, China: Social Indicators (Directorate-General of Budget, Accounting and Statistics 2012).



## Social Indicators

Table 1.17 Births, Deaths, and Fertility Rates

Regional Member	Crude Birth Rate (per 1,000 people)			Crude Death Rate (per 1,000 people)			Total Fertility Rate (births per woman)		
	1990	2000	2010	1990	2000	2010	1990	2000	2010
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	52.4	50.6	43.6	22.1	19.3	15.9	8.0	7.7	6.3
Armenia	21.2	13.3	15.3	7.7	8.4	8.9	2.5	1.7	1.7
Azerbaijan	25.9	14.8	18.5	6.1	5.9	6.0	2.7	2.0	2.3
Georgia	16.7	12.1	11.9	9.2	10.0	11.3	2.2	1.6	1.6
Kazakhstan	21.7	14.7	22.4	7.7	10.1	8.9	2.7	1.8	2.6
Kyrgyz Republic	29.3	19.8	26.6	7.0	7.0	6.9	3.7	2.4	2.9
Pakistan	40.4	31.4	27.3	10.3	8.4	7.5	6.0	4.5	3.4
Tajikistan	39.1	30.8	27.9	8.2	7.7	6.2	5.2	4.0	3.3
Turkmenistan	34.7	23.4	21.6	8.4	7.7	7.8	4.3	2.8	2.4
Uzbekistan	33.7	21.4	23.3	6.1	5.5	4.7	4.1	2.6	2.5
<b>East Asia</b>									
China, People's Rep. of	21.1	14.0	12.1	6.7	6.5	7.1	2.3	1.7	1.6
Hong Kong, China	12.0	8.1	12.5	5.2	5.1	5.9	1.3	1.0	1.1
Korea, Rep. of	15.4	13.4	9.4	5.8	5.2	5.1	1.6	1.5	1.2
Mongolia	32.4	19.9	23.5	10.2	7.6	6.4	4.1	2.2	2.5
Taipei, China	16.6	13.8	7.2	5.2	5.7	6.3	1.8	1.7	0.9
<b>South Asia</b>									
Bangladesh	35.7	27.2	20.3	10.3	7.4	6.1	4.5	3.1	2.2
Bhutan	38.0	27.0	20.4	13.8	8.8	6.9	5.8	3.7	2.4
India	31.3	25.9	22.2	10.6	9.0	8.0	3.9	3.1	2.6
Maldives	41.1	21.8	16.8	9.3	4.6	3.6	6.1	2.9	1.8
Nepal	38.6	33.1	24.1	12.9	8.7	5.9	5.2	4.1	2.7
Sri Lanka	20.5	18.1	12.5	6.6	7.1	6.6	2.5	2.2	2.3
<b>Southeast Asia</b>									
Brunei Darussalam <sup>a</sup>	29.2	22.7	19.2	3.7	3.0	3.3	3.5	2.4	2.0
Cambodia	43.6	27.1	22.5	12.1	9.6	8.0	5.7	3.8	2.6
Indonesia	25.9	21.4	18.2	8.4	7.4	7.0	3.1	2.5	2.1
Lao PDR	41.6	30.5	22.8	13.2	8.6	6.3	6.2	4.2	2.7
Malaysia	28.2	24.2	20.3	5.1	4.6	4.7	3.5	3.1	2.6
Myanmar	27.1	20.7	17.3	11.1	9.1	8.6	3.4	2.4	2.0
Philippines	32.9	29.7	25.1	6.6	6.0	5.8	4.3	3.8	3.1
Singapore	18.4	11.8	9.3	4.8	3.9	4.4	1.9	1.4	1.2
Thailand	19.1	14.7	12.1	5.0	6.3	7.4	2.1	1.7	1.6
Viet Nam	29.8	17.5	16.7	7.9	5.4	5.2	3.6	2.0	1.8
<b>The Pacific</b>									
Cook Islands	32.0 (1991)	23.0	16.0 (2009)	7.0 (1991)	6.0	7.0 (2009)	4.0 (1991)	3.2	2.5
Fiji	28.9	24.8	21.6	6.3	6.1	6.7	3.4	3.1	2.7
Kiribati	32.2	29.4	26.6 (2005)	10.5	7.5	8.7 (2005)	4.0	3.8	3.4 (2005)
Marshall Islands	34.7	40.7	35.0 (2007)	4.7	4.9 (1999)	...	...	5.5	4.5 (2007)
Micronesia, Fed. States of	33.7	30.2	24.7	6.5	6.3	6.0	5.0	4.3	3.5
Nauru	31.0 (1992)	28.0	28.0	9.0 (1992)	7.0	6.0 (2009)	3.8 (1992)	3.5	3.2 (2009)
Palau	21.6	14.5	12.9 (2006)	7.7	6.5	7.2 (2006)	2.8	1.5	1.8 (2005)
Papua New Guinea	35.1	35.0	30.2	10.5	9.1	7.6	4.8	4.5	4.0
Samoa	31.9	32.0	24.6	7.0	5.9	5.4	4.8	4.6	3.9
Solomon Islands	40.0	35.4	31.9	11.1	7.7	5.8	5.9	4.7	4.2
Timor-Leste	43.1	43.4	38.5	17.6	11.3	8.1	5.3	7.1	5.6
Tonga	30.1	28.2	27.1 (2009)	6.0	6.1	6.1 (2009)	4.6	4.2	3.9 (2009)
Tuvalu	34.0	25.0	23.0 (2009)	11.0	11.0	10.0 (2009)	3.8	3.6	3.2 (2009)
Vanuatu	35.9	33.0	29.5	8.3	6.2	4.8	4.9	4.5	3.9
<b>Developed Member Economies</b>									
Australia	15.4	13.0	13.0	7.0	6.7	6.4	1.9	1.8	1.9
Japan	10.0	9.4	8.5	6.7	7.7	9.5	1.5	1.4	1.4
New Zealand	17.5	14.9	14.8	8.1	6.9	6.6	2.2	2.0	2.2
<b>WORLD</b>	25.8	21.5	19.8	9.2	8.6	8.2	3.3	2.7	2.5

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); International Data Base (US Census Bureau 2012); for Taipei, China: Social Indicators (Directorate-General of Budget, Accounting and Statistics 2012).

Table 1.18 **Primary Education Completion Rate<sup>a</sup>**  
(%)

Regional Member	Both Sexes		Female		Male	
	2000	2010	2000	2010	2000	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	34.1 (2005)	...	18.7 (2005)	...	48.4 (2005)	...
Armenia	100.8 (2002)	101.3 (2007)	101.1 (2002)	99.8 (2007)	100.6 (2002)	99.8 (2007)
Azerbaijan	89.5	89.5	85.5	89.0	93.8	90.0
Georgia	98.0	116.2	97.6	116.3	98.3	116.2
Kazakhstan	92.6	110.4	93.1	110.9	92.2	110.0
Kyrgyz Republic	93.4	96.6	92.8	96.6	94.0	96.5
Pakistan	61.3 (2005)	67.1	50.6 (2005)	59.3	71.6 (2005)	74.5
Tajikistan	93.1	104.0	88.0	102.3	98.1	105.7
Turkmenistan	...	...	...	...	...	...
Uzbekistan	95.1	92.7	95.5	91.9	95.7	93.4
<b>East Asia</b>						
China, People's Rep. of	95.0 (1997)	...	93.2 (1997)	...	96.7 (1997)	...
Hong Kong, China	98.3 (2003)	95.7 (2009)	97.8 (2003)	96.1 (2009)	98.9 (2003)	95.4 (2009)
Korea, Rep. of	104.1	100.8 (2009)	104.6	101.1 (2009)	103.6	100.4 (2009)
Mongolia	85.8	108.6	88.1	108.6	83.5	108.7
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	67.0	...	66.0	68.8 (2009)	61.1	62.1 (2009)
Bhutan	51.5	94.7	47.8	100.8	55.1	88.7
India	71.5	95.7 (2008)	63.3	95.1 (2008)	79.0	96.2 (2008)
Maldives	147.3 (2003)	120.3 (2009)	151.6 (2003)	114.4 (2009)	143.2 (2003)	125.9 (2009)
Nepal	65.8	70.0 (2002)	56.9	63.1 (2002)	74.1	76.5 (2002)
Sri Lanka	107.1 (2001)	100.8	106.4 (2001)	100.7	107.7 (2001)	100.9
<b>Southeast Asia</b>						
Brunei Darussalam <sup>b</sup>	120.0	117.8	116.5	117.6	123.2	118.0
Cambodia	47.2	87.1	41.2	86.9	53.1	87.3
Indonesia	92.7 (2001)	104.5 (2009)	93.1 (2001)	104.9 (2009)	92.3 (2001)	104.1 (2009)
Lao PDR	69.4	79.5 (2008)	63.4	75.5 (2008)	75.1	83.3 (2008)
Malaysia	95.0 (1999)	99.0 (2005)	94.3 (1999)	98.9 (2005)	95.6 (1999)	99.0 (2005)
Myanmar	80.8	103.6	79.0	106.2	82.6	101.1
Philippines	101.4 (2001)	91.6 (2009)	106.5 (2001)	94.2 (2009)	96.5 (2001)	89.0 (2009)
Singapore	...	...	...	...	...	...
Thailand	87.6 (1999)	...	87.0 (1999)	...	88.2 (1999)	...
Viet Nam	98.4	97.7 (2006)	95.9	96.6 (2003)	100.8	102.4 (2003)
<b>The Pacific</b>						
Cook Islands	87.9 (1999)	109.8 (2011)	85.9 (1999)	118.0 (2011)	89.8 (1999)	102.8 (2011)
Fiji	95.3	105.0 (2009)	94.2	105.1 (2009)	96.3	104.9 (2009)
Kiribati	99.2	112.0 (2008)	94.7	113.1 (2008)	103.4	111.0 (2008)
Marshall Islands	92.5 (1999)	107.6 (2009)	84.2 (1999)	108.7 (2009)	100.4 (1999)	106.5 (2009)
Micronesia, Fed. States of	...	...	...	...	...	...
Nauru	87.0 (2001)	97.3 (2007)	90.1 (2001)	99.0 (2007)	84.3 (2001)	95.7 (2007)
Palau	98.8	104.5 (2004)	90.4	...	106.7	...
Papua New Guinea	55.1	...	50.5	...	59.5	...
Samoa	94.4	101.3	95.8	102.6	93.2	100.2
Solomon Islands	69.9 (1994)	...	...	...	...	...
Timor-Leste	...	65.5	...	66.9	...	64.1
Tonga	105.2 (2001)	104.9 (2006)	105.0 (2001)	108.1 (2006)	105.3 (2001)	101.9 (2006)
Tuvalu	109.9	99.2 (2006)	112.1	109.2 (2006)	107.9	89.3 (2006)
Vanuatu	92.1	83.4	94.4	83.1	90.0	83.7
<b>Developed Member Economies</b>						
Australia	...	...	...	...	...	...
Japan	102.0	102.4 (2009)	101.8	102.3 (2009)	102.1	102.5 (2009)
New Zealand	96.7 (1995)	...	96.5 (1995)	...	...	...

... = Data not available at cutoff date.

a Percentage of students completing the last year of primary school. It is calculated as the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: UNESCO Statistics Institute 2012; World Development Indicators Online (World Bank 2012).

## Social Indicators

**Table 1.19 Adult Literacy Rate**  
(15 years and over, %)

Regional Member	Both Sexes		Female		Male	
	2000	2010	2000	2010	2000	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	21.0	...	51.0	...
Armenia	99.4 (2001)	99.6	99.2 (2001)	99.4	99.7 (2001)	99.7
Azerbaijan	98.8 (1999)	99.8	98.2 (1999)	99.7	98.8 (1999)	99.8
Georgia	99.7 (2002)	99.7	99.6 (2002)	99.7	99.8 (2002)	99.8
Kazakhstan	99.5 (1999)	99.7	99.3 (1999)	99.6	99.8 (1999)	99.8
Kyrgyz Republic	98.7 (1999)	99.2	98.1 (1999)	99.0	99.3 (1999)	99.5
Pakistan	42.7 (1998)	54.9 (2009)	29.0 (1998)	40.3 (2009)	55.3 (1998)	68.6 (2009)
Tajikistan	99.5	99.7 (2009)	99.2	99.6 (2009)	99.7	99.8 (2009)
Turkmenistan	98.8 (1995)	99.6	98.3 (1995)	99.5	99.3 (1995)	99.7
Uzbekistan	98.6	98.1	99.2	99.6	99.2	99.6
<b>East Asia</b>						
China, People's Rep. of	90.9	94.3	86.5	91.3	95.1	97.1
Hong Kong, China	...	...	91.0 (2003)	...	97.0 (2003)	...
Korea, Rep. of	...	...	96.6 (2004)	...	99.1 (2004)	...
Mongolia	97.8	97.4	97.5	97.9	98.0	96.9
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	47.5 (2001)	56.8	40.8 (2001)	52.2	53.9 (2001)	61.3
Bhutan	52.8 (2005)	...	38.7 (2005)	...	65.0 (2005)	...
India	61.0 (2001)	62.8 (2006)	47.8 (2001)	50.8 (2006)	73.4 (2001)	75.2 (2006)
Maldives	96.3	98.4 (2006)	96.4	98.4 (2006)	96.2	98.4 (2006)
Nepal	48.6 (2001)	60.3	34.9 (2001)	48.3	62.7 (2001)	73.0
Sri Lanka	90.7 (2001)	91.2	89.1 (2001)	90.0	92.3 (2001)	92.6
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	92.7 (2001)	95.2	90.2 (2001)	93.6	95.2 (2001)	96.8
Cambodia	67.3 (1998)	73.9 (2009)	57.0 (1998)	65.9 (2009)	79.5 (1998)	82.8 (2009)
Indonesia	90.4 (2004)	90.4	86.8 (2004)	86.8	94.0 (2004)	94.0
Lao PDR	69.6	72.7 (2005)	58.5	63.2 (2005)	81.4	82.5 (2005)
Malaysia	88.7	93.1	85.4	90.7	92.0	95.4
Myanmar	89.9	92.3	86.4	89.9	93.9	94.8
Philippines	92.6	95.4 (2008)	92.7	95.8 (2008)	92.5	95.0 (2008)
Singapore	92.5	95.9	88.6	93.8	96.6	98.0
Thailand	92.6	93.5 (2005)	90.5	91.5 (2005)	94.9	95.6 (2005)
Viet Nam	90.2	93.2	86.6	91.1	93.9	95.3
<b>The Pacific</b>						
Cook Islands	...	...	99.0 (2002)	...	100.0 (2002)	...
Fiji	...	...	91.9 (2003)	...	95.5 (2003)	...
Kiribati	...	...	91.0	...	94.4	...
Marshall Islands	...	...	92.4	...	92.4	...
Micronesia, Fed. States of	...	...	94.0	...	96.0	...
Nauru	...	...	99.0 (1990)	...	99.0 (1990)	...
Palau	...	...	97.0	...	90.0	...
Papua New Guinea	57.3	60.6	50.9	57.3	63.4	63.9
Samoa	98.6 (2004)	63.9	98.2 (2004)	98.6	98.8 (2004)	99.0
Solomon Islands	76.6 (1999)	...	69.0 (1999)	...	83.7 (1999)	...
Timor-Leste	37.6 (2001)	58.3	30.0 (2001)	53.0	45.3 (2001)	63.6
Tonga	98.9 (1997)	99.0 (2006)	99.0 (1997)	99.1 (2006)	98.8 (1997)	99.0 (2006)
Tuvalu	...	...	...	...	...	...
Vanuatu	78.1 (2004)	82.6	76.0 (2004)	80.8	80.1 (2004)	84.3
<b>Developed Member Economies</b>						
Australia	...	...	...	...	...	...
Japan	...	...	...	...	...	...
New Zealand	...	...	...	...	...	...

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Institute for Statistics (UNESCO 2012); UN Economic and Social Commission for Asia and the Pacific, Statistical Yearbook for Asia and the Pacific 2011, website <http://www.unescap.org/stat/data/syb2011/> (UNESCAP 2012).

Table 1.20 Education Resources

Regional Member	Primary Pupil-Teacher Ratio			Secondary Pupil-Teacher Ratio		
	1990	2000	2010	1990	2000	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	41.2	64.0	44.4	24.8	28.0 (1995)	15.6 (2011)
Armenia	20.6 (1994)	20.3 (2001)	19.3 (2007)	10.5 (1994)	6.9 (2002)	13.3 (2011)
Azerbaijan	19.3 (1994)	18.7	11.0	10.3 (1995)	7.8	8.1 (2006)
Georgia	17.2 (1991)	16.8	8.2	6.9 (1991)	7.5	7.6 (2009)
Kazakhstan	21.6	18.7	16.2	13.3	11.3	9.3
Kyrgyz Republic	15.9	24.1	24.3	13.8	13.3	15.2
Pakistan	41.1	33.0	40.5	19.5	19.8 (1996)	41.9 (2004)
Tajikistan	21.3 (1991)	21.8	25.2	10.6 (1995)	16.4	17.1
Turkmenistan	...	...	...	...	...	...
Uzbekistan	24.1	21.4	15.6 (2011)	10.9	11.5	13.3 (2011)
<b>East Asia</b>						
China, People's Rep. of	22.3	22.2 (2001)	16.8	14.6	17.1	15.5
Hong Kong, China	27.2	21.3	15.2	20.7 (1991)	20.1 (1996)	17.5 (2006)
Korea, Rep. of	36.3	32.1	20.9	27.7	21.0	17.6
Mongolia	29.8	32.6	30.2	18.8	19.9	14.5
Taipei, China	28.5	19.0	15.3	21.9	17.6	16.4
<b>South Asia</b>						
Bangladesh	63.0	57.1	43.0	27.4	38.4	28.5
Bhutan	30.5 (1993)	41.1	25.4 (2011)	38.6 (1998)	32.5	20.5 (2011)
India	46.0	40.0	40.2 (2004)	28.7	33.6	25.3
Maldives	26.2 (1998)	22.7	11.7 (2011)	17.0 (1998)	15.3	13.7 (2003)
Nepal	39.2	42.6	31.9	31.1	30.2	40.9 (2008)
Sri Lanka	29.1	26.3 (2001)	23.9	19.1	19.6 (2002)	19.5 (2004)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	15.3 (1991)	13.7	11.9 (2009)	11.8 (1991)	10.9	10.5 (2009)
Cambodia	35.0	50.1	48.4	20.1	18.5	28.9 (2007)
Indonesia	23.3	22.4	16.0	12.9	15.8	12.2
Lao PDR	28.2	30.1	28.8	11.8	21.3	22.8 (2008)
Malaysia	20.4	19.6	13.2 (2009)	19.3	18.4	13.7 (2009)
Myanmar	44.9	32.8	28.2	12.5	31.9	34.1
Philippines	32.7	35.2 (2001)	31.4 (2009)	33.3	36.4 (2001)	34.8 (2009)
Singapore	25.8	25.6	17.4 (2009)	17.9 (1991)	19.4 (1999)	14.9 (2009)
Thailand	20.3	20.8	16.0 (2008)	16.2	24.0 (2001)	21.2 2008
Viet Nam	34.2	29.5	19.9	18.0	28.0	18.6
<b>The Pacific</b>						
Cook Islands	19.4 (1998)	17.8	15.9 (2011)	...	13.9	13.8 (2011)
Fiji	33.6	28.1	26.0 (2008)	...	20.2	18.7 (2008)
Kiribati	28.6	31.7	25.0 (2008)	12.2	17.6	17.4 (2008)
Marshall Islands	14.9 (1999)	16.9 (2002)	14.5 (2003)	21.6 (1999)	16.7 (2002)	14.9 (2003)
Micronesia, Fed. States of	...	...	16.6 (2007)	...	...	...
Nauru	...	21.5	22.4 (2008)	...	17.4	20.9 (2007)
Palau	15.0 (1999)	15.7	...	12.9 (1999)	15.1	...
Papua New Guinea	31.7	35.4	35.8 (2006)	21.7	22.2 (1998)	...
Samoa	24.0	24.0	30.2	18.2 (1991)	21.2	21.5
Solomon Islands	19.4	19.2 (1999)	...	17.5 (1991)	10.1	...
Timor-Leste	...	50.8 (2001)	30.2	...	...	23.0
Tonga	24.0	22.1	25.4 (2007)	17.7	14.6	14.4 (2002)
Tuvalu	18.9 (1999)	19.7	19.2 (2004)	...	...	...
Vanuatu	27.2	22.5	21.7	15.8	24.7	13.9 (2002)
<b>Developed Member Economies</b>						
Australia	16.6 (1991)	17.9 (1999)	...	11.6 (1991)	12.6 (1995)	...
Japan	21.2	20.7	17.8	17.1	14.0	11.9
New Zealand	18.0	18.4	14.5	15.4	15.5	14.5

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); Institute for Statistics Data Centre (UNESCO 2012); for Taipei, China: Monthly Bulletin of Statistics Online (Directorate-General of Budget, Accounting and Statistics 2012).

## Social Indicators

**Table 1.21 Health Care Resources**  
(per 1,000 population)

Regional Member	Physicians			Hospital Beds		
	1990	2000	Latest year	1990	2000	Latest year
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	0.11	0.19 (2001)	0.21 (2009)	0.25	0.40 (2001)	0.40 (2010)
Armenia	3.92	2.99	3.76 (2009)	9.09	5.47	3.70 (2009)
Azerbaijan	3.92	3.61	3.78 (2009)	10.10	8.68	7.50 (2009)
Georgia	4.93	4.73	4.76 (2009)	9.80	4.77	3.10 (2009)
Kazakhstan	3.98	3.29	4.10 (2009)	13.67	7.19	7.60 (2009)
Kyrgyz Republic	3.37	2.82	2.30 (2007)	11.98	7.40	5.10 (2007)
Pakistan	0.46	0.66	0.81 (2009)	0.64	0.70 (2003)	0.60
Tajikistan	2.55	2.13	2.10 (2009)	10.66	6.54	5.20 (2009)
Turkmenistan	3.61	4.18 (2002)	2.39 (2009)	11.49	7.11 (1997)	4.00 (2009)
Uzbekistan	3.39	2.95	2.56 (2009)	12.48	5.33	4.60 (2009)
<b>East Asia</b>						
China, People's Rep. of	1.55	1.64	1.42 (2009)	2.58	2.52	4.20 (2009)
Hong Kong, China	1.20 (1993)	1.32 (1995)	...	...	...	...
Korea, Rep. of	0.80	1.30	2.02 (2010)	3.10	6.10	10.30 (2009)
Mongolia	2.54	2.54 (1999)	2.76 (2008)	11.49 (1991)	7.50 (2002)	5.80 (2010)
Taipei, China	1.09	1.50	1.91 (2010)	4.38	5.68	6.86 (2010)
<b>South Asia</b>						
Bangladesh	0.18	0.23 (2001)	0.30 (2007)	0.30	0.30 (2001)	0.30 (2005)
Bhutan	0.33	0.05 (1999)	0.02 (2007)	0.85	1.60 (2001)	1.70 (2006)
India	0.48 (1992)	0.51 (1998)	0.65 (2009)	0.79 (1991)	0.69 (2002)	0.90 (2005)
Maldives	0.07	0.78	1.60 (2007)	0.76	1.70	4.30 (2009)
Nepal	0.05	0.05 (2001)	0.21 (2004)	0.24	0.20 (2001)	5.00 (2006)
Sri Lanka	0.15 (1993)	0.43	0.49 (2006)	2.74	2.90	3.10 (2004)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	0.75 (1991)	1.01	1.42 (2008)	...	2.60	2.60 (2009)
Cambodia	0.11 (1992)	0.16	0.23 (2010)	2.07	0.60 (2001)	0.84 (2010)
Indonesia	0.14	0.16	0.29 (2007)	0.67	0.60 (1998)	0.60 (2010)
Lao PDR	0.23	0.59 (1996)	0.27 (2005)	2.57	0.90 (2002)	0.70 (2010)
Malaysia	0.39	0.70	0.94 (2008)	2.13	1.80 (2001)	1.80 (2010)
Myanmar	0.08	0.30	0.46 (2008)	0.64	0.70	0.60 (2006)
Philippines	0.12	0.59	1.15 (2004)	1.39	1.00 (2001)	0.50 (2009)
Singapore	1.27	1.40 (2001)	1.83 (2009)	3.61	2.90 (2001)	3.10 (2008)
Thailand	0.23	0.29	0.32 (2010)	1.63	2.20	2.10
Viet Nam	0.40	0.53 (2001)	1.22 (2008)	3.83	2.40 (2001)	3.10 (2009)
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	0.47 (1992)	0.34 (1999)	0.43 (2009)	...	2.60 (1999)	2.10 (2009)
Kiribati	0.19	0.30 (1998)	0.38 (2010)	4.27	1.80 (1998)	1.40 (2010)
Marshall Islands	0.42 (1996)	0.47	0.44 (2010)	2.27	2.10 (1999)	2.70 (2010)
Micronesia, Fed. States of	0.45 (1993)	0.60	0.18 (2009)	...	2.80	3.20 (2009)
Nauru	1.45 (1995)	0.77 (2004)	0.71 (2008)	...	5.90 (2005)	...
Palau	1.11 (1998)	1.58	1.38 (2010)	...	4.40 (1998)	...
Papua New Guinea	0.07	0.05	0.05 (2008)	4.02	...	...
Samoa	0.36 (1992)	0.70 (1999)	0.48 (2008)	...	3.30	1.00 (2005)
Solomon Islands	0.14 (1992)	0.13 (1999)	0.22 (2009)	0.83	2.20 (2003)	1.40 (2005)
Timor-Leste	...	...	0.10 (2004)	...	...	5.90 (2010)
Tonga	0.51 (1991)	0.50	0.29 (2002)	...	3.20 (2001)	2.44 (2008)
Tuvalu	...	0.55 (2002)	1.09 (2009)	...	5.56 (2001)	...
Vanuatu	0.10 (1991)	0.11 (1997)	0.12 (2008)	...	3.10 (2001)	1.70 (2008)
<b>Developed Member Economies</b>						
Australia	2.20	2.50	2.99 (2009)	9.20 (1991)	7.80	3.80 (2009)
Japan	1.70	1.90	2.14 (2008)	15.60 (1993)	14.70	13.70 (2009)
New Zealand	1.90	2.20	2.74 (2010)	8.50	6.20 (1998)	6.18 (2002)

... = Data not available at cutoff date.

<sup>a</sup> Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); Global Health Observatory Online (WHO 2012); for Taipei, China: Statistical Yearbook Online (Directorate-General of Budget, Accounting and Statistics 2012).

Table 1.22 **Estimated Number of Adults Living with HIV**  
(aged 15 years and over, thousands)

Regional Member	Adults		Women	
	2001	2009	2001	2009
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	...	...	...	...
Armenia	1.4	1.9	0.5 <sup>a</sup>	1.0 <sup>a</sup>
Azerbaijan	1.2	3.5	1.0 <sup>a</sup>	2.1
Georgia	1.2	3.4	0.5 <sup>a</sup>	1.5
Kazakhstan	1.8	13.0	1.1	7.7
Kyrgyz Republic	1.0 <sup>a</sup>	9.7	0.5 <sup>a</sup>	2.8
Pakistan	39.0	95.0	11.0	28.0
Tajikistan	4.0	8.9	1.1	2.7
Turkmenistan	...	...	...	...
Uzbekistan	1.0 <sup>a</sup>	28.0	0.5 <sup>a</sup>	8.0
<b>East Asia</b>				
China, People's Rep. of <sup>b</sup>	470.0	730.0	130.0	230.0
Hong Kong, China	...	...	...	...
Korea, Rep. of	5.2	9.5	1.6	2.9
Mongolia	0.1 <sup>a</sup>	0.5 <sup>a</sup>	0.1 <sup>a</sup>	0.2 <sup>a</sup>
Taipei, China	...	...	...	...
<b>South Asia</b>				
Bangladesh	1.1	6.2	0.5 <sup>a</sup>	1.9
Bhutan	0.1 <sup>a</sup>	1.0 <sup>a</sup>	0.1 <sup>a</sup>	0.5 <sup>a</sup>
India	2500.0	2300.0	880.0	880.0
Maldives	0.1 <sup>a</sup>	0.1 <sup>a</sup>	0.1 <sup>a</sup>	0.1 <sup>a</sup>
Nepal	57.0	60.0	19.0	20.0
Sri Lanka	1.3	2.8	0.5 <sup>a</sup>	1.0 <sup>a</sup>
<b>Southeast Asia</b>				
Brunei Darussalam <sup>c</sup>	...	...	...	...
Cambodia	83.0	56.0	51.0	35.0
Indonesia	11.0	300.0	3.2	88.0
Lao PDR	1.0 <sup>a</sup>	8.3	0.5 <sup>a</sup>	3.5
Malaysia	67.0	100.0	6.1	11.0
Myanmar	250.0	230.0	67.0	81.0
Philippines	1.6	8.6	0.5 <sup>a</sup>	2.6
Singapore	2.7	3.3	1.0 <sup>a</sup>	1.0
Thailand	610.0	520.0	220.0	210.0
Viet Nam	140.0	270.0	39.0	81.0
<b>The Pacific</b>				
Cook Islands	...	...	...	...
Fiji	0.2 <sup>a</sup>	1.0 <sup>a</sup>	0.1 <sup>a</sup>	0.2 <sup>a</sup>
Kiribati	...	...	...	...
Marshall Islands	...	...	...	...
Micronesia, Fed. States of	...	...	...	...
Nauru	...	...	...	...
Palau	...	...	...	...
Papua New Guinea	13.0	31.0	7.6	18.0
Samoa	...	...	...	...
Solomon Islands	...	...	...	...
Timor-Leste	...	...	...	...
Tonga	...	...	...	...
Tuvalu	...	...	...	...
Vanuatu	...	...	...	...
<b>Developed Member Economies</b>				
Australia	13.0	20.0	3.9	6.2
Japan	6.4	8.1	2.2	2.7
New Zealand	1.6	2.4	1.0 <sup>a</sup>	1.0 <sup>a</sup>

... = Data not available at cutoff date.

a Less than the estimated number of adults affected with HIV.

b For 2001, refers to maximum estimates ranging from 240–470 thousand adult individuals.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Report on the Global AIDS Epidemic (UNAIDS/WHO 2010).

## Economy and Output

### Snapshots

- Asia and the Pacific region generates the largest share of global GDP.
- The People's Republic of China (PRC), India, and Japan remain the top contributors to the region's GDP, with more than 70% of its total.
- In per capita GDP, the PRC, India, and Japan moved to lower ranks.
- In 2011, GDP growth slowed in many regional economies but strong growth was reported by a few economies in Asia and the Pacific region.
- During the last decade, the contribution of industry and services to GDP has outstripped that of agriculture.
- Consumption expenditure is by far the largest expenditure component of GDP in 2011 or latest year in most economies, albeit at shares lower than in 2001.

### Key Trends

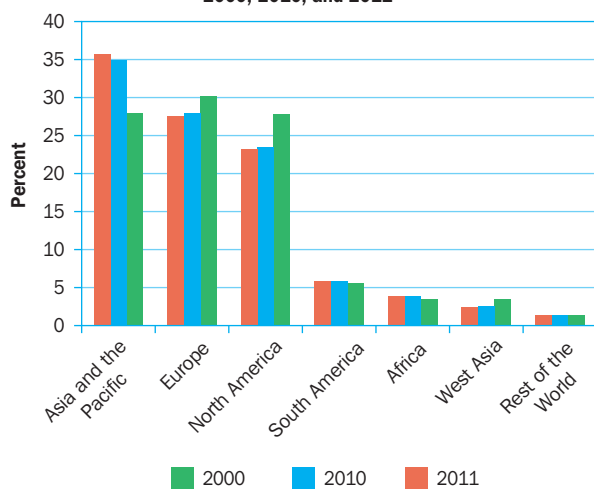
**Asia and the Pacific region generates the largest share of global GDP.** Figure 2.1 compares the PPP-adjusted GDPs of the seven regions of the world economy in terms of shares in global GDP for 2000, 2010, and 2011. Asia and the Pacific includes both developed and developing ADB regional members, and North America includes Mexico and the Caribbean islands.

Figure 2.1 shows that, in 2011, Asia and the Pacific continued to dominate the world economy, a trend that started in 2004. The region's share in total world GDP inched up to 35.7% from 35.0% in 2010. The shares in the world economy of Europe and North America, both

reeling from the debt crisis, have continued to decrease since 2009. Europe's share in total world GDP in 2011 dropped slightly to 27.6% from 28.0% in 2010, while that of North America stayed at about 23%. In 2000, the shares of North America and Asia and the Pacific in global GDP were about the same at 28% but the share of the latter increased substantially, overtaking Europe's share in 2004.

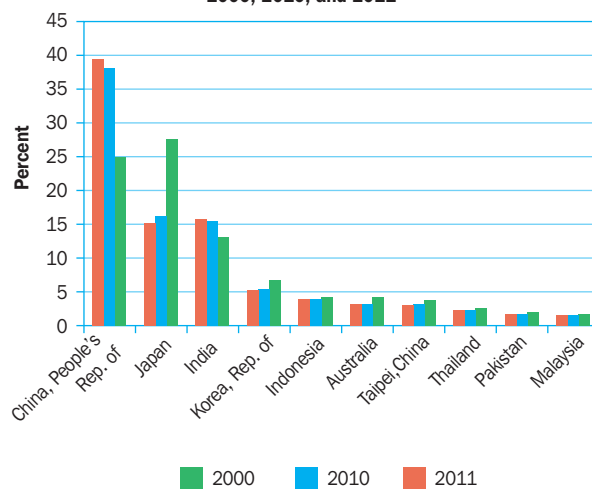
**The PRC, India, and Japan remain the largest economies in the region, with more than 70% of its total GDP** (Figure 2.2). The PRC—the region's largest economy since 2002—maintained the top spot in 2011, with 39.4% of the region's total output. This is up from 38.0% in 2010. In

Figure 2.1 Percentage Distribution of GDP at PPP: Asia and the Pacific Region in the World Economy, 2000, 2010, and 2011



Sources: Derived from Table 2.1 and World Development Indicators Online (World Bank 2012).

Figure 2.2 Percentage Distribution of GDP at PPP: Asia and the Pacific Region, 2000, 2010, and 2011

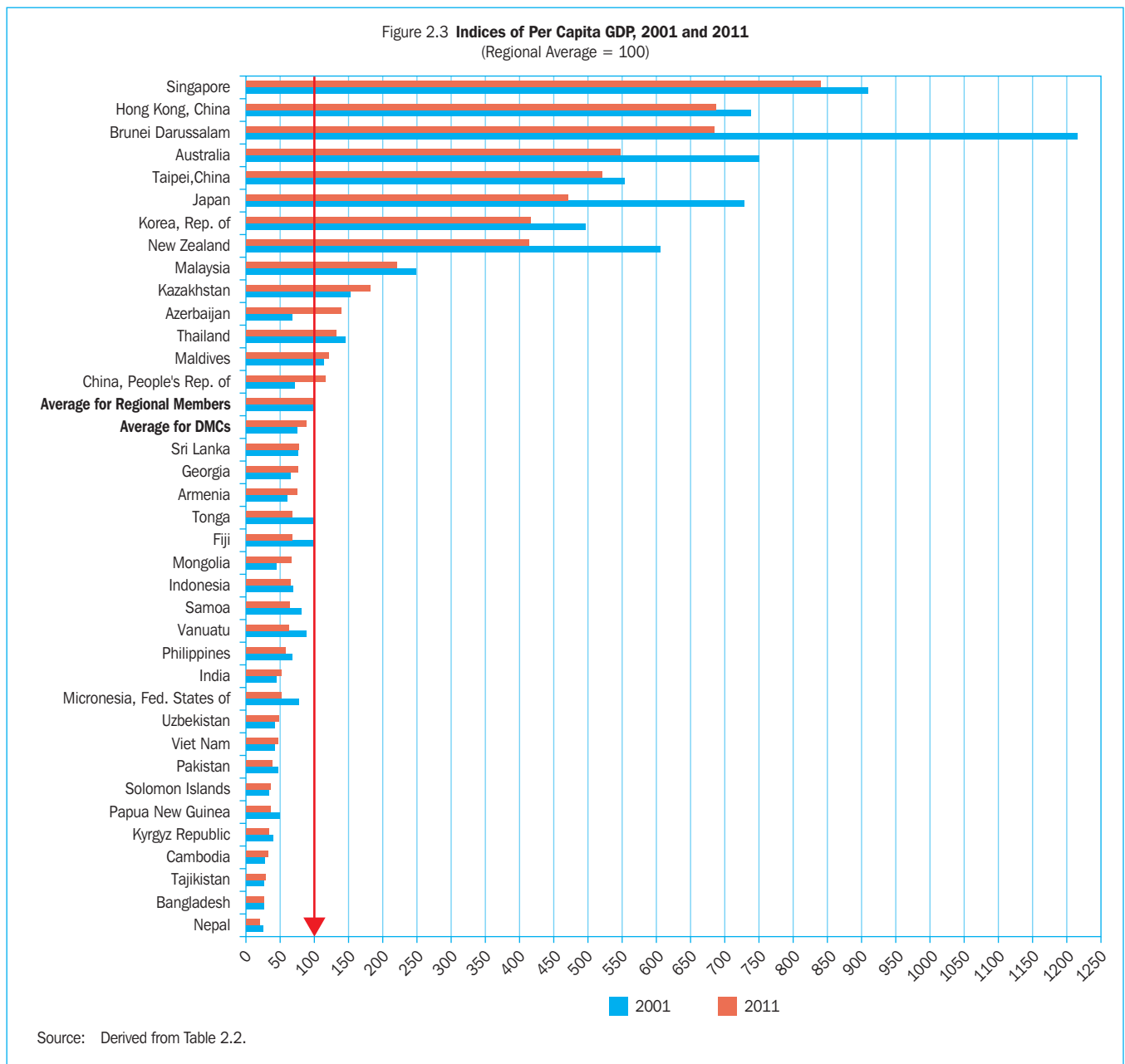


Sources: Derived from Table 2.1 and World Development Indicators Online (World Bank 2012).

2011 India, dislodged Japan as the region’s second largest economy in terms of PPP-adjusted GDP, as India’s share inched up to 15.7% from 15.5% in 2010 while Japan’s dropped to 15.2% from 16.2%. Japan’s decrease could be traced to the effects of the “triple disaster” the country faced in March 2011—the earthquake, the tsunami, and the nuclear power plant meltdown.

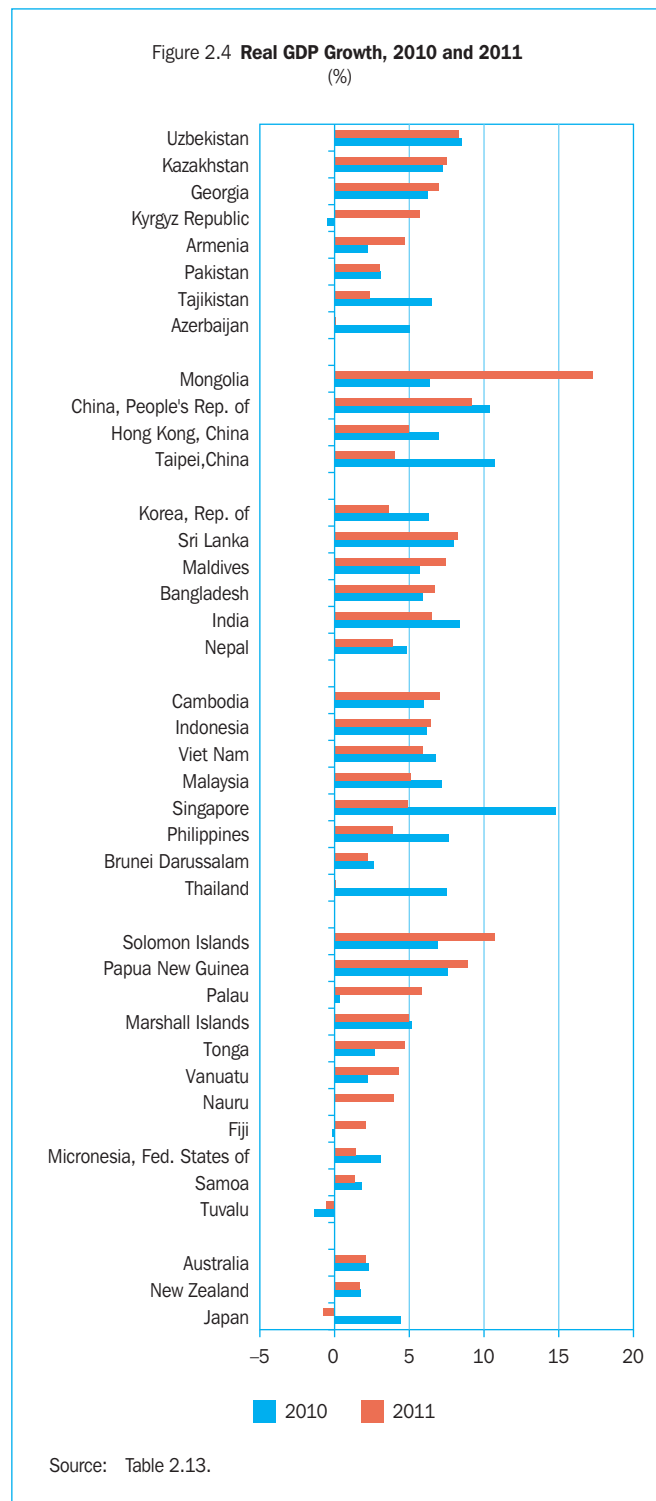
**In terms of per capita GDP, the PRC, India, and Japan moved to lower ranks.** Figure 2.3 shows the indices of per capita GDP in PPP terms, with the average per capita GDP for ADB regional members (developed and developing), as a base. The figure includes the per capita GDP average for ADB developing members, expressed as an index relative to the region’s average. In 2011, the average GDP

per capita was 7,270 international dollars for the region and 6,115 international dollars for developing members. Although the PRC and Japan are the largest economies in the region in 2011, in terms of per capita GDP, they ranked 14th and 6th, respectively, in the region. Three economies—Brunei Darussalam; Hong Kong, China; and Singapore—have significantly high per capita GDPs: more than 6 times the regional average. Of the 36 reporting economies in 2011, 14 had per capita GDP greater than the average for regional members. India, Indonesia, Pakistan, the Philippines, and Viet Nam are among the regional members with big populations and per capita GDP lower than the averages for both ADB developing members and regional members.





**In 2011, GDP growth slowed in many regional economies but some economies in Asia and the Pacific reported robust growth of 5% and above in real GDP.** Overall, the region grew at an average rate of about 5.6% in 2011—significantly higher than the estimated growth of 2.3% for Europe and 1.7% for the United States (US). Figure 2.4 compares growth in real (constant price) GDP for 2010 and 2011 in the region.



In 2011, 22 of the region's economies recorded slower growth while 18 had accelerated growth. In 2010, the GDP of 37 economies improved in real terms while 3—Fiji, the Kyrgyz Republic, and Tuvalu—had negative growth.

Real GDP growth surged in Mongolia by 17.3%, making it the region's fastest growing economy in 2011. Mongolia's rapid growth was fuelled by the development of substantial mineral resources such as gold, copper, and coal. The PRC posted slower but robust growth of 9.2% due to reduced demand for its exports (ADB 2012a).

Economies that registered marked declines in growth include Singapore; Thailand; and Taipei, China. Thailand's economy suffered due to extensive flooding in 2011 while Singapore and Taipei, China both experienced weaker external trade during the period (ADB 2012a).

During the last 5 years, economies with double-digit growth are the PRC and Turkmenistan. Other economies that exhibited strong GDP growth include Afghanistan, Azerbaijan, and Bhutan. Figure 2.5 reflects the 10 economies with the highest average real GDP growth rates for the latest 5 years.

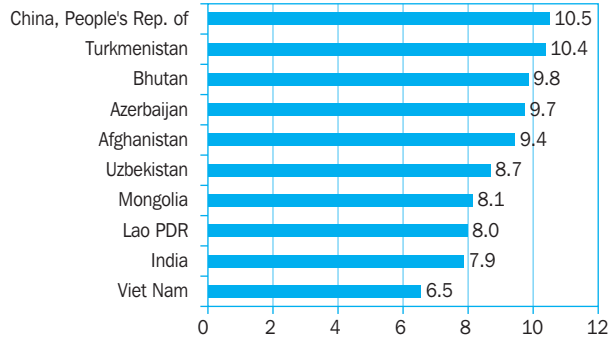
Figure 2.6 shows the 10 economies with the lowest average real GDP growth rates for the latest 5 years. This group consists mostly of higher income economies. Japan contracted slightly while Brunei Darussalam and New Zealand experienced marginal growth during the period.

In the Pacific, Timor-Leste grew fastest in terms of real GDP. The top five performers grew by less than 1% and the Cook Islands, Kiribati, and Palau contracted during the period (Figure 2.7).

**During the last decade, the contribution of industry and services to GDP has outstripped the contribution of agriculture** (Figure 2.8). The share of agriculture in GDP has been shrinking for most economies in the region in nominal prices, while the shares of the industry and services have expanded. Almost all reporting economies experienced a decline in the contribution of agriculture to GDP between 2001 and 2011 or the latest year. The biggest reductions were in Myanmar, the Kyrgyz Republic, and the Lao PDR. Malaysia and Thailand recorded increases in agriculture's share of GDP, which could be due to higher commodity prices, notably in rubber, palm oil, and rice.

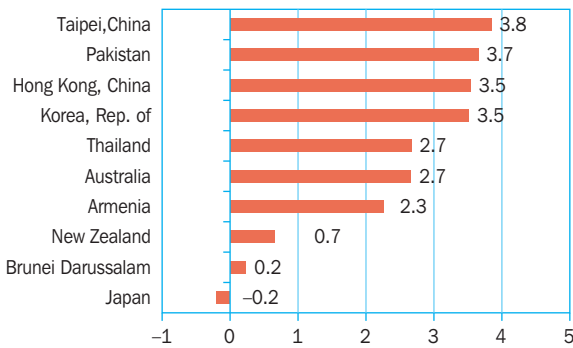
Industry's share in GDP increased during 2001–2011 in 28 of the 45 reporting economies. Economies reporting substantial increases included Azerbaijan, Mongolia, and Brunei Darussalam, while three—Tajikistan; Singapore; and Hong Kong, China—recorded decreases. In the former group, construction activities held up in Azerbaijan; strong

Figure 2.5 Highest Average Growth Rates of Real GDP in the Region for the Latest Five Years (%)



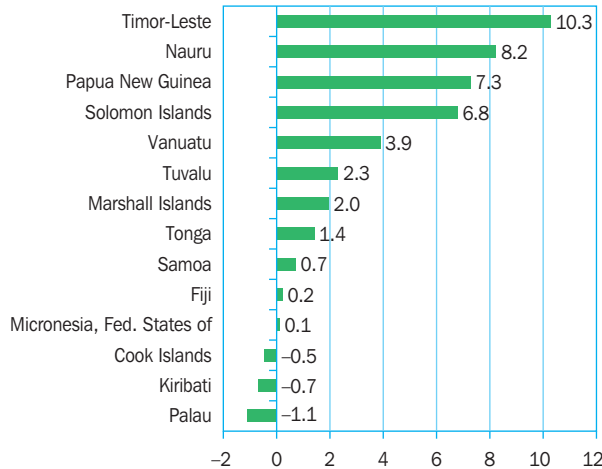
Source: Table 2.13.

Figure 2.6 Lowest Average Growth Rates of Real GDP in the Region for the Latest Five Years (%)



Source: Table 2.13.

Figure 2.7 Economic Performance in the Pacific, Average Growth Rates of Real GDP for the Latest Five Years (%)

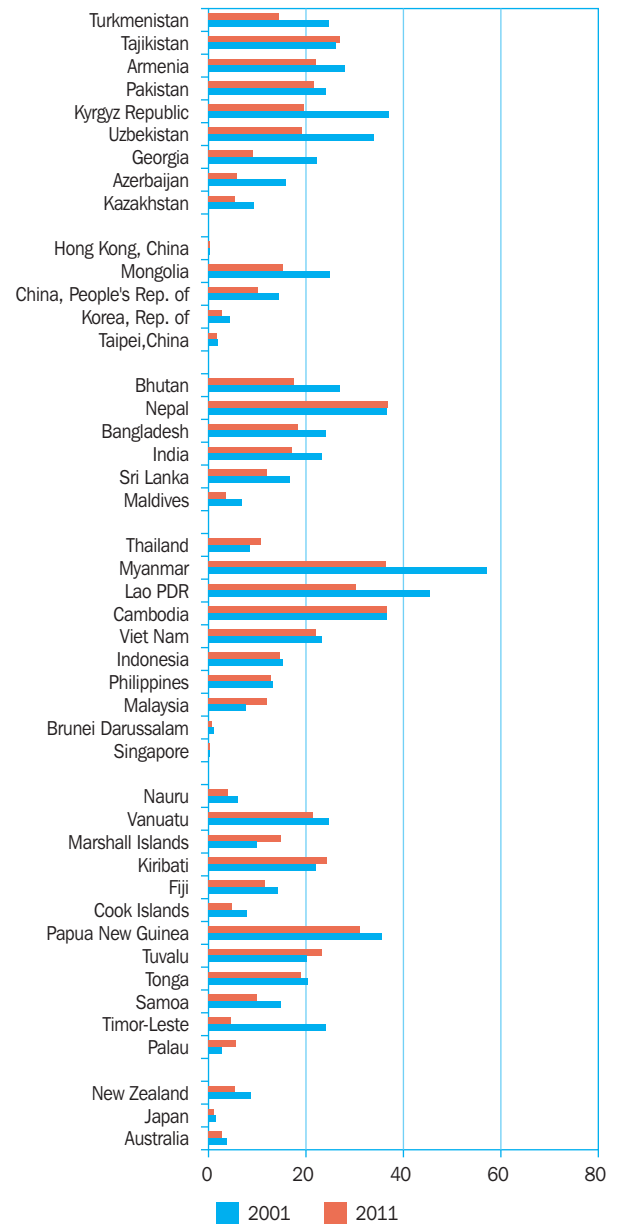


Source: Table 2.13.

growth in all industrial activities (mining, manufacturing, and construction) aided Mongolia; and increased liquefied natural gas production explains industry's performance in Brunei Darussalam. A drop in global demand for semiconductors in 2011 contributed to the drop of industry's share of GDP in Singapore.

The share of services in GDP increased in a majority of the 45 reporting economies during 2001–2011. The economies reporting the largest expansion in services in the region are the Central and West Asia economies of

Figure 2.8a Agriculture Value Added as a Percentage of GDP, 2001 and Latest Year



Source: Table 2.4.

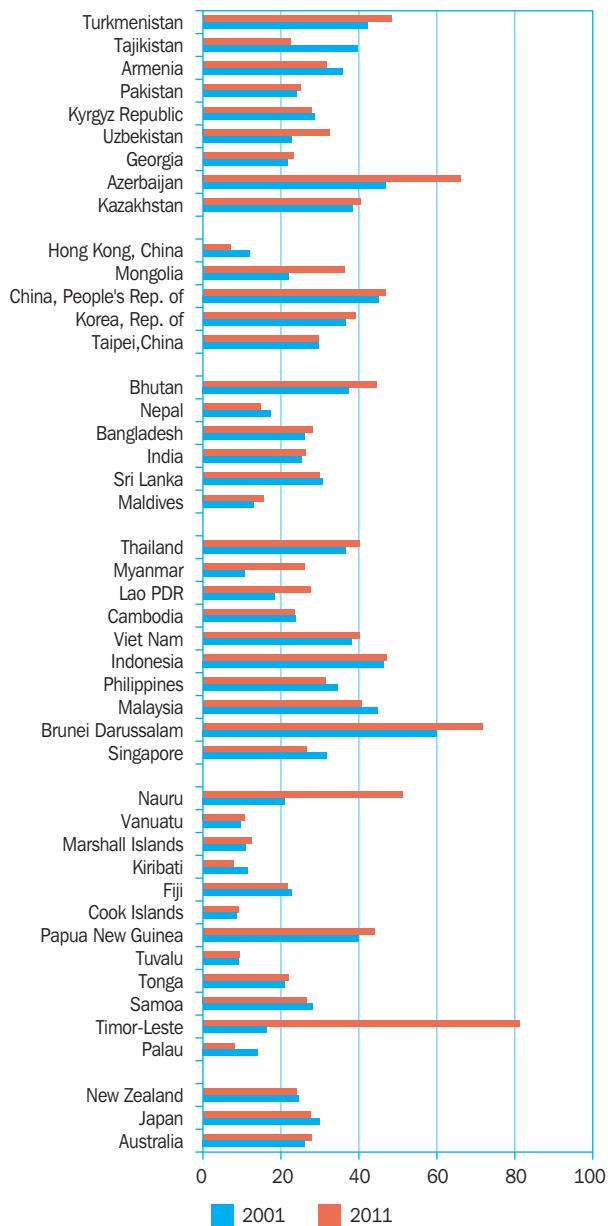
the Kyrgyz Republic, Tajikistan, Georgia, and Armenia. However, three economies—Hong Kong, China; the Maldives; and Singapore—have Asia's highest share of services in GDP, at 70%–90%. The high share can be partly attributed to good performances in financial services as well as tourism and tourism-related services.

Most reporting Pacific island economies registered a decline in the share of agriculture in GDP and an increasing share of services, industry, or both during 2001 to the latest year. Tourism and tourism-related activities

are the major contributors in the services sector across the Pacific. The increased share of industry in GDP was on account of construction for Papua New Guinea (PNG), petroleum for Timor-Leste, and phosphate mining for Nauru.

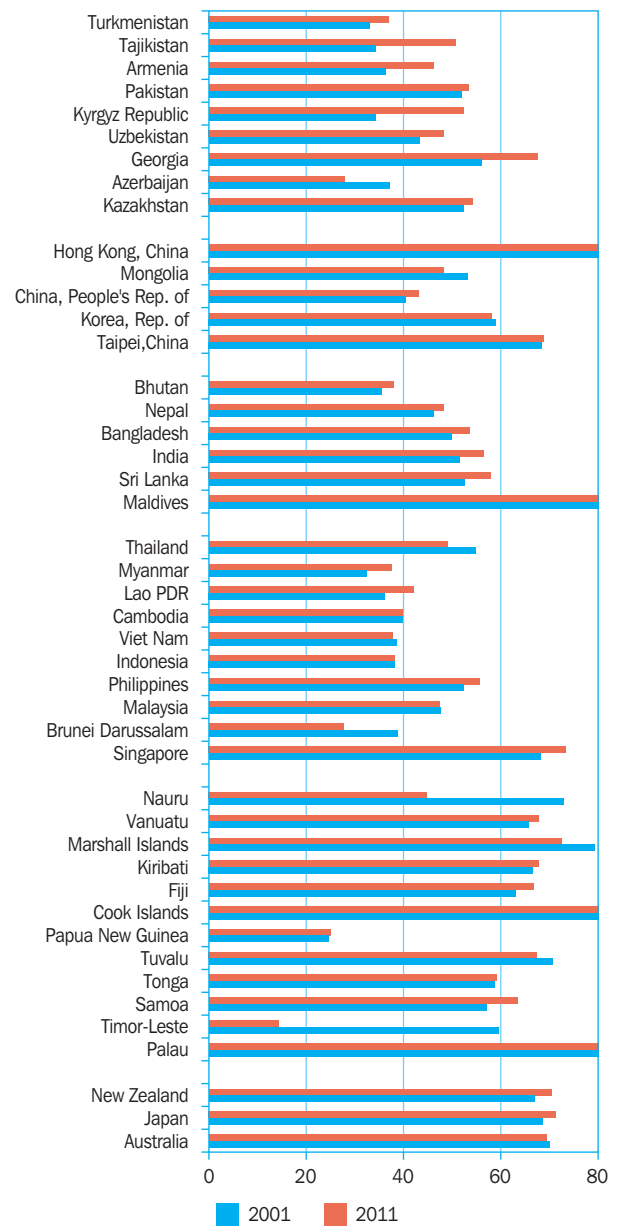
**Consumption expenditure is by far the largest expenditure component of GDP in 2011 in most economies, although it was lower than in 2001.** Figure 2.9a to Figure 2.9c present the consumption expenditure as percentage of GDP in nominal prices of 36 economies in the region for 2001

Figure 2.8b Industry Value Added as a Percentage of GDP, 2001 and Latest Year



Source: Table 2.5.

Figure 2.8c Services Value Added as a Percentage of GDP, 2001 and Latest Year



Source: Table 2.6.

and the latest year where data are available. Twenty-four economies had lower shares of consumption than in 2001. In East Asia, the largest drops in consumption expenditure were in Mongolia (24.0 percentage points) and the PRC (10.6 percentage points). The reduced shares of consumption in these economies could be attributed to large increases in investment spending, to 58.5% in Mongolia and 48.6% in the PRC, in 2011. This investment spending is among the biggest in Asia and the Pacific region in terms of GDP share.

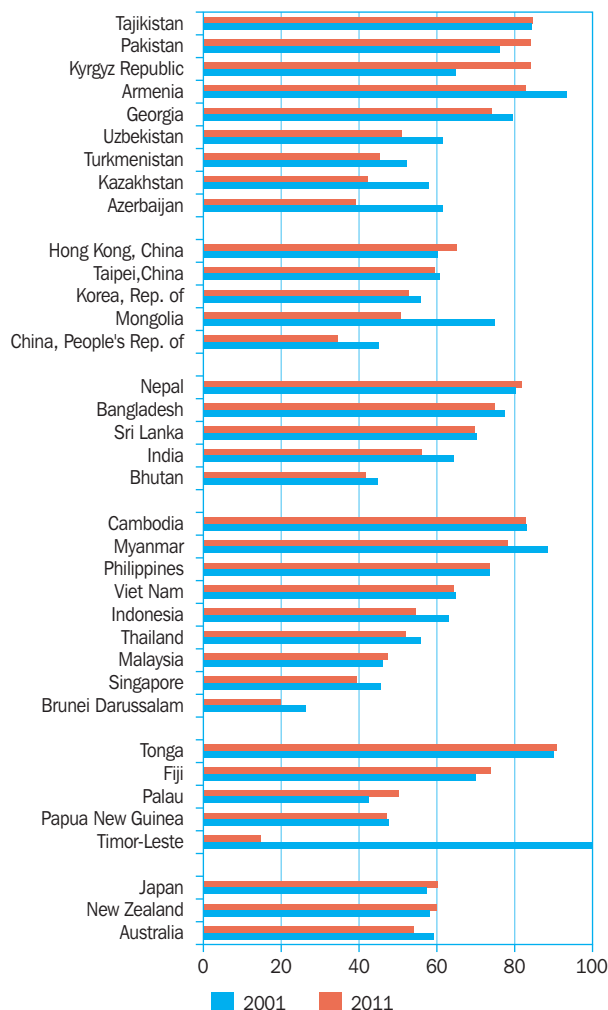
Economies in South Asia, particularly Nepal and India, also showed increased shares of investment spending. For Nepal, caution is needed in interpreting the investment data as it includes statistical discrepancy. In India, domestic demand appears to be rebalancing in favor of investment spending, accompanied by a reduction in final consumption expenditure.

Among the Central and West Asia economies, Azerbaijan, Kazakhstan, and Uzbekistan recorded notable decreases in the share of household spending in recent years, possibly due to the substantial increases in the export shares in these economies.

In the Pacific, Timor-Leste had the biggest drop in the share of consumption expenditure, from almost 100% in 2001 to only 14.7% in 2010. However, the decline could be due to methodological differences in estimating Timor-Leste's GDP. In 2001, Timor-Leste was still part of Indonesia and gained independence only in 2002. A new revised and rebased GDP series for the period 2004–2010 was released in 2012.

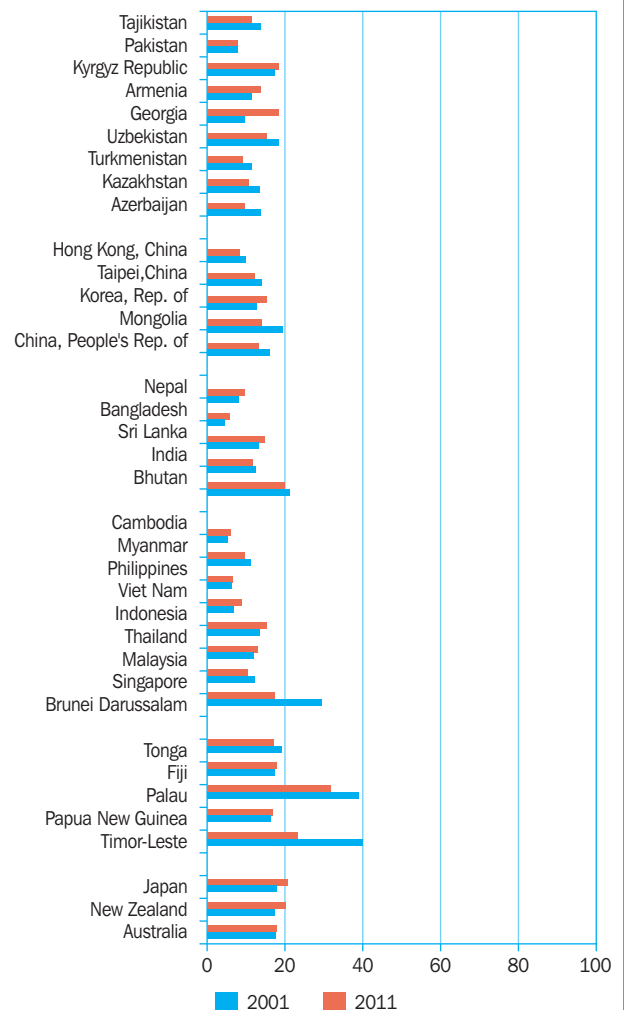
Other Pacific island economies display opposing expenditure patterns—Fiji and Tonga showed increased

Figure 2.9a Private Consumption Expenditure as a Percentage of GDP, 2001 and Latest Year



Source: Table 2.7.

Figure 2.9b Government Expenditure as a Percentage of GDP, 2001 and Latest Year

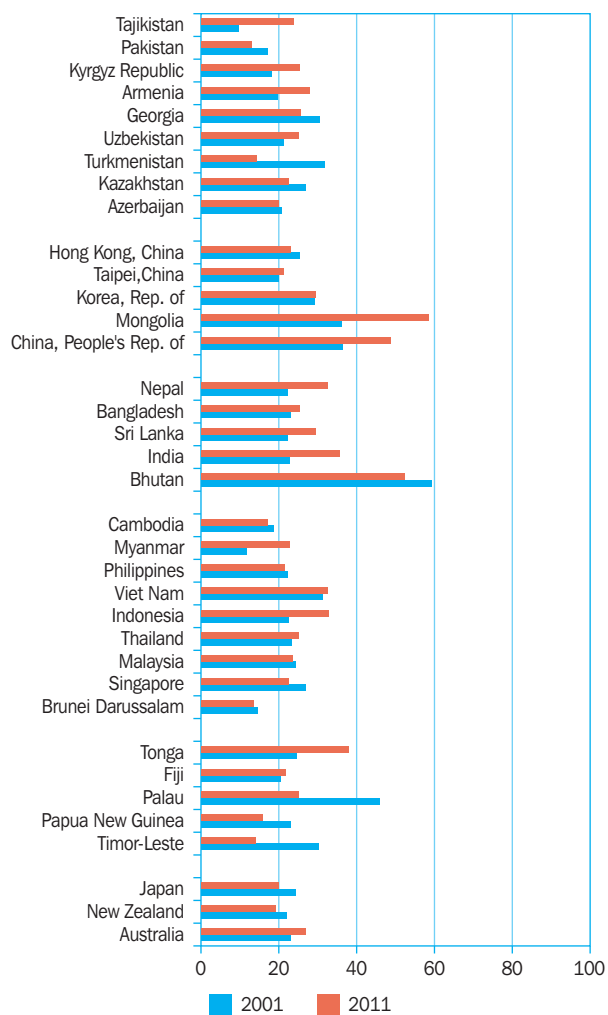


Source: Table 2.8.

shares in investment spending while Palau and PNG both registered decreases. The smallness of these economies (particularly Palau and Tonga, with GDP under half a billion US dollars in 2011) makes meaningful analysis of the trend of expenditure shares difficult.

For some economies (such as Georgia), the decrease in private consumption was compensated for by an increase in government expenditure. In 2011, the share of Georgia's government consumption reached 18.3%, a considerable increase—almost double—from the 9.6% in 2001, and the biggest increase in the region. Government consumption in recent years, compared with 2001, has increased in more than half the region's economies (including the three developed countries).

Figure 2.9c **Gross Domestic Capital Formation as a Percentage of GDP, 2001 and Latest Year**



Source: Table 2.8.

## Data Issues and Comparability

The indicators used in this theme are derived from the national accounts statistics compiled according to the United Nations System of National Accounts (SNA). These indicators may not be fully consistent across economies because of differences in their data compilation framework. While many economies have adopted the 1993 SNA framework, others are still using the 1968 SNA and a few have shifted to the 2008 SNA that uses the chain volume measure as the valuation method.

Economies also have varying reference periods and price valuation methods. Some use the calendar year in compiling their national accounts while others use a fiscal year. Also, some economies, especially those with small statistical offices, are not able to provide timely estimates.

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## National Accounts

Table 2.1 **Gross Domestic Product at PPP**  
(current international dollars, million)

Regional Member	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	14834	17332	18535	21659	24988	31398	24587	30500	33277	...
Armenia	6264	7018	8072	9400	10676	12559	14676	17177	18768	16284	16618	17878
Azerbaijan	17779	19982	22460	25500	28891	37731	52386	67406	76338	84324	89560	92927
Georgia	9808	10512	11268	12777	13906	15747	17780	20554	21494	20903	22466	24684
Kazakhstan	71377	82850	92446	103172	116256	131765	150570	168724	178146	182201	197755	218661
Kyrgyz Republic	6547	7052	7165	7830	8616	8887	9458	10564	11704	12170	12143	13348
Pakistan	236583	246743	258838	277093	305885	340262	372937	405558	421142	440923	463458	487607
Tajikistan	5305	5979	6629	7464	8481	9682	8429	10556	13082	13740	14799	16327
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	35696	38038	40202	42746	47086	50015	59015	65344	77010	81648	87289	97116
<b>East Asia</b>												
China, People's Rep. of	2987949	3309306	3669082	4121012	4664793	5364252	6240535	7333305	8215041	9066226	10124435	11347450
Hong Kong, China	176113	181001	187327	197022	219711	243081	268537	293977	307408	302448	326804	352982
Korea, Rep. of	808404	859581	936042	965795	1038812	1096741	1172852	1268474	1306387	1324498	1422887	1503604
Mongolia	3932	3987	4223	5250	5996	6662	8169	9267	10315	10292	11074	13340
Taipei, China	450876	453494	485110	513740	561012	607027	660824	720924	742061	741886	828059	879859
<b>South Asia</b>												
Bangladesh	111490	120036	127369	136888	149555	163725	180215	197356	214209	228915	245608	272273
Bhutan	1406	1596	1778	1899	2042	2255	2531	3071	3285	3544	4026	...
India	1560832	1676947	1769805	1952100	2229947	2517884	2839892	3208640	3407204	3727114	4130212	4530860
Maldives	1059	1140	1227	1459	1648	1562	1928	2193	2515	2422	2590	2859
Nepal	20988	20942	21307	22615	24339	26022	27765	29545	32042	33850	35889	38302
Sri Lanka	52131	52258	54178	58606	63534	69740	77510	85179	92243	96523	105461	117282
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	14065	14778	15600	16391	16937	17567	18931	19510	19555	19414	20148	21032
Cambodia	11440	12603	13697	15175	17215	20143	23033	26121	28485	28819	30883	33805
Indonesia	496572	526332	558946	598002	645745	705159	767949	840352	910589	962871	1034307	1131166
Lao PDR	6055	6541	7443	8064	8850	9687	11217	12082	12955	13882	15167	...
Malaysia	212058	217989	233470	252187	276865	313497	342026	373803	400721	402737	432327	464830
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	185003	194673	205047	219772	241085	260987	283532	311056	331137	338502	368535	392709
Singapore	136012	137489	145593	155469	174479	193558	217312	243418	270544	274685	293949	316741
Thailand	316563	334358	363906	401476	440770	476166	514999	553419	581655	571403	629567	647132
Viet Nam	109999	120249	130876	143419	158937	178075	198945	222025	241256	256801	277381	301728
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	2798	2919	3061	3157	3418	3556	3739	3814	3939	3930	3968	4156
Kiribati	176	174	188	200	208	208	215	227	235	223	229	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	289	300	307	318	317	334	345	348	347	353	368	385
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	9308	9507	9825	10602	11305	11299	11879	13289	14472	15794	17283	18386
Samoa	478	524	557	596	642	724	729	796	785	782	803	864
Solomon Islands	538	524	505	594	658	728	850	895	1105	1272	1435	1425
Timor-Leste <sup>b</sup>	865	1027	806	824	3033	3866	5993	6087	8648	6185	7759	...
Tonga	337	359	377	394	412	426	433	434	460	467	490	507
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	643	637	620	656	703	764	844	926	1017	1018	1052	1148
<b>Developed Member Economies</b>												
Australia	504751	531760	564874	594342	629467	663300	705744	758674	795060	863509	856617	899055
Japan	3294690	3382457	3471742	3571047	3747616	3889583	4062590	4263714	4289493	4089970	4322590	4382856
New Zealand	81389	85887	90437	94802	100494	104621	113500	121750	123611	125779	129102	132641
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>8053670</b>	<b>8664666</b>	<b>9394584</b>	<b>10290607</b>	<b>11504362</b>	<b>12906435</b>	<b>14575036</b>	<b>16558303</b>	<b>17983331</b>	<b>19300136</b>	<b>21289913</b>	<b>23342341</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>11948566</b>	<b>12679548</b>	<b>13537237</b>	<b>14567188</b>	<b>15998876</b>	<b>17581506</b>	<b>19475801</b>	<b>21721952</b>	<b>23211050</b>	<b>24398809</b>	<b>26618370</b>	<b>28777926</b>

... = Data not available at cutoff date, GDP = gross domestic product, PPP = purchasing power parity.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b GDP estimates prior to 2004 refer to non-oil GDP. Before 2002, estimates include the value added of United Nations activities.

c For reporting economies only.

Sources: ADB staff estimates using World Development Indicators Online (World Bank 2012), country sources, CEIC data, and US Bureau of Economic Analysis.

## National Accounts

**Table 2.2 GDP Per Capita at PPP**  
(current international dollars)

Regional Member	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	664	761	797	914	1033	1282	983	1196	1280	...
Armenia	1945	2184	2514	2927	3322	3903	4556	5324	5803	5020	5104	5470
Azerbaijan	2202	2451	2729	3069	3440	4439	6085	7727	8637	9424	9891	10130
Georgia	2211	2388	2578	2942	3223	3644	4040	4677	4905	4766	5064	5523
Kazakhstan	4796	5576	6222	6920	7750	8704	9836	10897	11366	11464	12259	13204
Kyrgyz Republic	1340	1430	1440	1560	1695	1727	1820	2009	2210	2271	2236	2432
Pakistan	1690	1727	1788	1852	2005	2210	2379	2489	2531	2595	2671	2753
Tajikistan	857	947	1029	1136	1264	1413	1205	1478	1793	1844	1954	2118
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	1441	1519	1591	1677	1832	1928	2251	2465	2872	3010	3181	3499
<b>East Asia</b>												
China, People's Rep. of	2357	2593	2856	3189	3589	4102	4748	5550	6186	6794	7550	8422
Hong Kong, China	26423	26958	27776	29272	32389	35678	39162	42507	44180	43374	46527	49913
Korea, Rep. of	17197	18151	19656	20180	21624	22783	24247	26102	26689	26931	28797	30205
Mongolia	1632	1634	1703	2100	2370	2602	3154	3562	3902	3825	4043	4788
Taipei, China	20240	20240	21541	22727	24726	26659	28887	31401	32212	32089	35751	37884
<b>South Asia</b>												
Bangladesh	870	960	1005	1066	1149	1241	1348	1457	1560	1645	1742	1906
Bhutan	2362	2646	2910	3069	3257	3552	3912	4661	4896	5185	5787	...
India	1536	1620	1684	1828	2055	2287	2541	2829	2962	3196	3494	3783
Maldives	3920	4131	4375	5117	5694	5317	6449	7194	8125	7699	8099	8793
Nepal	929	904	907	949	1008	1063	1118	1173	1255	1307	1367	1439
Sri Lanka	2693	2790	2850	3044	3265	3550	3898	4250	4563	4720	5107	5620
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	43303	44406	45322	46885	47086	47465	49428	50026	49132	47793	48620	49757
Cambodia	918	998	1070	1170	1310	1512	1706	1909	2054	2046	2159	2328
Indonesia	2412	2523	2644	2791	2975	3207	3448	3724	3985	4162	4352	4682
Lao PDR	1190	1260	1406	1493	1606	1723	1952	2059	2159	2268	2424	...
Malaysia	9028	9072	9514	10071	10840	12036	12882	13815	14536	14341	15122	16034
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	2410	2485	2565	2696	2901	3082	3287	3541	3702	3719	3980	4170
Singapore	33767	33226	34864	37783	41875	45374	49373	53048	55905	55074	57902	61103
Thailand	5086	5321	5738	6275	6830	7315	7854	8380	8749	8541	9353	9573
Viet Nam	1426	1539	1655	1793	1963	2174	2401	2636	2834	2985	3191	3435
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	3489	3626	3780	3869	4163	4300	4504	4584	4706	4662	4679	4876
Kiribati	2077	2025	2149	2255	2301	2252	2276	2347	2375	2214	2224	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	2698	2815	2887	3011	3007	3184	3307	3345	3351	3425	3589	3749
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	1805	1793	1803	1893	1963	1909	1952	2124	2250	2389	2543	2627
Samoa	2729	2965	3142	3352	3601	4054	4035	4381	4301	4262	4362	4670
Solomon Islands	1286	1224	1152	1324	1433	1548	1767	1817	2192	2466	2717	2640
Timor-Leste <sup>b</sup>	1110	1305	910	911	3285	4089	6190	6138	8516	5948	7275	...
Tonga	3400	3608	3773	3927	4089	4210	4264	4256	4493	4538	4742	4890
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	3354	3233	3066	3170	3313	3507	3776	4038	4319	4263	4289	4558
<b>Developed Member Economies</b>												
Australia	26353	27392	28745	29873	31274	32523	34097	36003	36982	39337	38418	39749
Japan	25975	26602	27241	27960	29333	30441	31800	33370	33589	32064	33924	34262
New Zealand	21097	22133	22904	23540	24586	25308	27123	28794	28956	29144	29558	30110
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>2457</b>	<b>2614</b>	<b>2801</b>	<b>3034</b>	<b>3338</b>	<b>3706</b>	<b>4140</b>	<b>4650</b>	<b>5007</b>	<b>5338</b>	<b>5795</b>	<b>6115</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>3482</b>	<b>3655</b>	<b>3859</b>	<b>4107</b>	<b>4445</b>	<b>4836</b>	<b>5302</b>	<b>5847</b>	<b>6194</b>	<b>6465</b>	<b>6951</b>	<b>7270</b>

... = Data not available at cutoff date, GDP = gross domestic product, PPP = purchasing power parity.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b GDP estimates prior to 2004 refer to non-oil GDP. Before 2002, estimates include the value added of United Nations activities.

c For reporting economies only.

Sources: ADB staff estimates using World Development Indicators Online (World Bank 2012), country sources, CEIC data, and US Bureau of Economic Analysis.

**Table 2.3 GNI Per Capita, Atlas Method**  
(current dollars)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	200	230	270	300	290	370	410	...
Armenia	...	450	660	710	800	950	1150	1470	1920	2570	3340	3050	3200	3360
Azerbaijan	...	400	610	660	720	820	950	1270	1890	2710	3870	4800	5380	5290
Georgia	...	540	750	720	770	910	1100	1360	1680	2090	2460	2540	2680	2860
Kazakhstan	...	1280	1260	1350	1520	1800	2300	2950	3860	4980	6150	6780	7500	8220
Kyrgyz Republic	...	360	280	280	290	340	400	450	500	610	770	860	840	920
Pakistan	410	470	470	480	490	540	620	710	780	850	940	990	1050	1120
Tajikistan	840	200	170	170	170	210	280	340	340	470	700	750	810	870
Turkmenistan	830	610	650	750	880	1140	1470	1650	1900	2270	3030	3460	3790	4110
Uzbekistan	...	580	630	560	450	420	460	530	600	760	960	1130	1300	1510
<b>East Asia</b>														
China, People's Rep. of	330	530	930	1000	1100	1270	1500	1740	2040	2480	3040	3620	4270	4930
Hong Kong, China	12660	23490	26570	25930	24850	25850	27500	28150	29520	31220	32950	31410	32780	35160
Korea, Rep. of	6000	10770	9910	10890	11830	12680	14830	16900	18920	21140	21430	19650	19720	20870
Mongolia	1430	460	460	480	530	610	750	890	1110	1390	1770	1760	1870	2320
Taipei, China <sup>a</sup>	8174*	13086*	13870*	14363*	14666*	14597*	15560*	16497*	17577*	18371*	18217*	17579*	19251*	20252*
<b>South Asia</b>														
Bangladesh	290	330	380	380	380	400	440	480	500	520	570	640	700	770
Bhutan	580	550	720	770	810	890	1040	1070	1350	1500	1520	1710	1870	2070
India	390	370	450	460	470	530	620	730	810	950	1030	1150	1260	1410
Maldives	...	...	2140	2330	2570	3210	3610	3370	4070	4630	5600	5660	6150	6530
Nepal	210	200	220	230	230	240	270	290	320	350	400	440	490	540
Sri Lanka	470	700	860	830	860	950	1070	1210	1350	1540	1770	1970	2260	2580
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a, b</sup>	12790	16090	14960	16350	17400	18040	20190	23210	27570	30720	33680	31800	30395*	31579*
Cambodia	140	280	290	310	310	350	400	460	520	590	670	700	750	830
Indonesia	600	980	560	660	720	890	1070	1220	1370	1600	1950	2160	2500	2940
Lao PDR	200	360	280	310	320	340	390	460	510	620	760	900	1010	1130
Malaysia	2370	4010	3420	3510	3740	4100	4660	5110	5610	6310	7170	7230	7760	8420
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	730	1030	1050	1040	1000	1040	1140	1210	1310	1510	1770	1870	2060	2210
Singapore	11450	22420	24500	22090	21780	22860	24760	27240	30620	33760	35750	36030	39410	42930
Thailand	1480	2720	1930	1880	1870	2030	2340	2560	2830	3200	3640	3720	4150	4420
Viet Nam	130	260	390	410	430	480	550	630	700	790	920	1030	1160	1260
<b>The Pacific</b>														
Cook Islands <sup>a</sup>	3852*	5367*	6288*	5948*	5724*	6706*	7423*	8176*	8188*	9847*	9804*	9656*	9587*	...
Fiji	1790	2460	2230	2140	2170	2420	3030	3590	3620	3820	4030	3890	3610	3680
Kiribati	730	1160	1380	1350	1270	1360	1610	1780	1820	1830	1960	1840	2010	2110
Marshall Islands	1760	3040	2850	2970	2970	3100	3330	3560	3610	3730	3720	3640	3640	3910
Micronesia, Fed. States of	1760	2220	2220	2250	2250	2350	2390	2510	2520	2510	2480	2640	2730	2900
Nauru <sup>a</sup>	...	3457*	2130*	2034*	1715*	1935*	2535*	2684*	2453*	2343*	4672*	4185*	4792*	...
Palau	...	5770	6250	6470	6280	6420	7190	7770	7970	8270	6700	6230	6560	7250
Papua New Guinea	820	1040	620	550	510	500	570	680	720	940	1100	1190	1300	1480
Samoa	1070	1010	1420	1450	1450	1520	1860	2090	2260	2570	2770	2870	3030	3190
Solomon Islands	710	910	1020	940	850	840	860	890	960	1020	1050	960	1030	1110
Timor-Leste	...	...	400	480	330	330	480	740	1180	1850	2900	2250	2730	...
Tonga	1220	2010	2030	1910	1870	1950	2250	2470	2750	2930	3290	3300	3340	3580
Tuvalu <sup>a</sup>	...	...	...	2910	3480	2510	3290	3780	4020	4700	5000	5260	4600	5010
Vanuatu	1200	1270	1430	1370	1230	1350	1580	1760	1950	2110	2460	2520	2630	2870
<b>Developed Member Economies</b>														
Australia	17460	19440	21260	20260	20120	21280	25680	30440	34330	37110	42270	43860	46200	51910*
Japan	27580	41350	35040	35600	33750	34010	37150	39140	38600	37650	37840	37580	42050	45180
New Zealand	12970	14950	13760	13530	13930	16640	21070	24990	25570	27320	27960	28740	29350	...

... = Data not available at cutoff date, \* = Provisional/preliminary/estimate/budget figure, GDP = gross domestic product, GNI = gross national income.

a Estimates based on GDP from the country source.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); ADB staff estimates using Atlas method based on country sources for Australia (2011); Brunei Darussalam (2010–2011); the Cook Islands (1990–2010); Nauru (1995–2010); and Taipei, China (1990–2011).



## National Accounts

Table 2.4 **Agriculture Value Added**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	43.7	42.0	34.2	35.2	33.7	34.5	28.5	32.2	28.8	...
Armenia	...	40.8	25.1	27.9	25.7	23.4	24.4	20.6	20.2	20.0	18.1	18.6	18.8	22.1
Azerbaijan	29.3	26.9	17.0	16.0	15.1	13.4	11.7	9.8	7.4	6.9	5.9	6.5	5.9	5.8
Georgia	...	...	21.7	22.2	20.4	20.4	17.8	16.5	12.7	10.6	9.3	9.2	8.3	9.2
Kazakhstan	...	12.8	8.6	9.3	8.5	8.3	7.4	6.6	5.7	5.8	5.4	6.2	4.7	5.4
Kyrgyz Republic	33.6	43.1	36.6	37.0	37.3	36.7	32.8	31.3	32.0	30.2	26.2	20.3	18.7	19.7
Pakistan	26.0	26.1	25.9	24.1	23.4	23.4	22.2	21.5	20.4	20.5	20.3	21.6	21.2	21.6
Tajikistan	30.1	35.9	27.3	26.1	24.6	27.0	21.5	23.8	23.9	21.9	22.5	20.6	21.8	27.0
Turkmenistan	32.2	16.9	22.9	24.7	22.0	20.3	19.4	18.8	17.4	19.1	12.3	12.3	14.5	...
Uzbekistan	33.2	32.4	34.4	34.0	34.5	33.1	31.1	28.1	27.9	25.9	21.9	20.6	19.8	19.1
<b>East Asia</b>														
China, People's Rep. of	27.1	20.0	15.1	14.4	13.7	12.8	13.4	12.1	11.1	10.8	10.7	10.3	10.1	10.1
Hong Kong, China	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	...
Korea, Rep. of	8.7	6.2	4.6	4.4	4.0	3.7	3.7	3.3	3.2	2.9	2.7	2.8	2.6	2.7
Mongolia	15.2	38.0	29.1	24.9	20.5	23.5	25.4	24.7	19.6	20.5	21.4	19.6	16.2	15.3
Taipei, China	4.2	3.5	2.1	2.0	1.9	1.8	1.7	1.7	1.7	1.5	1.6	1.7	1.6	1.7
<b>South Asia</b>														
Bangladesh	30.2	26.4	25.5	24.1	22.7	21.8	21.0	20.1	19.6	19.2	19.0	18.6	18.6	18.3
Bhutan	34.9	31.7	27.4	27.0	26.9	25.8	25.0	23.3	22.1	19.2	19.0	18.7	17.5	...
India	29.3	26.5	23.4	23.2	20.9	21.0	19.0	18.8	18.3	18.3	17.8	17.7	17.7	17.2
Maldives	...	...	...	6.8	6.6	5.9	5.9	7.5	6.1	5.4	5.4	4.0	3.8	3.5
Nepal	48.4	38.9	37.8	36.6	37.4	36.5	35.9	35.2	33.6	32.5	31.7	33.0	35.4	36.9
Sri Lanka	24.2	19.5	17.6	16.8	14.3	13.2	12.5	11.8	11.3	11.7	13.4	12.7	12.8	12.1
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	1.0	1.2	1.0	1.1	1.1	1.2	1.1	0.9	0.7	0.7	0.6	0.9	0.8	0.6
Cambodia	56.5	49.6	37.9	36.7	32.9	33.6	31.2	32.4	31.7	31.9	34.9	35.7	36.0	36.7
Indonesia	19.4	17.1	15.6	15.3	15.5	15.2	14.3	13.1	13.0	13.7	14.5	15.3	15.3	14.7
Lao PDR	61.2	55.0	48.5	45.5	42.7	41.0	39.0	36.7	32.4	33.4	32.2	32.5	30.3	...
Malaysia	15.0	12.7	8.3	7.7	8.7	9.1	9.1	8.4	8.7	10.1	10.1	9.3	10.5	12.0
Myanmar	57.3	60.0	57.2	57.1	54.5	50.6	48.2	46.7	43.9	43.3	40.3	38.1	36.4	...
Philippines	21.9	21.6	14.0	13.2	13.1	12.7	13.3	12.7	12.4	12.5	13.2	13.1	12.3	12.8
Singapore	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Thailand	10.0	9.1	8.5	8.6	8.7	9.5	9.3	9.2	9.4	9.4	10.1	10.0	10.9	...
Viet Nam	38.7	27.2	24.5	23.2	23.0	22.5	21.8	21.0	20.4	20.3	22.2	20.9	20.6	22.0
<b>The Pacific</b>														
Cook Islands	20.7	9.5	10.3	7.9	7.4	8.8	6.7	6.9	5.5	5.7	4.9	4.8	4.9	...
Fiji	...	18.8	16.5	14.3	14.8	14.3	14.1	14.1	14.4	14.5	14.2	12.8	11.6	...
Kiribati	3.8	29.0	22.0	22.1	23.9	25.5	26.6	23.0	23.1	24.1	24.8	24.4	24.3	...
Marshall Islands	...	...	10.2	9.9	9.2	10.0	9.9	9.0	8.9	9.0	10.6	12.5	15.0	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	7.0	5.7	6.1	7.3	7.4	7.2	7.8	7.8	9.3	5.3	4.1	...	...
Palau	...	5.9	4.2	2.8	2.6	3.1	3.6	5.6	6.9	6.2	6.6	6.1	5.9	5.6
Papua New Guinea	29.7	35.1	35.2	35.6	38.6	37.4	34.9	34.0	32.1	32.2	32.8	33.1	31.5	31.1
Samoa	...	18.4	16.7	14.8	14.4	12.3	13.2	12.3	12.0	12.0	11.6	11.7	9.7	9.9
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	29.4	25.8	24.0	32.1	32.7	11.4	7.1	4.9	5.0	3.7	5.5	4.5	...
Tonga	34.7	23.7	22.1	20.4	20.6	21.9	22.7	20.0	18.0	19.2	17.4	17.2	18.3	18.9
Tuvalu	25.6	24.0	19.4	20.2	18.7	18.3	19.5	21.6	22.9	23.8	21.7	22.7	22.5	23.2
Vanuatu	20.7	16.6	24.3	24.8	25.0	23.4	24.4	22.9	21.5	21.7	20.7	21.5	...	...
<b>Developed Member Economies</b>														
Australia	4.6	3.3	3.4	3.8	4.3	3.2	3.4	3.2	3.0	2.4	2.5	2.5	2.4	2.8
Japan	2.4	1.8	1.7	1.5	1.5	1.4	1.3	1.2	1.2	1.1	1.1	1.2	1.2	...
New Zealand	6.6	7.0	8.4	8.6	6.4	6.3	5.9	5.0	5.6	6.9	5.5	5.5	5.5	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

Table 2.5 **Industry Value Added**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	21.7	21.4	25.1	26.0	27.0	25.8	26.3	21.9	21.3	...
Armenia	...	31.0	38.3	35.8	38.5	41.5	40.6	44.7	44.1	43.2	42.8	35.2	36.1	31.7
Azerbaijan	33.7	32.9	45.1	46.8	49.9	52.3	54.3	63.2	68.0	70.0	69.2	60.0	64.1	66.2
Georgia	...	...	22.1	21.8	24.1	25.4	26.2	26.5	24.6	24.0	21.6	21.6	22.0	23.2
Kazakhstan	...	31.2	40.1	38.4	38.0	37.0	36.9	39.2	40.8	38.7	41.2	39.0	41.9	40.3
Kyrgyz Republic	35.5	19.4	31.3	28.7	23.1	22.1	23.8	22.0	19.6	18.7	22.8	25.6	28.2	27.9
Pakistan	25.2	23.8	23.3	24.0	23.9	23.9	27.0	27.1	26.9	26.9	26.8	24.7	25.4	24.9
Tajikistan	38.4	36.5	38.4	39.7	38.8	37.0	34.6	30.7	30.5	29.8	27.8	27.2	27.9	22.4
Turkmenistan	29.6	65.3	41.8	42.3	42.4	41.3	40.1	37.6	36.3	38.1	53.7	53.5	48.4	...
Uzbekistan	34.8	27.8	23.1	22.6	22.2	23.5	25.2	28.8	29.9	29.9	32.3	33.6	33.4	32.6
<b>East Asia</b>														
China, People's Rep. of	41.3	47.2	45.9	45.2	44.8	46.0	46.2	47.4	47.9	47.3	47.5	46.3	46.7	46.8
Hong Kong, China	24.4	15.2	12.7	11.9	11.1	10.2	9.5	8.8	8.2	7.2	7.5	7.3	7.1	...
Korea, Rep. of	39.9	39.3	38.1	36.6	36.2	36.7	38.1	37.7	37.2	37.1	36.5	36.8	38.8	39.2
Mongolia	40.6	27.5	21.9	22.0	22.8	25.0	29.8	34.4	43.0	41.9	34.4	33.0	37.5	36.3
Taipei, China	40.7	34.7	31.5	29.6	31.3	32.2	32.7	32.2	32.3	31.4	29.1	28.9	31.1	29.6
<b>South Asia</b>														
Bangladesh	21.5	24.6	25.3	25.9	26.4	26.3	26.6	27.2	27.9	28.4	28.5	28.6	28.4	28.2
Bhutan	24.6	33.5	36.0	37.5	38.3	39.1	37.0	36.6	39.0	45.4	44.5	43.2	44.6	...
India	26.9	27.8	26.2	25.3	26.5	26.2	27.9	28.1	28.8	29.0	28.3	27.6	27.1	26.4
Maldives	...	...	...	13.0	13.4	13.5	13.0	14.8	12.9	12.6	17.3	14.7	15.2	15.7
Nepal	12.3	17.7	17.3	17.3	17.5	17.6	17.3	17.1	16.7	16.6	16.8	15.9	15.1	14.8
Sri Lanka	28.9	29.3	29.9	30.6	28.0	28.4	28.6	30.2	30.6	29.9	29.4	29.7	29.4	29.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	61.6	54.3	63.7	60.0	60.7	64.1	67.9	71.6	73.2	71.3	74.1	65.4	66.8	71.7
Cambodia	11.3	14.8	23.0	23.6	25.6	26.3	27.2	26.4	27.6	26.8	23.8	23.1	23.3	23.5
Indonesia	39.1	41.8	45.9	46.5	44.5	43.7	44.6	46.5	46.9	46.8	48.1	47.7	47.0	47.2
Lao PDR	14.5	19.0	19.1	18.3	19.5	21.3	20.5	23.5	29.8	28.3	27.7	26.2	27.7	...
Malaysia	41.5	40.5	46.8	44.7	43.9	45.4	47.4	46.9	47.0	45.0	45.6	41.4	41.5	40.7
Myanmar	10.5	9.9	9.7	10.6	13.0	14.3	16.4	17.5	19.3	20.4	22.7	24.6	26.0	...
Philippines	34.5	32.1	34.5	34.5	34.6	34.6	33.8	33.8	33.5	33.1	32.9	31.7	32.6	31.5
Singapore	31.9	33.3	34.5	31.8	31.9	31.1	32.8	31.6	31.2	28.9	26.6	27.9	27.9	26.6
Thailand	37.2	37.6	36.9	36.5	37.1	38.1	38.1	38.8	39.4	39.6	39.6	38.7	40.1	...
Viet Nam	22.7	28.8	36.7	38.1	38.5	39.5	40.2	41.0	41.5	41.5	39.8	40.2	41.1	40.3
<b>The Pacific</b>														
Cook Islands	7.4	7.6	8.3	8.5	8.9	10.5	9.7	9.6	8.7	8.7	9.0	10.0	9.1	...
Fiji	...	22.8	21.6	22.7	22.2	21.4	22.5	19.2	19.2	18.5	18.5	20.0	21.7	...
Kiribati	8.6	8.8	11.6	11.3	10.2	9.6	8.7	7.6	8.0	8.4	8.2	8.1	7.9	...
Marshall Islands	...	...	11.3	10.9	13.7	11.2	10.3	9.2	11.8	13.3	13.4	11.9	12.5	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	11.1	26.9	21.1	12.1	11.0	-1.8	-6.5	2.1	17.6	38.1	51.1	...	...
Palau	...	9.4	12.3	14.1	16.9	17.1	16.9	13.5	12.5	10.3	8.0	6.7	8.6	8.1
Papua New Guinea	31.2	33.3	40.7	39.8	37.3	39.6	42.1	44.3	47.0	47.0	46.3	43.2	45.1	43.9
Samoa	...	29.4	26.8	28.1	28.2	30.2	30.3	30.5	29.6	30.9	28.4	25.8	27.4	26.7
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	25.5	18.5	16.4	19.5	16.5	64.7	78.2	85.5	83.7	86.3	78.6	81.2	...
Tonga	13.6	21.6	20.7	20.8	20.3	19.8	18.7	18.9	17.7	18.2	18.2	18.6	20.0	22.0
Tuvalu	14.5	14.0	7.8	9.1	9.1	11.3	10.4	8.5	6.9	8.3	17.0	14.8	13.9	9.3
Vanuatu	12.3	11.5	11.9	9.5	9.4	8.5	8.0	8.2	8.5	8.4	9.7	10.8	...	...
<b>Developed Member Economies</b>														
Australia	31.7	29.3	27.0	26.2	26.1	26.8	26.6	27.2	28.4	28.4	28.1	29.1	27.3	27.8
Japan	37.9	33.0	31.1	30.0	29.1	29.1	29.0	28.1	28.1	28.2	27.5	26.0	27.5	...
New Zealand	26.5	27.3	25.0	24.4	25.2	24.6	25.0	25.3	24.8	24.6	24.9	24.0	24.1	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

Table 2.6 **Services Value Added**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	34.6	36.6	40.7	38.8	39.3	39.7	45.2	45.9	49.8	...
Armenia	...	28.2	36.5	36.2	35.8	35.1	35.1	34.6	35.6	36.8	39.1	46.2	45.1	46.2
Azerbaijan	37.0	40.2	37.9	37.2	35.1	34.4	34.0	27.0	24.6	23.0	25.0	33.4	30.0	28.0
Georgia	...	...	56.1	56.0	55.5	54.2	56.0	57.0	62.7	65.4	69.2	69.2	69.8	67.5
Kazakhstan	...	56.0	51.3	52.4	53.5	54.7	55.7	54.2	53.5	55.6	53.3	54.8	53.4	54.3
Kyrgyz Republic	31.0	37.5	32.1	34.3	39.5	41.2	43.4	46.7	48.4	51.1	51.1	54.1	53.1	52.4
Pakistan	48.8	50.1	50.7	51.9	52.8	52.7	50.8	51.4	52.8	52.6	52.9	53.7	53.4	53.4
Tajikistan	31.5	27.6	34.3	34.2	36.6	36.0	44.0	45.6	45.6	48.3	49.7	52.2	50.3	50.6
Turkmenistan	38.2	17.9	35.2	33.0	35.6	38.4	40.4	43.6	46.3	42.8	34.0	34.2	37.0	...
Uzbekistan	32.0	39.8	42.5	43.4	43.4	43.4	43.7	43.1	42.2	44.2	45.9	45.8	46.8	48.3
<b>East Asia</b>														
China, People's Rep. of	31.5	32.9	39.0	40.5	41.5	41.2	40.4	40.5	40.9	41.9	41.8	43.4	43.2	43.1
Hong Kong, China	75.4	84.7	87.2	88.0	88.8	89.7	90.5	91.2	91.7	92.8	92.5	92.6	92.9	...
Korea, Rep. of	51.5	54.6	57.3	59.0	59.8	59.6	58.1	59.0	59.7	60.0	60.8	60.4	58.5	58.1
Mongolia	44.2	34.5	49.0	53.1	56.7	51.4	44.8	40.9	37.4	37.7	44.2	47.4	46.3	48.3
Taipei, China	55.0	61.8	66.4	68.4	66.8	66.1	65.5	66.1	66.1	67.1	69.4	69.4	67.2	68.7
<b>South Asia</b>														
Bangladesh	48.3	49.1	49.2	50.0	50.9	52.0	52.4	52.6	52.5	52.4	52.5	52.8	53.0	53.5
Bhutan	40.5	34.8	36.6	35.5	34.8	35.1	38.0	40.1	38.9	35.4	36.5	38.1	37.9	...
India	43.8	45.7	50.5	51.5	52.7	52.8	53.0	53.1	52.9	52.7	53.9	54.7	55.1	56.4
Maldives	...	...	...	80.2	80.0	80.6	81.1	77.7	80.9	82.1	77.3	81.3	81.0	80.9
Nepal	39.3	43.4	44.9	46.1	45.1	45.9	46.8	47.7	49.7	50.9	51.5	51.2	49.5	48.3
Sri Lanka	46.9	51.3	52.5	52.6	57.7	58.3	58.8	58.0	58.0	58.4	57.2	57.6	57.8	58.0
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	37.5	44.6	35.3	38.8	38.2	34.6	31.0	27.5	26.1	28.0	25.3	33.7	32.5	27.7
Cambodia	32.2	35.5	39.1	39.7	41.5	40.1	41.7	41.2	40.8	41.3	41.3	41.3	40.7	39.8
Indonesia	41.5	41.1	38.5	38.3	40.1	41.1	41.0	40.3	40.1	39.5	37.5	37.0	37.6	38.1
Lao PDR	24.3	26.0	32.4	36.2	37.8	37.7	40.5	39.8	37.7	38.3	40.1	41.3	42.0	...
Malaysia	43.5	46.8	44.9	47.6	47.4	45.5	43.5	44.7	44.3	44.9	44.4	49.3	48.0	47.3
Myanmar	32.2	30.1	33.1	32.4	32.5	35.1	35.5	35.8	36.8	36.3	37.1	37.3	37.6	...
Philippines	43.6	46.3	51.6	52.3	52.3	52.7	52.9	53.5	54.1	54.5	53.9	55.2	55.1	55.7
Singapore	67.8	66.5	65.4	68.1	68.1	68.8	67.1	68.4	68.8	71.1	73.4	72.1	72.1	73.4
Thailand	52.8	53.3	54.6	54.9	54.2	52.4	52.6	52.0	51.2	51.0	50.3	51.3	49.0	...
Viet Nam	38.6	44.1	38.7	38.6	38.5	38.0	38.0	38.0	38.1	38.2	37.9	38.8	38.3	37.7
<b>The Pacific</b>														
Cook Islands	71.9	83.0	81.4	83.6	83.8	80.7	83.6	83.5	85.8	85.6	86.1	85.2	86.0	...
Fiji	...	58.3	61.9	62.9	63.0	64.3	63.4	66.8	66.4	67.0	67.4	67.2	66.7	...
Kiribati	87.6	62.1	66.4	66.6	65.9	64.9	64.7	69.5	68.9	67.5	67.0	67.5	67.8	...
Marshall Islands	...	...	78.5	79.2	77.1	78.8	79.9	81.8	79.2	77.7	76.1	75.5	72.5	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	81.9	67.5	72.8	80.6	81.6	94.5	98.7	90.1	73.1	56.7	44.8	...	...
Palau	...	84.7	83.5	83.1	80.5	79.8	79.5	80.9	80.6	83.5	85.4	87.2	85.5	86.3
Papua New Guinea	39.0	31.7	24.1	24.5	24.1	23.0	23.0	21.7	20.9	20.8	20.9	23.7	23.4	25.0
Samoa	...	52.2	56.6	57.0	57.4	57.5	56.5	57.2	58.4	57.1	60.0	62.5	62.9	63.4
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	45.1	55.7	59.6	48.4	50.8	23.9	14.7	9.6	11.3	9.9	15.9	14.3	...
Tonga	51.7	54.7	57.2	58.8	59.1	58.3	58.6	61.1	64.3	62.6	64.4	64.1	61.7	59.1
Tuvalu	59.8	62.0	72.8	70.7	72.2	70.3	70.1	69.9	70.2	67.9	61.3	62.5	63.6	67.4
Vanuatu	67.0	71.9	63.8	65.7	65.6	68.0	67.7	68.8	70.0	69.9	69.5	67.7	...	...
<b>Developed Member Economies</b>														
Australia	63.7	67.3	69.6	70.0	69.6	70.0	70.0	69.6	68.6	69.2	69.3	68.4	70.3	69.4
Japan	59.8	65.2	67.2	68.6	69.4	69.5	69.6	70.6	70.7	70.6	71.3	72.8	71.4	...
New Zealand	66.9	65.7	66.6	67.0	68.4	69.1	69.1	69.7	69.6	68.6	69.6	70.5	70.5	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

**Table 2.7 Private Consumption Expenditure**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	111.2	126.6	120.5	115.7	109.5	109.2	113.2	98.5	97.4	...
Armenia	...	106.1	96.7	93.3	88.6	83.1	82.5	75.5	72.3	71.6	71.6	80.4	82.0	82.9
Azerbaijan	52.6	84.3	64.4	61.5	62.9	60.0	55.8	42.1	37.1	33.4	33.4	42.8	39.4	39.1
Georgia	...	...	90.5	79.5	77.8	72.3	73.2	66.9	78.7	70.7	76.9	81.6	74.9	74.2
Kazakhstan	...	71.1	61.9	57.9	54.6	54.5	53.5	49.9	45.7	45.1	43.5	47.4	44.6	42.4
Kyrgyz Republic	71.3	75.0	65.7	64.8	67.5	77.9	76.0	84.5	95.1	87.5	92.5	78.3	84.6	84.1
Pakistan	71.4	72.4	75.4	76.3	74.8	73.9	74.2	76.9	75.0	75.5	76.5	81.3	82.3	84.1
Tajikistan	63.0	68.5	94.6	84.3	80.8	78.5	74.0	81.1	82.9	84.2	87.6	86.3	84.7	...
Turkmenistan	49.3	60.6	36.5	52.3	45.7	56.8	62.1	46.6	32.3	36.1	51.4	48.9	45.5	...
Uzbekistan	61.4	50.6	61.9	61.6	60.2	55.7	51.7	50.9	48.2	47.9	47.4	48.7	49.0	51.1
<b>East Asia</b>														
China, People's Rep. of	50.6	46.7	46.2	45.1	44.1	42.4	40.8	39.3	38.0	36.2	35.6	36.3	35.1	34.5
Hong Kong, China	57.1	62.0	59.0	60.3	58.6	58.3	59.4	58.2	58.5	60.2	61.0	62.4	62.7	65.2
Korea, Rep. of	50.7	52.3	54.8	55.9	56.7	54.8	52.6	53.8	54.5	54.4	54.7	54.1	52.6	52.9
Mongolia	62.2	63.4	71.6	74.8	77.4	73.0	65.9	55.6	47.3	48.6	55.6	57.8	53.7	50.8
Taipei, China	53.9	57.2	58.8	60.7	59.9	59.8	59.9	60.4	59.2	58.1	60.3	60.7	58.0	59.6
<b>South Asia</b>														
Bangladesh	82.9	82.2	77.5	77.5	76.8	76.0	74.9	74.4	74.2	74.1	74.4	74.7	74.5	74.9
Bhutan	50.4	40.5	47.7	44.9	43.2	44.2	44.1	41.1	38.2	38.1	39.8	37.9	41.7	...
India	66.2	63.1	63.7	64.4	63.2	61.7	59.1	58.3	57.7	57.0	57.7	57.4	56.5	56.0
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	80.2	82.1	82.8	79.6	79.5	82.3	81.0	80.3	79.8	78.5	81.8
Sri Lanka	74.8	70.7	70.9	70.4	71.3	71.8	70.9	69.0	67.7	67.2	70.0	64.4	65.2	69.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	26.5	36.6	24.8	26.3	25.6	27.3	26.6	22.5	19.8	20.2	17.7	24.4	23.2	19.9
Cambodia	90.4	92.6	86.7	83.1	83.9	83.6	85.1	84.3	81.0	78.1	79.4	76.1	81.3	82.9
Indonesia	58.9	61.6	61.7	63.2	67.6	68.1	66.8	64.4	62.7	63.5	60.6	58.7	56.7	54.6
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	51.8	47.9	43.8	46.1	45.0	44.6	44.0	44.2	44.3	45.2	44.7	48.8	47.5	47.5
Myanmar	88.3	86.6	87.7	88.5	89.8	89.0	87.7	86.9	84.8	85.1	82.6	84.2	78.3	...
Philippines	71.2	74.1	72.2	73.6	73.9	74.4	74.5	75.0	74.6	73.5	74.3	74.7	71.6	73.7
Singapore	45.4	41.4	41.9	45.7	46.3	45.5	42.1	40.1	38.8	37.3	40.2	40.2	38.4	39.4
Thailand	53.3	51.2	54.0	55.9	55.6	55.5	55.8	55.9	54.6	52.7	53.8	53.9	52.1	...
Viet Nam	89.6	73.6	66.5	64.9	65.1	66.3	65.1	63.5	63.3	64.8	67.4	66.5	66.5	64.3
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	60.9	70.4	70.1	66.4	68.5	73.5	72.2	77.4	77.3	81.8	73.9	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	88.0	42.0	42.6	42.4	42.3	42.5	43.7	45.1	45.6	48.8	52.8	51.9	50.2
Papua New Guinea	59.0	42.7	44.6	47.7	55.4	50.4	52.4	48.0	47.1	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	111.6	99.8	109.3	109.4	36.1	21.4	14.4	16.2	12.1	17.8	14.7	...
Tonga	93.7	93.8	91.7	90.1	96.9	95.8	97.8	100.7	93.1	101.9	103.3	104.4	98.2	90.9
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	63.3	56.0	...	...	...	...	...	...	...	...	58.4	...	...	...
<b>Developed Member Economies</b>														
Australia	55.1	58.3	58.4	59.1	58.4	58.9	58.3	57.7	56.5	56.0	55.9	54.0	55.1	54.0
Japan	53.0	55.4	56.5	57.3	57.9	57.6	57.3	57.8	57.9	57.3	58.3	60.1	59.2	60.3
New Zealand	61.1	58.9	59.7	58.3	59.1	59.2	58.8	59.5	59.8	58.1	59.0	59.6	59.4	60.0

... = Data not available at cutoff date, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

**Table 2.8 Government Consumption Expenditure**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	7.7	9.1	10.0	10.0	10.8	10.3	10.1	11.3	11.5	...
Armenia	...	11.3	12.2	11.5	10.5	10.4	10.2	10.5	10.1	10.2	10.2	13.3	13.1	13.7
Azerbaijan	17.6	12.8	15.2	13.6	12.4	12.4	12.9	10.4	8.5	9.7	8.5	11.1	10.9	9.5
Georgia	...	...	8.5	9.6	9.8	9.8	14.0	17.3	15.3	21.9	25.9	24.5	21.1	18.3
Kazakhstan	...	13.6	12.1	13.4	11.6	11.3	11.6	11.2	10.2	11.1	10.2	11.7	10.8	10.8
Kyrgyz Republic	25.0	19.5	20.0	17.5	18.6	16.8	18.2	17.5	18.0	17.1	17.5	18.4	18.1	18.5
Pakistan	15.1	11.7	8.6	7.8	8.7	8.8	8.2	7.8	10.8	9.2	12.5	8.1	8.0	7.9
Tajikistan	6.8	2.9	4.8	13.9	12.8	12.2	11.8	14.6	11.1	8.9	9.3	12.5	11.3	...
Turkmenistan	23.0	8.4	14.2	11.4	11.1	12.0	12.7	13.2	10.1	9.1	8.3	9.9	9.1	...
Uzbekistan	25.3	22.3	18.7	18.4	18.0	17.5	17.1	16.4	15.3	15.6	15.9	15.5	15.8	15.2
<b>East Asia</b>														
China, People's Rep. of	14.1	13.8	15.8	16.0	15.6	14.8	14.0	14.3	14.1	13.5	13.3	13.4	13.3	13.1
Hong Kong, China	7.2	8.4	9.1	9.9	10.3	10.5	9.9	8.8	8.3	8.1	8.3	8.8	8.4	8.3
Korea, Rep. of	11.8	11.2	12.0	12.7	12.6	13.0	13.3	13.9	14.5	14.7	15.3	16.0	15.2	15.4
Mongolia	29.8	13.1	18.0	19.5	19.1	14.8	14.5	12.4	11.7	13.1	15.3	14.7	13.7	14.0
Taipei, China	17.4	14.6	13.4	14.0	13.6	13.2	12.7	12.5	12.0	11.8	12.4	13.0	12.1	12.3
<b>South Asia</b>														
Bangladesh	4.2	4.6	4.6	4.5	5.0	5.3	5.5	5.5	5.5	5.5	5.3	5.3	5.4	5.8
Bhutan	16.3	18.0	21.9	21.1	20.4	20.1	21.3	22.3	21.3	19.1	19.0	21.4	20.0	...
India	11.7	10.9	12.6	12.4	11.9	11.3	10.9	10.9	10.3	10.3	10.9	12.0	11.9	11.7
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	8.1	8.4	8.7	8.6	8.9	8.7	9.2	9.9	10.8	10.0	9.6
Sri Lanka	13.2	14.7	13.7	13.1	12.7	12.2	12.6	13.1	15.4	15.3	16.2	17.6	15.6	14.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	22.0	26.8	25.8	29.4	27.2	24.1	22.1	18.4	18.1	22.6	17.1	23.3	22.4	17.3
Cambodia	7.2	4.9	5.2	5.3	7.6	7.3	6.3	5.8	3.5	5.7	5.6	8.0	6.3	6.0
Indonesia	8.8	7.8	6.5	6.7	7.3	8.1	8.3	8.1	8.6	8.3	8.4	9.6	9.1	9.0
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	13.8	12.4	10.2	12.0	13.0	13.0	12.6	11.5	11.2	11.6	11.5	13.0	12.2	13.0
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	10.1	11.4	11.4	11.1	10.6	10.2	9.4	9.0	9.2	9.3	8.8	9.9	9.7	9.6
Singapore	9.5	8.4	10.9	12.1	12.3	11.8	10.9	10.5	10.3	9.5	10.7	10.6	10.5	10.3
Thailand	10.0	11.3	13.5	13.4	13.1	12.9	13.1	13.7	13.5	13.9	14.4	15.8	15.4	...
Viet Nam	7.5	8.2	6.4	6.3	6.2	6.3	6.4	6.2	6.0	6.1	6.1	6.3	6.5	6.5
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	16.1	17.2	17.4	16.9	16.7	16.5	16.1	18.2	16.9	14.9	17.8	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	41.5	42.6	39.0	35.5	32.9	29.5	28.5	31.2	32.0	32.5	33.6	32.7	31.7
Papua New Guinea	24.8	17.1	16.6	16.2	16.7	13.9	16.6	16.1	16.8	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	35.2	39.8	47.8	51.7	29.2	11.6	13.4	19.7	17.9	26.2	23.4	...
Tonga	18.7	16.5	18.1	19.3	16.9	16.8	16.0	15.4	20.9	18.1	18.5	19.8	18.1	17.1
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	30.9	27.1	...	...	...	...	...	...	...	...	14.9	...	...	...
<b>Developed Member Economies</b>														
Australia	17.1	17.9	17.6	17.6	17.4	17.5	17.4	17.4	17.3	17.2	17.1	17.6	18.1	17.8
Japan	13.3	15.2	16.9	17.7	18.3	18.3	18.2	18.4	18.2	18.1	18.6	19.9	19.8	20.7
New Zealand	18.9	17.3	17.3	17.3	17.1	17.3	17.5	18.0	18.6	18.7	20.3	20.5	20.3	20.1

... = Data not available at cutoff date, GDP = gross domestic product.

<sup>a</sup> Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

Table 2.9 **Gross Domestic Capital Formation**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	11.3	11.7	17.8	21.8	24.5	18.8	18.1	17.4	17.5	...
Armenia	...	18.4	18.6	19.8	21.7	24.3	24.9	30.5	35.9	37.8	40.9	34.7	32.9	27.9
Azerbaijan	26.5	23.8	20.7	20.7	34.6	53.2	58.0	41.5	29.9	21.5	18.7	18.9	18.1	19.9
Georgia	...	...	26.6	30.3	28.5	31.3	31.9	33.5	30.9	32.1	26.0	13.0	21.6	25.6
Kazakhstan	...	23.3	18.1	26.9	27.3	25.7	26.3	31.0	33.9	35.5	27.5	29.4	25.4	22.4
Kyrgyz Republic	24.1	18.3	20.0	18.0	17.6	11.8	14.5	16.4	24.2	26.6	28.9	27.3	27.4	25.3
Pakistan	18.9	18.5	17.2	17.0	16.6	16.8	16.6	19.1	22.1	22.5	22.1	18.2	15.6	13.1
Tajikistan	12.3	28.7	9.4	9.7	9.4	10.0	12.2	11.6	16.0	24.6	26.5	24.8	23.8	...
Turkmenistan	40.1	33.6	34.7	31.7	27.6	25.4	23.1	22.9	19.5	18.2	13.5	11.4	14.4	...
Uzbekistan	32.1	24.2	19.6	21.1	21.2	20.8	23.9	23.0	29.6	28.2	32.0	29.9	26.6	25.0
<b>East Asia</b>														
China, People's Rep. of	36.1	41.9	35.1	36.3	37.9	41.2	43.3	42.1	43.0	41.7	44.0	48.3	48.2	48.6
Hong Kong, China	27.0	34.1	27.5	25.3	22.8	21.9	21.8	20.6	21.7	20.9	20.4	21.3	23.4	22.9
Korea, Rep. of	38.1	36.9	30.6	29.2	29.2	29.9	29.9	29.7	29.6	29.4	31.2	26.3	29.5	29.5
Mongolia	34.3	31.7	36.2	36.1	39.6	35.5	34.5	37.0	35.9	38.7	43.6	34.4	40.8	58.5
Taipei, China	24.4	26.7	25.7	19.8	19.3	19.9	23.7	22.7	22.7	22.1	22.4	17.7	22.8	21.2
<b>South Asia</b>														
Bangladesh	17.1	19.1	23.0	23.1	23.1	23.4	24.0	24.5	24.7	24.5	24.2	24.4	24.4	25.2
Bhutan	32.4	45.4	48.2	59.2	59.2	56.8	64.1	50.8	46.1	36.9	39.8	41.2	52.3	...
India	26.0	26.2	24.3	22.8	25.2	27.6	32.8	34.3	35.9	38.0	35.5	36.1	35.8	35.5
Maldives	...	31.3	26.3	...	...	...	...	...	...	...	...	...	...	...
Nepal	17.2	23.5	22.6	22.3	20.2	21.4	24.5	26.5	26.9	28.7	30.3	31.7	38.3	32.5
Sri Lanka	20.7	25.6	25.4	22.2	22.0	21.6	24.7	26.1	27.4	27.3	27.1	24.3	27.2	29.4
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	13.1	14.4	21.3	15.1	13.5	11.4	10.4	13.0	13.7	17.6	15.9	13.4
Cambodia	8.3	14.3	16.9	18.5	18.1	20.1	16.2	18.5	22.5	21.2	18.6	21.4	17.4	17.1
Indonesia	30.7	31.9	22.2	22.5	21.4	25.6	24.1	25.1	25.4	24.9	27.8	31.0	32.6	32.8
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	32.4	43.6	26.9	24.4	24.8	22.8	23.0	22.4	22.7	23.4	21.5	17.8	23.1	23.6
Myanmar	13.4	14.2	12.4	11.6	10.1	11.0	12.2	13.2	13.7	14.8	15.6	18.9	22.7	...
Philippines	24.2	22.5	18.4	22.1	24.5	23.0	21.6	21.6	18.0	17.3	19.3	16.6	20.5	21.7
Singapore	35.1	33.3	33.2	26.8	23.8	16.1	21.7	20.0	21.2	22.3	29.4	25.5	22.1	22.4
Thailand	41.6	42.9	22.3	23.2	22.8	23.9	25.7	30.5	27.1	25.6	28.4	20.6	24.9	...
Viet Nam	14.4	27.1	29.6	31.2	33.2	35.4	35.5	35.6	36.8	43.1	39.7	38.1	38.9	32.6
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	22.6	21.3	20.4	19.8	21.9	23.3	24.0	24.1	21.1	23.9	21.8	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	19.4	63.6	45.9	44.9	39.9	39.8	35.3	35.0	30.0	35.3	14.3	20.2	25.1
Papua New Guinea	24.4	21.9	21.9	23.0	25.0	21.4	21.4	17.5	15.7	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	25.6	30.3	38.0	29.3	8.8	4.8	3.6	3.9	4.8	14.9	14.1	...
Tonga	18.1	26.5	20.7	24.5	25.0	21.1	20.7	22.2	21.0	21.7	21.0	24.5	30.1	37.9
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	34.9	23.2	...	...	...	...	...	...	...	...	32.6	...	...	...
<b>Developed Member Economies</b>														
Australia	28.7	25.8	26.0	23.1	24.1	25.7	26.9	27.4	27.8	27.9	29.0	27.8	27.2	26.9
Japan	32.7	28.1	25.1	24.3	22.5	22.4	22.5	22.5	22.7	22.9	23.0	19.7	19.8	19.9
New Zealand	19.8	23.0	21.3	22.1	21.9	23.2	24.3	24.7	23.0	24.1	22.0	18.5	19.6	19.3

... = Data not available at cutoff date, GDP = gross domestic product.

<sup>a</sup> Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

**Table 2.10 Exports of Goods and Services**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	29.7	40.7	30.9	26.0	24.9	16.9	17.3	14.3	9.8	...
Armenia	...	23.9	23.4	25.5	29.4	32.2	29.7	28.8	23.4	19.2	15.0	15.5	20.8	23.7
Azerbaijan	43.9	32.5	40.2	41.5	42.8	42.0	48.8	62.9	66.5	68.1	65.8	51.6	54.3	58.7
Georgia	...	...	23.0	24.5	29.2	31.8	31.6	33.7	32.9	31.2	28.6	29.7	35.0	36.5
Kazakhstan	...	39.0	56.6	46.5	47.0	48.4	52.5	53.5	51.2	49.4	57.2	42.0	44.0	49.9
Kyrgyz Republic	29.2	29.5	41.8	36.7	39.6	38.7	42.6	38.3	41.7	52.9	53.5	54.7	51.6	57.2
Pakistan	14.8	16.7	13.4	14.7	15.2	16.7	15.7	15.7	15.2	14.2	12.9	12.9	13.6	14.2
Tajikistan	...	112.0	92.4	66.1	62.9	63.9	58.8	54.3	58.2	51.0	32.7	24.5	26.8	...
Turkmenistan	111.2	142.5	95.5	81.4	69.0	62.3	61.7	65.0	73.1	75.4	72.5	75.6	74.5	...
Uzbekistan	29.0	31.6	26.5	30.8	31.6	36.9	40.6	39.7	37.0	40.4	38.9	35.0	33.1	33.1
<b>East Asia</b>														
China, People's Rep. of	19.0	20.2	23.3	22.6	25.1	29.6	34.0	37.1	39.1	38.4	35.0	26.7	29.4	28.6
Hong Kong, China	130.6	143.2	143.3	138.7	149.5	171.0	190.2	198.7	205.5	208.0	212.4	195.1	223.0	229.7
Korea, Rep. of	27.6	28.5	38.6	35.7	33.1	35.4	40.9	39.3	39.7	41.9	53.0	49.7	52.3	56.2
Mongolia	...	...	...	...	...	57.7	68.1	64.2	59.4	59.6	54.0	50.3	54.7	63.5
Taipei, China	45.7	47.0	52.9	50.0	52.2	55.5	61.4	62.5	68.0	72.1	73.0	62.5	73.5	75.7
<b>South Asia</b>														
Bangladesh	6.1	10.9	14.0	15.4	14.3	14.2	15.5	16.6	19.0	19.8	20.3	19.4	18.4	22.9
Bhutan	26.8	37.8	29.0	28.1	24.6	25.8	32.1	39.7	62.6	55.0	46.6	45.7	39.8	...
India	7.1	11.0	13.2	12.8	14.5	15.2	17.6	19.3	21.1	20.4	23.6	20.1	22.8	24.6
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	22.6	17.7	15.7	16.7	14.6	13.4	12.9	12.8	12.4	9.6	8.9
Sri Lanka	30.5	35.9	38.2	38.4	34.9	34.7	35.3	32.3	30.1	29.1	24.8	21.3	22.4	23.1
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	61.8	59.7	67.4	69.5	67.1	69.3	68.8	70.2	71.7	67.9	78.3	72.8	81.4	81.3
Cambodia	2.4	31.2	49.9	52.7	55.4	56.5	63.6	64.1	68.6	65.3	65.5	59.9	54.1	54.1
Indonesia	25.3	26.3	41.0	39.0	32.7	30.5	32.2	34.1	31.0	29.4	29.8	24.2	24.6	26.3
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	74.5	94.1	119.8	110.4	108.3	106.9	115.4	112.9	112.2	106.2	99.5	91.4	93.7	91.6
Myanmar	1.9	0.8	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	...
Philippines	27.5	36.4	51.4	46.0	46.7	47.2	48.6	46.1	46.6	43.3	36.9	32.2	34.8	31.0
Singapore	177.4	183.0	192.3	187.8	188.8	207.4	219.3	229.7	233.4	217.7	233.2	198.6	207.2	209.0
Thailand	33.1	41.6	65.0	63.4	60.8	61.6	66.1	68.6	69.0	69.2	71.7	64.6	66.7	...
Viet Nam	26.4	32.8	55.0	54.6	56.8	59.3	65.7	69.4	73.6	76.9	77.9	68.3	77.5	87.0
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	59.3	56.8	56.8	56.0	56.1	51.7	53.0	49.7	48.1	53.8	48.3	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	14.6	52.1	55.0	54.9	54.6	61.6	61.4	57.5	61.8	63.3	61.8	64.5	73.7
Papua New Guinea	40.6	59.3	66.2	65.3	59.8	65.9	67.9	74.5	82.8	...	...	...	...	...
Samoa	39.3	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	0.4	1.2	11.4	12.1	67.7	82.5	97.4	100.0	96.9	94.2	95.4	...
Tonga	33.2	17.1	15.3	13.4	18.2	19.3	19.4	17.6	14.4	12.1	13.7	14.0	13.2	17.3
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	49.5	45.8	...	...	...	...	...	...	...	...	47.8	...	...	...
<b>Developed Member Economies</b>														
Australia	15.1	17.8	19.4	22.1	20.6	18.9	17.0	18.1	19.7	20.0	19.9	22.7	19.6	21.2
Japan	10.4	9.1	10.9	10.4	11.3	11.9	13.2	14.3	16.2	17.7	17.7	12.7	15.2	15.2
New Zealand	26.5	28.7	35.0	34.6	32.0	28.7	28.6	27.4	28.6	28.3	31.2	28.3	29.9	30.2

... = Data not available at cutoff date, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

Table 2.11 **Imports of Goods and Services**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	59.8	88.1	79.1	73.6	69.6	55.2	46.3	41.0	43.9	...
Armenia	...	62.2	50.5	46.1	46.6	50.0	45.3	43.2	39.3	39.2	40.7	43.0	45.3	47.3
Azerbaijan	39.2	53.4	38.4	37.3	50.0	65.5	72.7	52.9	38.8	28.5	23.5	23.1	20.7	25.0
Georgia	...	...	39.7	38.9	42.4	46.4	48.2	51.6	57.0	58.0	58.4	48.9	52.8	55.1
Kazakhstan	...	43.5	49.1	48.1	47.0	43.0	43.9	44.7	40.5	42.8	37.1	33.8	29.2	28.0
Kyrgyz Republic	49.5	42.4	47.6	37.0	43.3	45.3	51.3	56.8	79.0	84.1	92.6	78.7	81.7	85.5
Pakistan	20.2	19.4	14.7	15.7	15.3	16.1	14.6	19.6	23.2	21.3	23.9	20.4	19.4	19.2
Tajikistan	0.0	121.2	100.2	77.3	76.0	73.7	69.6	72.8	83.0	86.3	79.1	61.5	59.0	...
Turkmenistan	123.7	145.0	80.9	76.9	53.4	56.6	59.5	47.8	34.9	38.7	45.7	45.8	43.4	...
Uzbekistan	47.8	28.7	26.7	31.9	31.0	30.8	33.3	30.0	30.1	32.1	34.2	29.2	24.5	24.4
<b>East Asia</b>														
China, People's Rep. of	15.6	18.6	20.9	20.5	22.6	27.4	31.4	31.5	31.4	29.6	27.3	22.3	25.6	26.0
Hong Kong, China	122.0	147.6	138.8	134.2	141.2	161.8	181.3	186.3	194.1	197.1	202.2	187.6	217.7	226.0
Korea, Rep. of	28.3	29.0	35.7	33.5	31.7	33.1	36.7	36.6	38.3	40.4	54.2	46.0	49.7	54.1
Mongolia	...	...	...	...	...	74.9	79.1	67.9	53.5	58.3	67.2	57.5	62.4	86.1
Taipei, China	41.4	45.5	50.8	44.5	45.0	48.5	57.7	58.1	61.9	64.1	68.1	53.8	66.5	68.9
<b>South Asia</b>														
Bangladesh	13.5	17.3	19.2	21.5	19.0	20.0	20.8	23.0	25.2	26.7	28.8	26.6	25.0	31.6
Bhutan	31.9	42.6	53.5	46.4	44.1	43.5	58.8	63.8	67.0	57.3	57.7	62.2	58.4	...
India	8.5	12.2	14.2	13.6	15.5	15.9	19.3	22.0	24.2	24.4	28.7	25.5	26.9	29.8
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	33.2	28.5	28.5	29.5	29.5	31.3	31.7	33.3	34.7	36.4	32.8
Sri Lanka	38.5	45.5	48.4	44.5	41.4	40.7	44.2	41.3	41.1	39.5	38.5	27.8	30.7	37.6
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	37.3	55.8	35.8	39.2	41.6	36.0	31.8	27.3	25.2	27.9	27.6	35.8	32.9	29.1
Cambodia	8.4	47.4	61.7	61.4	64.3	66.6	70.9	72.7	76.0	72.9	67.8	63.0	59.5	59.5
Indonesia	23.7	27.6	30.5	30.8	26.4	23.1	27.5	29.9	25.6	25.4	28.8	21.4	23.0	24.9
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	72.4	98.0	100.6	93.0	91.1	87.3	95.0	91.0	90.4	86.3	77.2	71.1	76.6	75.7
Myanmar	3.6	1.7	0.6	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	...
Philippines	33.3	44.2	53.4	52.9	55.7	54.7	54.1	51.7	48.4	43.4	39.4	33.4	36.6	36.0
Singapore	167.4	166.2	179.5	172.3	171.3	179.5	193.6	200.3	204.0	187.0	212.6	174.8	178.7	182.3
Thailand	40.6	48.3	56.6	57.1	54.4	55.3	61.5	69.7	65.7	61.2	69.3	55.2	60.4	...
Viet Nam	35.7	41.9	57.5	56.9	62.0	67.7	73.3	73.5	78.2	92.7	93.1	78.7	87.8	91.2
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	58.8	65.7	64.7	59.1	63.1	65.0	65.3	69.5	63.4	74.3	61.7	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	63.5	103.3	81.2	78.9	70.2	73.6	68.4	70.2	65.2	78.0	59.3	61.7	69.9
Papua New Guinea	48.9	41.1	49.2	52.3	56.9	51.5	58.3	56.1	62.4	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	72.8	71.1	106.5	102.5	41.5	20.4	29.2	40.2	32.3	53.1	47.5	...
Tonga	63.8	54.7	46.7	49.0	55.5	53.6	54.1	57.7	51.1	55.5	58.0	63.8	58.0	60.9
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	76.7	54.8	...	...	...	...	...	...	...	...	56.1	...	...	...
<b>Developed Member Economies</b>														
Australia	17.1	19.8	21.4	21.9	20.6	21.0	19.6	20.6	21.2	21.1	22.0	22.1	20.0	19.7
Japan	9.4	7.7	9.4	9.8	9.9	10.2	11.3	12.9	14.9	16.1	17.5	12.3	14.0	16.1
New Zealand	26.3	27.9	33.3	32.3	30.2	28.3	29.3	29.6	30.0	29.1	32.5	26.7	28.4	29.4

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.



## National Accounts

Table 2.12 **Gross Domestic Saving**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	-18.8	-35.7	-30.5	-25.8	-20.2	-19.5	-23.3	-9.9	-8.9	...
Armenia	...	-17.5	-8.9	-4.8	0.9	6.5	7.4	14.0	17.7	18.2	18.2	6.3	4.9	3.4
Azerbaijan	31.8	2.9	20.4	24.9	24.7	27.6	31.3	47.5	54.4	56.9	58.1	46.1	49.8	51.3
Georgia	...	...	0.9	10.9	12.4	17.9	12.7	15.7	5.9	7.4	-2.7	-6.1	4.1	7.6
Kazakhstan	...	15.3	26.0	28.7	33.8	34.3	34.9	38.9	44.1	43.8	46.3	41.0	44.6	46.9
Kyrgyz Republic	3.7	5.5	14.3	17.7	13.8	5.3	5.8	-2.1	-13.1	-4.6	-10.1	3.3	-2.7	-2.5
Pakistan	13.5	15.8	16.0	15.9	16.5	17.3	17.6	15.2	14.1	15.4	11.0	10.7	9.7	8.0
Tajikistan	0.3	28.7	0.6	1.8	6.4	9.3	14.2	4.3	6.0	6.9	3.1	1.2	4.0	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	13.2	27.1	19.4	20.0	21.8	26.9	31.2	32.7	26.6	30.2	29.8	...	...	...
<b>East Asia</b>														
China, People's Rep. of	35.2	39.6	38.0	39.0	40.3	42.8	45.2	46.3	47.7	50.3	51.1	50.3	51.7	52.3
Hong Kong, China	35.7	29.6	31.9	29.8	31.1	31.2	30.7	33.0	33.1	31.8	30.7	28.8	28.9	26.5
Korea, Rep. of	37.6	36.5	33.3	31.3	30.7	32.2	34.1	32.3	31.0	30.9	30.0	29.9	31.9	31.8
Mongolia	8.0	23.4	10.4	5.7	3.4	12.2	19.5	32.0	36.8	34.5	33.4	33.3	32.0	35.2
Taipei, China	28.8	28.6	27.8	25.3	26.2	27.2	27.4	27.3	28.8	29.6	27.3	25.8	30.1	27.9
<b>South Asia</b>														
Bangladesh	12.9	13.1	17.9	18.0	18.2	18.6	19.5	20.0	20.3	20.4	20.3	20.1	20.1	19.3
Bhutan	33.4	41.5	30.3	33.9	36.4	35.6	34.6	36.6	42.9	26.4	16.1	27.2	33.7	...
India	22.8	24.4	23.7	23.5	26.3	29.8	32.4	33.4	34.6	36.8	32.0	33.8	32.3	...
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	11.7	9.5	8.6	11.7	11.6	9.0	9.8	9.8	9.4	11.5	8.6
Sri Lanka	12.0	14.6	15.4	16.5	16.0	16.0	16.4	17.9	17.0	17.6	13.9	17.9	19.3	15.3
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	51.5	36.6	49.4	44.3	47.2	48.6	51.4	59.1	62.1	57.2	65.2	52.4	54.4	62.8
Cambodia	2.3	2.5	8.1	11.6	8.5	9.1	8.5	9.9	15.6	16.1	14.9	15.9	14.1	14.1
Indonesia	32.3	30.6	31.8	30.0	25.1	23.7	24.9	27.5	28.7	28.1	31.0	31.7	34.4	36.4
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	34.4	39.7	46.1	41.8	42.0	42.5	43.4	44.3	44.5	43.3	43.8	38.1	40.3	39.5
Myanmar	11.7	13.4	12.3	11.5	10.2	11.0	12.3	13.1	13.7	14.9	15.6	18.9	22.7	...
Philippines	18.7	14.5	16.4	15.3	15.5	15.4	16.1	15.9	16.2	17.2	16.8	15.5	18.7	17.2
Singapore	45.1	50.0	46.0	42.3	41.2	44.0	47.4	49.4	50.6	53.0	49.9	49.3	50.5	49.1
Thailand	34.1	36.2	30.7	29.4	29.1	30.2	30.3	29.5	30.4	33.5	30.8	30.1	31.2	...
Viet Nam	2.9	18.2	27.1	28.8	28.7	27.4	28.5	30.3	30.6	29.2	26.5	27.2	27.0	28.3
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	8.6	-0.4	-0.7	2.6	-1.6	-6.2	4.9	4.4	5.8	3.4	8.3	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	16.1	40.2	38.8	36.0	27.9	35.7	31.0	35.9	36.1	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	-46.8	-39.7	-57.1	-61.1	34.7	67.0	72.2	64.1	70.0	56.0	61.9	...
Tonga	-12.5	-10.3	-9.9	-9.4	-13.8	-12.6	-13.8	-16.2	-14.0	-20.0	-21.9	-24.2	-16.3	-8.0
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.7	17.0	...	...	...	...	...	...	...	...	26.6	...	...	...
<b>Developed Member Economies</b>														
Australia	28.4	23.8	24.0	23.3	24.2	23.6	24.3	24.9	26.3	26.8	26.9	28.4	26.9	28.0
Japan	32.9	...	...	24.1	23.3	23.4	23.8	23.6	23.7	24.3	22.8	19.6	20.6	...
New Zealand	20.0	23.8	23.0	24.4	23.8	23.5	23.7	22.5	21.6	23.2	20.7	19.9	20.3	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

Table 2.13 **Growth Rates of Real GDP**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	8.2	2.3	9.9	9.2	16.1	2.3	17.2	3.2	...
Armenia	...	...	5.9	9.6	15.1	14.0	10.5	13.9	13.2	13.7	7.0	-14.2	2.2	4.7
Azerbaijan	...	-12.0	11.1	9.9	10.6	11.2	10.2	26.4	34.5	25.1	10.8	9.3	5.0	0.1
Georgia	...	...	1.8	4.8	5.5	11.1	5.9	9.6	9.4	12.3	2.3	-3.8	6.3	7.0
Kazakhstan	...	-8.2	9.8	13.5	9.8	9.3	9.6	9.7	10.7	8.9	3.3	1.2	7.3	7.5
Kyrgyz Republic	...	-5.4	5.4	5.3	0.0	7.0	7.0	-0.2	3.1	8.5	8.4	2.9	-0.5	5.7
Pakistan	4.6	5.1	3.9	2.0	3.1	4.7	7.5	9.0	5.8	6.8	3.7	1.7	3.1	3.0
Tajikistan	...	6.0	8.3	9.6	10.8	11.1	10.3	6.7	6.6	7.6	7.6	4.0	6.5	2.4
Turkmenistan	...	-7.2	5.5	4.3	0.3	3.3	5.0	13.0	11.0	11.1	14.7	6.1	9.2	...
Uzbekistan	...	0.9	4.0	4.5	4.2	4.4	7.7	7.1	7.4	7.7	9.0	8.1	8.5	8.3
<b>East Asia</b>														
China, People's Rep. of	3.8	10.9	8.4	8.3	9.1	10.0	10.1	11.3	12.7	14.2	9.6	9.2	10.4	9.2
Hong Kong, China	3.9	2.3	8.0	0.5	1.8	3.0	8.5	7.1	7.0	6.4	2.3	-2.7	7.0	5.0
Korea, Rep. of	9.3	8.9	8.8	4.0	7.2	2.8	4.6	4.0	5.2	5.1	2.3	0.3	6.3	3.6
Mongolia	-2.5	...	1.1	1.0	3.8	6.1	10.6	7.3	18.8	10.2	8.9	-1.3	6.4	17.3
Taipei, China	6.9	6.4	5.8	-1.7	5.3	3.7	6.2	4.7	5.4	6.0	0.7	-1.8	10.7	4.0
<b>South Asia</b>														
Bangladesh	5.9	4.9	6.0	5.3	4.4	5.3	6.3	6.0	6.6	6.4	6.2	5.9	5.9	6.7
Bhutan	2.4	7.1	6.9	8.8	10.9	7.2	4.0	7.0	8.6	17.9	4.7	6.7	11.8	...
India	5.3	7.3	4.4	5.8	3.8	8.5	7.5	9.5	9.6	9.3	6.7	8.4	8.4	6.5
Maldives	16.9	7.4	4.4	3.5	6.1	14.2	12.5	-8.7	19.6	10.6	12.2	-4.7	5.7	7.5
Nepal	4.7	3.4	6.0	5.4	0.1	3.9	4.7	3.5	3.4	3.4	6.1	4.5	4.8	3.9
Sri Lanka	6.2	5.5	6.0	-1.4	4.0	5.9	5.4	6.2	7.7	6.8	6.0	3.5	8.0	8.3
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	1.1	4.5	2.8	2.7	3.9	2.9	0.5	0.4	4.4	0.2	-1.9	-1.8	2.6	2.2
Cambodia	1.2	6.5	8.4	7.7	7.0	8.5	10.3	13.3	10.8	10.2	6.7	0.1	6.0	7.1
Indonesia	9.0	8.2	4.9	3.6	4.5	4.8	5.0	5.7	5.5	6.3	6.0	4.6	6.2	6.5
Lao PDR	6.7	7.1	6.3	4.6	6.9	6.2	7.0	6.8	8.6	7.8	7.8	7.5	8.1	...
Malaysia	9.0	9.8	8.9	0.5	5.4	5.8	6.8	5.3	5.6	6.3	4.8	-1.5	7.2	5.1
Myanmar	2.8	6.9	13.7	11.3	12.0	13.8	13.6	13.6	13.1	12.0	10.3	10.6	10.4	...
Philippines	3.0	4.7	4.4	2.9	3.6	5.0	6.7	4.8	5.2	6.6	4.2	1.1	7.6	3.9
Singapore	10.1	7.3	9.0	-1.2	4.2	4.6	9.2	7.4	8.8	8.9	1.7	-1.0	14.8	4.9
Thailand	11.2	8.1	4.5	3.4	6.2	7.2	6.3	4.2	4.9	5.4	1.6	-1.1	7.5	0.1
Viet Nam	5.1	9.5	6.8	6.9	7.1	7.3	7.8	8.4	8.2	8.5	6.3	5.3	6.8	5.9
<b>The Pacific</b>														
Cook Islands	7.9	-4.4	13.9	4.1	3.2	4.3	2.2	-1.1	5.0	-0.2	-3.5	-3.6	0.2	...
Fiji	3.6	...	-1.7	1.9	3.2	0.8	5.4	-1.3	1.9	-0.5	1.0	-1.3	-0.2	2.1
Kiribati	2.1	-1.0	7.2	-3.1	6.2	4.5	0.9	-2.5	-0.4	2.1	-2.4	-2.3	-0.4	...
Marshall Islands	9.8	-0.3	5.9	5.4	2.6	0.2	-0.1	2.6	1.9	3.0	-1.9	-1.3	5.2	5.0
Micronesia, Fed. States of	4.0	4.6	4.5	1.7	0.5	1.8	-3.2	2.1	0.2	-2.1	-2.4	0.7	3.1	1.4
Nauru	...	-2.4	4.8	-0.4	-0.9	2.2	...	-9.8	-20.3	-10.8	95.6	-18.2	0.0	4.0
Palau	...	10.9	...	6.0	1.7	1.5	6.7	4.7	-3.7	-0.5	-6.1	-4.6	0.3	5.8
Papua New Guinea	-0.4	-3.4	-2.5	0.0	2.0	4.4	0.6	3.9	2.3	7.2	6.6	6.1	7.6	8.9
Samoa	-7.5	6.6	7.0	8.1	3.2	5.6	4.6	5.2	0.5	5.8	-3.7	-1.4	1.8	1.4
Solomon Islands	2.9	10.0	-14.2	-8.0	-2.8	6.5	8.0	5.0	6.1	10.7	7.3	-1.2	6.9	10.7
Timor-Leste <sup>b</sup>	...	9.5	13.7	16.5	2.4	0.1	...	54.3	60.3	-0.8	12.1	-7.0	-1.5	...
Tonga	2.0	3.7	-0.9	3.3	3.4	2.2	1.0	2.4	-1.6	-4.1	1.2	2.9	2.7	4.7
Tuvalu	15.4	-5.0	...	1.7	8.0	-3.3	-1.5	-3.9	3.3	4.9	11.6	-2.3	-1.4	-0.6
Vanuatu	0.0	0.0	5.8	-3.3	-4.2	3.7	4.4	5.1	7.2	6.7	6.3	0.0	2.2	4.3
<b>Developed Member Economies</b>														
Australia	3.6	4.0	3.8	1.9	3.9	3.2	4.1	3.2	3.0	3.8	3.8	1.4	2.3	2.1
Japan	5.6	1.9	2.9	0.2	0.3	1.7	2.4	1.3	1.7	2.2	-1.0	-5.5	4.4	-0.7
New Zealand	0.0	4.5	2.5	3.8	4.5	4.2	3.6	3.3	2.2	2.5	-1.4	-1.2	1.7	1.7

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b GDP estimates prior to 2004 refer to non-oil GDP. Before 2002, estimates include the value added of United Nations activities.

Source: Country sources.

## National Accounts

Table 2.14 Growth Rates of Real GDP Per Capita (%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	6.2	0.3	7.8	7.0	13.8	0.3	14.9	1.3	...
Armenia	...	...	6.2	9.8	15.1	14.1	10.4	13.7	13.1	13.6	6.7	-14.4	1.8	4.3
Azerbaijan	...	-13.0	9.9	8.8	9.5	10.1	9.0	24.9	32.7	23.5	9.2	7.9	3.9	-1.2
Georgia	...	...	2.6	5.6	6.2	11.8	6.5	9.4	7.4	12.5	2.6	-3.8	5.0	6.2
Kazakhstan	...	-6.3	10.2	13.7	9.7	9.0	8.9	8.7	9.5	7.7	2.0	-0.2	5.7	4.7
Kyrgyz Republic	...	-6.0	4.0	4.4	-0.9	6.1	5.7	-1.4	2.1	7.3	7.6	1.7	-1.8	4.6
Pakistan	1.9	2.5	1.6	0.1	1.0	2.7	5.4	6.9	3.9	4.9	1.5	-0.4	0.9	1.0
Tajikistan	...	4.9	6.1	7.4	8.6	8.9	8.0	4.5	4.4	5.4	5.3	1.8	4.8	0.6
Turkmenistan	...	-9.2	4.1	2.9	-1.2	1.7	3.5	11.4	9.4	9.6	13.2	4.6	7.7	...
Uzbekistan	...	-1.1	2.7	3.4	3.2	3.5	6.8	6.1	6.3	6.5	7.7	6.8	7.2	7.1
<b>East Asia</b>														
China, People's Rep. of	2.3	9.7	7.6	7.5	8.4	9.3	9.5	10.6	12.1	13.6	9.0	8.7	9.9	8.7
Hong Kong, China	3.6	0.3	7.1	-0.2	1.4	3.2	7.7	6.6	6.3	5.5	1.7	-2.9	6.3	4.3
Korea, Rep. of	8.2	7.8	7.9	3.2	6.6	2.3	4.2	3.8	4.7	4.6	1.6	-0.2	5.8	2.9
Mongolia	-4.8	...	-0.6	-0.2	2.2	...	9.3	6.0	17.4	8.2	7.3	-3.1	4.5	15.3
Taipei, China	5.6	5.5	4.9	-2.2	4.7	3.3	5.8	4.3	4.9	5.6	0.4	-2.2	10.5	3.8
<b>South Asia</b>														
Bangladesh	3.7	3.2	4.5	3.9	3.0	3.9	4.9	4.6	5.2	5.0	4.8	4.5	4.5	5.3
Bhutan	1.1	5.7	5.6	7.4	9.5	5.9	2.6	5.6	6.6	15.8	2.8	4.8	9.7	...
India	3.1	5.1	2.6	3.9	2.3	6.8	5.8	7.9	8.0	7.8	5.2	6.9	6.9	5.1
Maldives	14.1	5.3	2.8	1.2	4.4	12.3	10.8	-10.0	17.5	8.4	10.5	-6.2	4.0	5.7
Nepal	2.6	0.8	3.4	2.9	-1.3	2.5	3.2	2.1	1.9	2.0	4.6	3.1	3.4	2.4
Sri Lanka	9.9	4.4	4.5	-2.8	2.5	4.6	4.3	5.3	6.4	6.0	5.0	2.4	7.0	7.1
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	-1.7	0.4	0.3	0.3	0.4	1.3	-2.3	-2.4	0.9	-1.6	-4.0	-3.8	0.6	0.2
Cambodia	-2.4	1.3	7.0	6.2	5.6	7.1	8.9	11.7	9.3	8.7	5.3	-1.5	4.4	5.5
Indonesia	6.9	6.5	3.9	2.3	3.1	3.4	3.7	4.3	4.1	5.0	4.7	3.3	4.6	4.7
Lao PDR	4.5	4.8	4.2	2.6	4.8	4.1	4.9	4.7	6.3	5.6	5.4	5.2	5.8	...
Malaysia	6.4	6.8	6.2	-1.7	3.2	3.7	4.7	3.3	3.6	4.3	2.8	-3.3	5.3	3.6
Myanmar	0.9	5.0	11.5	9.1	9.8	11.6	11.3	11.3	10.9	10.1	8.6	9.2	9.2	...
Philippines	0.7	2.3	2.0	0.8	1.6	2.9	4.7	2.8	3.3	4.7	2.3	-0.6	5.8	2.2
Singapore	7.0	4.1	7.1	-3.8	3.3	4.4	7.8	4.9	5.4	4.4	-3.6	-4.0	12.8	2.7
Thailand	...	6.9	3.7	2.5	5.2	6.2	5.4	3.3	4.2	4.7	1.0	-1.7	6.9	-0.3
Viet Nam	3.1	7.7	5.3	5.5	5.8	6.1	6.5	7.2	7.0	7.3	5.2	4.2	5.7	4.8
<b>The Pacific</b>														
Cook Islands	4.8	-3.9	4.3	2.9	1.6	4.3	-7.4	-6.7	-5.1	13.1	-7.5	-6.6	-4.0	...
Fiji	2.9	...	-2.3	1.5	2.6	0.1	4.8	-2.0	1.5	-0.7	0.4	-2.0	-0.8	...
Kiribati	-1.3	-2.4	5.9	-4.7	4.4	2.8	-0.8	-4.8	...	-0.1	-4.4	-4.4	...	...
Marshall Islands	8.3	...	4.9	6.7	4.2	-0.5	-1.1	1.0	1.2	2.3	-3.2	-2.4	4.1	3.5
Micronesia, Fed. States of	2.0	4.4	4.2	2.0	0.9	2.2	-2.9	2.5	0.6	-1.7	-2.0	1.1	3.6	1.4
Nauru	...	-2.5	3.8	-0.2	-0.5	4.2	...	-7.8	-18.4	-12.1	91.6	-19.8	-2.0	1.9
Palau	...	8.0	...	5.1	0.8	0.7	5.9	3.8	-4.3	-0.8	-7.0	-5.6	-0.2	4.8
Papua New Guinea	-2.5	-6.4	-5.4	-2.8	-0.8	1.5	-2.2	1.1	-0.5	4.2	3.7	3.2	4.6	5.9
Samoa	-7.9	...	...	7.1	...	...	...	4.9	0.0	5.3	-4.2	-1.9	1.5	0.9
Solomon Islands	-0.7	6.0	-16.5	-10.5	-5.4	3.6	5.1	2.2	3.7	8.2	4.8	-3.5	4.4	8.2
Timor-Leste <sup>b</sup>	...	7.6	4.3	15.4	-9.0	-1.9	...	50.7	56.6	-3.2	9.4	-9.2	-4.0	...
Tonga	1.7	...	-1.3	2.9	3.0	1.7	0.6	2.0	-2.0	-4.5	0.8	2.4	2.3	4.2
Tuvalu	12.9	-5.5	...	1.3	8.2	-4.5	-4.5	-6.7	1.9	-1.6	12.5	-2.8	-1.9	-1.1
Vanuatu	-2.5	-2.5	3.1	-5.9	-6.7	1.3	1.7	2.5	4.5	4.0	3.6	-1.4	-0.5	1.6
<b>Developed Member Economies</b>														
Australia	2.1	2.8	2.6	0.5	2.7	1.9	2.9	1.8	1.5	1.9	1.7	-0.7	0.7	0.6
Japan	5.3	1.7	2.7	-0.0	0.1	1.5	2.3	1.3	1.7	2.2	-1.0	-5.4	4.5	-1.1
New Zealand	-0.9	3.0	1.9	3.2	2.7	2.1	2.0	2.2	1.0	1.4	-2.3	-2.3	0.5	0.8

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b GDP estimates prior to 2004 refer to non-oil GDP. Before 2002, estimates include the value added of United Nations activities.

Source: ADB staff estimates using country sources.

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Table 2.15 Growth Rates of Agriculture Real Value Added (%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	3.4	-14.5	12.2	7.7	21.2	-11.7	23.3	-18.0	...
Armenia	...	...	-1.0	11.8	3.6	4.0	14.2	11.2	0.5	10.4	3.3	6.0	-16.0	13.7
Azerbaijan	...	-7.8	12.1	11.1	6.4	5.6	5.0	7.5	0.9	4.0	6.1	3.5	-3.1	5.8
Georgia	...	...	-12.0	8.2	-1.4	10.3	-7.9	12.0	-11.7	3.3	-4.4	-6.8	-4.8	5.5
Kazakhstan	...	-24.4	-3.2	17.1	3.2	2.2	-0.1	7.1	6.0	8.9	-6.2	13.2	-12.9	26.1
Kyrgyz Republic	...	-2.0	2.6	7.3	3.1	3.2	4.1	-4.2	1.7	1.6	0.9	6.7	-2.6	2.3
Pakistan	3.0	6.6	6.1	-2.2	0.1	4.1	2.4	6.5	6.3	4.1	1.0	4.0	0.6	2.4
Tajikistan	...	...	...	8.0	14.2	10.4	15.3	2.8	5.4	6.5	7.8	10.5	6.8	0.4
Turkmenistan	...	-54.0	-2.6	8.1	-11.7	-5.7	0.8	14.1	3.0	21.8	-26.3	5.8	29.8	...
Uzbekistan	...	2.0	3.2	4.1	6.0	6.8	10.1	5.6	6.2	6.5	4.7	5.8	6.6	6.6
<b>East Asia</b>														
China, People's Rep. of	7.3	5.0	2.4	2.8	2.9	2.5	6.3	5.2	5.0	3.7	5.4	4.2	4.3	4.5
Hong Kong, China	...	...	...	4.1	-1.1	-6.3	2.8	-1.1	-4.9	-6.3	-18.7	-3.2	5.1	-8.0
Korea, Rep. of	-5.9	6.7	1.1	1.6	-2.2	-5.4	9.1	1.3	1.5	4.0	5.6	3.2	-4.4	-2.0
Mongolia	-1.0	...	-15.9	-18.3	-12.4	4.9	15.8	10.7	5.4	14.4	4.7	3.6	-16.6	0.3
Taipei, China	0.6	2.9	1.7	-6.0	9.7	-1.6	-5.4	-4.2	13.8	-2.4	0.1	-3.0	1.2	1.9
<b>South Asia</b>														
Bangladesh	9.4	-0.3	7.4	3.1	-	3.1	4.1	2.2	4.9	4.6	3.2	4.6	4.7	5.1
Bhutan	5.1	1.5	5.4	10.6	2.7	2.2	-2.6	0.7	2.8	0.8	0.7	2.7	0.3	...
India	4.0	-0.7	-0.2	6.3	-7.2	10.0	0.0	5.1	4.2	5.8	0.1	1.0	7.0	2.8
Maldives	9.7	1.0	-0.2	5.0	13.3	2.7	2.0	5.9	4.4	-11.9	-3.4	-7.3	-6.9	-1.1
Nepal	5.8	-0.9	4.9	5.5	3.1	3.3	4.8	3.5	1.8	1.0	5.8	3.0	2.0	4.5
Sri Lanka	8.8	3.4	2.3	-3.8	2.0	1.7	0.0	1.8	6.3	3.4	7.5	3.2	7.0	1.5
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	2.6	2.9	6.6	5.8	5.2	11.3	12.0	1.3	-9.9	-4.5	3.7	5.7	-5.9	4.6
Cambodia	1.2	3.5	-1.2	4.5	-3.5	10.5	-0.9	15.7	5.5	5.0	5.7	5.4	4.0	3.1
Indonesia	3.1	4.4	1.9	3.3	3.4	3.8	2.8	2.7	3.4	3.5	4.8	4.0	3.0	3.0
Lao PDR	8.7	3.1	4.2	-0.6	1.9	2.5	3.4	0.7	2.5	8.6	3.7	2.8	3.0	...
Malaysia	-0.6	-2.5	6.1	-0.2	2.9	6.0	4.7	2.6	5.8	1.4	3.8	0.1	2.4	5.9
Myanmar	1.8	4.8	11.0	8.7	6.0	11.7	11.0	12.1	9.7	7.9	5.6	5.6	4.7	...
Philippines	0.5	0.9	3.4	3.4	3.3	4.7	4.3	2.2	3.6	4.7	3.2	-0.7	-0.2	2.7
Singapore	-8.3	-3.7	-4.9	-10.8	-17.5	-7.9	-3.3	2.1	4.0	0.6	-4.3	-1.8	-3.1	3.0
Thailand <sup>b</sup>	-4.7	1.3	6.8	3.1	0.1	11.9	-1.1	-0.1	3.9	1.9	2.9	-0.9	-2.5	4.1
Viet Nam	1.0	4.8	4.6	3.0	4.2	3.6	4.4	4.0	3.7	3.8	4.7	1.8	2.8	4.0
<b>The Pacific</b>														
Cook Islands	13.2	-2.5	0.1	-18.0	-2.6	20.1	-19.7	-3.5	-6.8	5.2	-9.9	-5.6	14.4	...
Fiji	-4.6	...	-1.3	-5.6	4.7	-4.4	5.2	0.9	5.0	-5.0	5.0	-13.0	-5.0	...
Kiribati	-20.7	9.1	-6.1	-1.7	1.5	9.4	3.1	-9.4	-1.2	7.8	2.1	-3.1	-7.1	...
Marshall Islands	...	...	23.2	4.9	-1.0	10.8	-6.2	-9.4	2.6	7.0	-2.0	13.3	24.8	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	-21.3	...	-19.5	1.8	8.6	16.9	64.3	24.6	-14.9	-6.8	4.2	-0.8	0.2
Papua New Guinea	2.2	-0.7	2.1	-4.7	-0.6	7.7	-0.2	5.6	1.0	4.2	4.3	0.7	2.9	4.5
Samoa	...	12.7	0.1	-3.7	-6.0	-6.4	-5.0	4.8	-3.5	3.6	-10.3	-0.2	-8.2	0.8
Solomon Islands	-1.0	11.8	-17.1	-3.5	4.8	19.1	11.1	5.2	5.7	12.0	6.7	-7.3	10.7	12.0
Timor-Leste	...	-4.3	-14.3	8.7	6.0	-0.4	...	4.6	3.6	-2.9	7.6	8.5	-2.2	...
Tonga	3.9	0.4	-2.5	-0.2	0.0	1.2	2.9	0.9	-8.2	0.6	-5.8	-2.1	-0.7	3.7
Tuvalu	13.1	0.6	...	-1.7	-1.9	0.2	4.5	0.9	7.2	2.6	-0.6	0.7	2.2	0.5
Vanuatu	15.5	2.9	4.7	-0.3	-0.7	3.7	5.0	2.1	1.0	2.0	3.8	1.3	...	...
<b>Developed Member Economies</b>														
Australia	8.2	-14.7	6.3	3.8	2.7	-21.3	25.5	4.0	2.8	-15.3	6.9	17.6	-1.2	9.1
Japan	-0.3	-4.6	2.1	-2.4	6.2	-9.1	-9.9	1.0	-1.7	6.3	7.2	-9.4	-7.4	...
New Zealand	16.7	7.3	2.4	1.0	-1.1	10.8	-2.5	5.6	2.2	-13.6	12.1	3.6	-3.9	5.1

... = Data not available at cutoff date, - = Magnitude equals zero, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b Growth rates for 2011 are preliminary and are based on the old national accounts series.

Source: Country sources.

## National Accounts

Table 2.16 Growth Rates of Industry Real Value Added (%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	10.3	17.5	13.0	13.7	7.6	5.7	6.1	6.3	...
Armenia	...	...	12.8	-4.8	12.0	14.8	-0.3	14.8	16.6	11.7	7.8	-29.6	5.8	-0.2
Azerbaijan	...	-13.3	5.7	8.3	15.2	14.1	11.9	43.4	49.8	32.9	9.7	10.3	3.4	-4.3
Georgia	...	...	3.9	-0.8	13.9	15.8	12.1	12.0	13.5	14.5	-3.9	-3.5	9.1	9.7
Kazakhstan	...	-15.9	15.3	15.4	11.8	9.2	11.2	10.7	13.4	8.0	2.5	2.0	9.5	3.3
Kyrgyz Republic	...	-12.3	8.8	4.5	-9.0	12.7	3.0	-9.8	-6.9	10.3	14.0	-0.3	2.5	8.8
Pakistan	6.5	4.1	1.3	4.1	2.7	4.2	16.3	12.1	4.1	8.8	1.4	-0.1	6.1	0.7
Tajikistan	...	...	...	15.6	8.9	12.3	-1.5	7.7	4.7	-4.5	0.3	-10.3	5.6	-15.1
Turkmenistan	...	22.3	1.0	1.8	-0.9	-0.4	2.3	10.6	7.1	17.0	60.9	5.8	-1.0	...
Uzbekistan	...	-5.2	1.8	2.9	3.4	3.2	5.0	8.9	7.5	6.6	6.8	4.1	4.2	3.4
<b>East Asia</b>														
China, People's Rep. of	3.2	13.9	9.4	8.4	9.8	12.7	11.1	12.1	13.4	15.1	9.9	9.9	12.3	10.6
Hong Kong, China	...	...	...	-3.4	-2.9	-4.6	-3.7	-2.8	-3.4	-0.5	2.1	-5.2	7.6	3.8
Korea, Rep. of	14.2	8.7	11.3	3.3	7.4	6.0	7.9	4.8	6.6	6.0	2.0	-0.6	10.7	5.0
Mongolia	-4.9	...	0.3	15.5	4.3	5.9	18.3	5.2	23.7	7.0	-0.8	-0.4	4.3	10.1
Taipei, China	-1.0	4.4	5.4	-7.5	10.2	7.7	9.5	6.9	7.8	9.0	0.2	-4.2	23.0	4.4
<b>South Asia</b>														
Bangladesh	7.1	9.9	6.2	7.5	6.5	7.3	7.6	8.3	9.7	8.4	6.8	5.9	7.0	8.2
Bhutan	-1.7	16.0	7.3	10.4	17.7	7.7	0.9	4.0	13.3	40.7	6.1	3.6	12.6	...
India	7.1	11.6	6.4	2.7	7.1	7.4	10.3	9.7	12.2	9.7	4.4	8.4	7.2	3.4
Maldives	16.4	4.7	1.2	8.0	5.7	15.1	31.1	10.4	10.3	22.5	9.5	-26.2	5.2	5.9
Nepal	4.8	4.3	8.6	4.1	0.9	3.1	1.4	3.0	4.5	3.9	1.7	-0.6	4.0	2.9
Sri Lanka	8.0	8.3	9.0	-2.0	3.5	4.7	5.4	8.0	8.1	7.6	5.9	4.2	8.4	10.3
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	-0.3	5.4	3.0	0.8	4.5	3.5	-0.5	-1.8	2.9	-5.6	-5.4	-5.0	1.7	0.9
Cambodia	-2.1	18.9	31.2	11.4	16.8	12.0	16.6	12.7	18.3	8.4	4.0	-9.5	13.6	14.5
Indonesia	11.5	10.4	5.9	2.7	4.3	3.8	3.9	4.7	4.5	4.7	3.7	3.6	4.9	5.3
Lao PDR	16.2	13.3	9.3	-1.5	10.8	19.4	3.7	10.6	14.1	4.4	10.4	18.5	17.5	...
Malaysia	11.0	14.9	13.6	-2.6	4.2	7.5	7.3	3.6	4.5	3.0	0.8	-5.6	7.0	2.7
Myanmar	5.5	12.7	21.3	21.8	35.0	20.8	21.4	19.9	20.0	19.6	18.0	17.7	18.6	...
Philippines	2.6	6.7	6.5	1.0	2.9	4.3	5.2	4.2	4.6	5.8	4.8	-1.9	11.6	2.3
Singapore	9.3	9.6	12.4	-9.0	4.5	1.4	10.8	8.2	10.7	6.8	-1.5	-1.4	24.8	6.8
Thailand <sup>b</sup>	16.1	10.5	2.7	2.3	8.4	9.0	7.2	5.2	5.1	6.6	2.0	-1.7	10.8	-3.9
Viet Nam	2.3	13.6	10.1	10.4	9.5	10.5	10.2	10.7	10.4	10.2	6.0	5.5	7.7	5.5
<b>The Pacific</b>														
Cook Islands	20.2	-15.9	18.2	7.5	2.9	12.4	5.8	-6.3	3.0	4.6	2.5	-5.0	-2.7	...
Fiji	3.0	...	-5.5	7.2	2.3	0.8	10.0	-6.7	0.7	-5.2	-1.4	-0.4	8.1	...
Kiribati	1.3	0.0	8.4	-11.3	-3.7	1.2	-10.3	-5.6	6.8	13.0	-13.9	-9.3	-1.4	...
Marshall Islands	...	...	-14.4	16.1	-5.2	-1.8	-3.1	4.5	22.5	-2.7	3.3	-7.3	-6.0	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	30.8	28.0	23.4	13.3	-5.1	6.5	8.1	-25.2	-24.3	-29.2	-13.0	-15.0	-4.8
Papua New Guinea	-2.5	-10.0	-0.8	-0.1	2.3	8.3	0.8	4.1	1.5	7.3	7.0	8.1	10.8	11.1
Samoa	...	1.8	14.4	14.7	6.2	10.9	5.3	4.7	-2.9	13.3	-10.4	-8.1	6.7	-1.9
Solomon Islands	22.7	31.6	-29.7	-36.2	-4.5	-0.4	4.0	6.7	7.1	11.4	3.5	2.7	5.2	9.0
Timor-Leste	...	16.6	22.9	2.7	-10.6	-15.1	...	74.5	75.5	-2.5	11.8	-10.2	-3.7	...
Tonga	0.3	9.7	-0.4	4.9	4.5	4.2	1.2	-2.8	-2.5	-2.8	0.8	9.5	11.3	11.1
Tuvalu	-32.1	-13.0	...	5.5	29.8	11.5	-14.1	-18.7	27.3	30.5	81.9	-14.4	-6.9	-28.7
Vanuatu	-1.1	-2.2	37.0	-21.0	-6.5	-5.4	-1.4	4.5	10.5	7.7	15.5	9.3	...	...
<b>Developed Member Economies</b>														
Australia	2.7	4.2	3.3	-0.2	3.5	5.5	1.3	2.1	2.7	4.6	4.0	-0.2	2.6	1.8
Japan	7.9	0.7	2.7	-4.2	-1.9	2.3	3.7	0.3	3.8	3.5	-0.2	-15.0	13.7	...
New Zealand	-4.4	2.0	0.7	1.0	8.8	3.0	3.0	1.8	-0.4	4.2	-6.1	-5.4	0.9	-0.7

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b Growth rates for 2011 are preliminary and are based on the old national accounts series.

Source: Country sources.

## National Accounts

Table 2.17 Growth Rates of Services Real Value Added (%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	10.4	11.4	5.4	7.2	19.3	13.8	17.2	18.1	...
Armenia	...	...	3.0	21.0	25.8	22.3	23.6	14.7	15.5	13.8	5.1	-3.7	4.6	6.9
Azerbaijan	...	-13.1	9.6	7.1	5.9	8.9	9.2	9.4	17.1	11.6	12.8	7.8	3.3	6.5
Georgia	...	...	7.4	4.8	4.6	10.1	7.5	10.4	14.6	12.1	5.4	-4.8	10.1	6.7
Kazakhstan	...	0.3	8.4	12.3	9.8	11.0	10.8	10.4	10.9	13.2	4.2	-1.5	6.0	8.7
Kyrgyz Republic	...	-4.6	5.8	3.8	4.2	7.4	11.7	8.4	9.4	12.4	10.7	2.6	-1.3	5.3
Pakistan	4.5	4.8	4.8	3.1	4.8	5.2	5.8	8.5	6.5	7.0	6.0	1.7	2.6	4.5
Tajikistan	...	...	...	3.9	11.2	9.9	19.5	8.5	9.7	16.4	11.9	9.4	7.1	11.4
Turkmenistan	...	-15.7	18.0	-5.7	6.6	10.4	10.7	27.1	17.9	3.0	-9.1	6.5	18.4	...
Uzbekistan	...	-0.9	5.4	5.1	3.3	3.2	7.4	7.1	8.6	13.4	15.3	9.3	11.6	12.7
<b>East Asia</b>														
China, People's Rep. of	2.3	9.8	9.7	10.3	10.4	9.5	10.1	12.2	14.1	16.0	10.4	9.6	9.8	8.9
Hong Kong, China	...	...	...	1.6	2.1	3.4	8.8	6.9	6.6	6.6	2.7	-1.8	5.4	6.2
Korea, Rep. of	8.4	7.9	6.0	4.3	7.4	1.8	2.3	3.5	4.4	5.1	2.8	1.2	3.9	2.6
Mongolia	-2.2	...	15.3	6.1	11.0	6.7	1.0	9.0	21.4	11.9	16.6	0.8	9.8	17.1
Taipei, China	10.5	8.2	5.9	0.3	2.7	2.5	4.8	4.0	4.4	4.4	1.1	-0.5	5.4	3.0
<b>South Asia</b>														
Bangladesh	-1.9	4.9	5.5	5.5	5.4	5.4	5.7	6.4	6.4	6.9	6.5	6.3	6.5	6.2
Bhutan	2.8	5.0	8.7	5.0	7.1	9.3	12.1	14.3	8.6	6.1	4.7	13.3	12.1	...
India	5.2	10.1	5.7	7.2	7.5	8.5	9.1	10.9	10.1	10.3	10.0	10.5	9.3	8.9
Maldives	18.7	14.8	6.0	2.4	5.9	14.8	9.9	-13.8	23.0	9.2	13.5	0.5	6.3	8.0
Nepal	4.2	5.9	5.9	4.5	-1.8	3.7	6.8	3.3	5.6	4.5	7.3	6.0	5.8	3.6
Sri Lanka	4.3	5.2	6.1	-0.3	4.8	7.6	6.7	6.4	7.7	7.1	5.6	3.3	8.0	8.6
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	3.6	2.9	2.5	6.1	2.8	1.6	2.0	4.1	7.4	9.2	2.6	2.1	3.8	3.7
Cambodia	2.7	8.3	8.9	8.7	10.0	5.9	13.2	13.1	10.1	10.1	9.0	2.3	3.3	5.0
Indonesia	9.8	7.6	5.2	4.9	5.2	6.4	7.1	7.9	7.3	9.0	8.7	5.8	8.4	8.5
Lao PDR	-0.4	10.2	6.9	14.7	11.3	3.8	12.0	9.9	9.7	9.1	9.7	6.0	7.0	...
Malaysia	11.3	9.6	6.0	4.1	5.8	4.2	6.4	7.3	7.3	10.4	8.9	2.9	7.2	7.2
Myanmar	3.2	7.3	13.4	12.9	14.8	14.6	14.4	13.1	14.2	13.2	11.6	12.2	11.6	...
Philippines	4.9	5.0	3.3	4.0	4.2	5.5	8.3	5.8	6.0	7.6	4.0	3.4	7.2	5.1
Singapore	9.8	6.3	7.6	3.3	4.5	6.1	8.4	7.3	7.9	9.1	4.4	-1.0	10.7	4.3
Thailand <sup>b</sup>	12.7	7.6	5.3	4.2	5.7	5.1	7.0	4.2	5.0	5.3	1.1	-0.8	7.1	3.8
Viet Nam	10.2	9.8	5.3	6.1	6.5	6.5	7.3	8.5	8.3	8.9	7.4	6.6	7.5	7.0
<b>The Pacific</b>														
Cook Islands	5.2	-3.4	15.4	7.0	4.1	2.3	4.6	-0.3	5.7	-1.1	-2.9	-1.6	-0.4	...
Fiji	8.4	...	0.8	2.9	2.4	0.8	3.6	-17.0	1.5	1.8	0.9	1.0	-1.4	...
Kiribati	7.2	-7.8	-0.4	1.5	6.7	6.5	0.6	4.0	0.6	-0.9	2.8	-2.1	0.3	...
Marshall Islands	...	...	6.2	5.2	4.2	-0.8	1.6	2.7	-0.8	4.7	-2.4	-0.6	3.2	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	12.7	...	4.4	-1.2	2.3	5.3	1.6	-1.7	5.0	-3.4	-4.6	1.6	6.6
Papua New Guinea	-6.3	-1.0	-12.7	7.5	5.1	-1.5	-0.7	3.6	4.8	9.4	9.1	10.7	9.7	11.7
Samoa	...	6.4	6.2	8.8	4.4	6.0	6.5	5.6	3.1	2.6	1.1	1.6	1.4	2.9
Solomon Islands	4.1	3.2	-5.7	-4.6	-9.5	-5.9	4.6	4.3	6.5	8.7	9.0	7.0	3.2	7.2
Timor-Leste	...	13.3	30.1	24.6	6.1	6.5	...	4.8	-1.1	19.2	18.3	13.2	12.9	...
Tonga	1.8	3.1	-0.1	4.1	3.8	1.5	0.6	3.9	0.8	-5.5	3.3	1.4	0.6	2.1
Tuvalu	36.1	-4.8	19.1	-0.5	11.9	-3.9	0.4	-4.8	0.1	1.0	3.1	3.5	2.5	6.4
Vanuatu	-4.8	-0.4	2.3	-0.7	-3.9	6.0	4.4	6.5	8.7	5.1	4.3	1.3	...	...
<b>Developed Member Economies</b>														
Australia	4.4	6.0	4.2	3.6	3.9	3.2	4.1	3.8	3.4	4.3	3.8	1.7	2.5	2.3
Japan	4.0	3.0	1.9	2.1	1.1	1.2	1.6	2.2	1.2	1.6	-1.5	-3.1	1.1	...
New Zealand	0.1	5.4	3.5	5.5	3.5	3.5	4.5	3.9	3.3	3.5	0.0	-0.2	1.8	1.9

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b Growth rates for 2011 are preliminary and are based on the old national accounts series.

Source: Country sources.

## National Accounts

Table 2.18 **Growth Rates of Real Private Consumption Expenditure**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	8.3	7.6	8.6	7.2	9.2	8.8	8.3	13.2	5.4	...	3.9	2.7
Azerbaijan	...	-2.9	10.0	9.4	8.0	9.7	11.2	13.2	14.5	17.0	17.4	8.5	10.8	7.9
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-20.6	1.7	8.1	2.7	11.8	13.9	10.7	12.6	10.8	5.4	2.1	9.9	11.0
Kyrgyz Republic	...	-16.7	-5.0	2.2	4.7	24.0	7.5	8.3	19.2	2.7	12.6	-14.4	2.7	5.6
Pakistan	4.5	7.1	0.4	0.5	1.4	0.4	10.1	12.9	1.0	4.7	-2.7	12.2	-1.7	3.7
Tajikistan	...	...	...	0.8	13.5	16.1	13.1	20.6	11.7	16.9	8.2	7.8	10.5	...
Turkmenistan	...	11.0	-49.2	49.7	-12.4	28.4	14.8	-15.2	-23.2	24.2	63.4	1.0	1.5	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	6.3	1.7	5.1	1.8	-0.9	-1.3	7.0	3.0	5.9	8.5	2.4	0.7	6.7	8.6
Korea, Rep. of	9.7	10.3	9.2	5.7	8.9	-0.4	0.3	4.6	4.7	5.1	1.3	-0.0	4.4	2.3
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	8.4	5.9	4.7	1.0	3.3	2.9	5.2	2.9	1.5	2.1	-0.9	0.8	3.7	3.0
<b>South Asia</b>														
Bangladesh	7.6	3.5	4.1	4.7	4.9	3.5	3.2	3.9	4.3	5.9	5.5	5.9	5.1	6.0
Bhutan	...	1.9	-3.9	6.0	7.3	10.7	2.3	1.3	1.3	14.7	5.5	2.0	23.1	...
India	4.5	6.1	3.4	6.0	2.9	5.9	5.2	8.6	8.5	9.4	7.2	7.2	8.1	5.5
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	3.5	3.2	1.0	4.7	5.4	3.2	1.3	5.7	6.2	7.0
Sri Lanka	6.4	4.0	4.0	1.5	9.1	8.3	3.3	1.7	6.5	3.9	7.5	0.9	9.2	14.7
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	4.8	-4.8	-7.0	4.2	0.7	15.8	12.3	-0.6	3.7	2.0	1.8	5.0	1.8	3.7
Cambodia	2.5	8.6	4.9	2.4	8.4	8.1	12.5	12.3	6.8	6.2	12.7	-1.0	9.7	10.4
Indonesia	17.2	12.6	1.6	3.5	3.8	3.9	5.0	4.0	3.2	5.0	5.3	4.9	4.7	4.7
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	11.9	11.7	13.0	3.0	3.9	8.1	9.8	9.1	6.8	10.5	8.7	0.7	6.5	6.9
Myanmar <sup>b</sup>	0.9	6.4	4.3	12.5	12.0	12.5	11.7	14.6	10.3	12.4	7.0	12.7	2.7	...
Philippines	5.4	3.8	5.2	4.1	5.1	5.5	6.0	4.4	4.2	4.6	3.7	2.3	3.4	6.3
Singapore	7.6	2.7	13.9	5.8	4.9	1.6	6.1	3.6	5.0	6.8	3.3	0.1	6.5	4.1
Thailand	12.9	8.3	7.1	5.9	6.3	7.3	7.5	4.2	2.8	1.2	2.9	-1.4	5.2	...
Viet Nam	...	7.2	3.1	4.5	7.6	8.0	7.1	7.3	8.3	10.8	9.3	3.1	10.0	4.4
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	8.3	...	4.7	5.0	1.6	4.3	0.6	2.5	2.0	0.6	1.1	0.3	0.6
Papua New Guinea	-13.4	-5.1	-28.5	-13.4	16.8	-8.0	7.7	9.8	6.3	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	0.5	-0.6	9.6	7.1	8.6	0.7	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	4.4	4.8	4.2	3.5	2.9	4.0	5.0	4.4	2.9	4.4	4.7	0.1	2.5	3.4
Japan	5.2	1.7	0.4	1.6	1.2	0.5	1.2	1.5	1.1	0.9	-0.9	-0.7	2.6	0.0
New Zealand	0.2	4.1	1.4	2.8	4.6	6.3	4.4	4.4	2.6	3.4	-1.7	0.4	1.6	2.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b Includes government consumption expenditure.

Sources: Country sources and UN Statistics Division (UN 2012).

## National Accounts

Table 2.19 **Growth Rates of Real Government Consumption Expenditure**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	2.9	3.1	5.1	11.1	8.8	19.1	14.0	5.2	-1.9	-1.2	3.9	7.7
Azerbaijan	...	-2.4	2.3	5.3	14.5	22.1	4.4	3.4	4.7	3.9	4.9	4.6	3.4	2.7
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-5.4	15.0	19.2	-7.5	8.9	10.6	10.8	7.3	14.0	2.6	1.0	2.7	11.3
Kyrgyz Republic	...	-13.4	5.9	-1.3	-0.2	1.2	4.6	-2.7	1.5	1.8	1.4	1.5	-1.1	3.3
Pakistan	-3.2	5.5	7.5	-5.6	15.0	7.2	1.4	1.7	48.3	-9.6	38.9	-31.5	44.7	5.2
Tajikistan	...	...	...	10.8	0.1	2.4	2.2	0.4	2.5	2.1	7.7	6.9	0.9	...
Turkmenistan	...	11.5	25.7	-16.1	-2.7	12.1	10.7	17.9	-15.7	-0.1	5.0	27.1	0.0	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	5.5	3.0	2.0	6.0	2.4	1.8	0.7	-3.2	0.3	3.0	1.8	2.4	2.8	1.8
Korea, Rep. of	10.5	3.8	1.8	5.0	4.9	4.4	3.8	4.3	6.6	5.4	4.3	5.6	2.9	2.1
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	13.1	4.2	1.2	1.9	1.5	-1.2	0.6	0.2	-0.7	2.1	0.8	4.0	0.6	1.9
<b>South Asia</b>														
Bangladesh	0.4	2.3	0.9	4.5	19.1	13.2	10.7	7.7	6.0	6.4	3.6	5.9	8.9	8.3
Bhutan	...	27.5	0.0	8.1	8.7	7.6	7.4	13.0	3.9	4.0	10.3	11.1	7.5	...
India	3.5	7.8	0.9	2.3	-0.4	2.6	3.6	8.9	3.8	9.6	10.4	14.3	7.8	5.1
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	7.8	10.5	8.8	1.2	0.8	7.2	3.3	9.7	1.3	0.0
Sri Lanka	4.4	8.9	5.3	-1.7	-1.8	4.8	9.3	12.0	9.6	7.4	9.8	16.0	1.6	5.5
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	2.3	2.3	7.7	9.3	-2.0	-2.6	4.1	-1.0	12.8	15.8	-0.8	5.0	3.7	-3.7
Cambodia	-4.6	-23.2	12.4	8.8	53.6	3.8	-5.0	3.9	-33.2	82.1	5.0	45.9	-6.2	7.8
Indonesia	4.8	1.3	-0.9	7.6	13.0	10.0	4.0	6.6	9.6	3.9	10.4	15.7	0.3	3.2
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	5.9	6.1	1.6	15.7	11.9	8.6	7.6	6.5	5.0	6.6	9.9	3.9	0.5	16.8
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	6.8	5.6	-1.0	-1.6	-4.0	3.6	2.0	2.1	10.6	6.9	0.3	10.9	4.0	1.0
Singapore	11.5	11.8	17.5	5.5	5.6	0.5	2.2	5.2	5.0	2.6	6.4	3.6	11.0	0.9
Thailand	6.9	6.9	2.2	2.6	3.4	5.2	3.9	8.0	2.3	8.5	5.0	9.0	7.4	...
Viet Nam	...	8.4	5.0	6.6	5.4	7.2	7.8	8.2	8.5	8.9	7.5	7.6	12.3	7.2
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	16.3	...	-1.7	-3.4	-9.1	-1.6	-0.6	9.2	2.0	-2.1	-2.4	-0.4	-0.5
Papua New Guinea	-2.8	-5.4	3.7	7.1	11.2	-14.0	19.5	1.1	10.7	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	-35.9	68.2	42.6	24.5	9.1	5.9	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	2.6	3.4	3.3	1.7	3.1	3.0	4.2	3.2	2.5	3.7	3.2	2.8	1.8	2.5
Japan	3.3	4.3	4.6	4.2	2.6	1.9	1.5	0.8	0.0	1.1	-0.1	2.3	2.1	2.1
New Zealand	1.0	5.0	-2.0	4.2	1.4	4.9	4.6	4.7	4.1	5.2	4.6	0.2	0.3	0.3

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Country sources and UN Statistics Division (UN 2012).



## National Accounts

Table 2.20 **Growth Rates of Real Gross Domestic Capital Formation**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	5.2	16.3	22.5	30.7	17.5	26.9	32.2	19.7	12.7	-30.9	0.5	-4.7
Azerbaijan	...	55.2	2.6	20.6	84.0	61.5	21.4	5.8	14.5	6.0	20.7	-14.0	2.0	1.0
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-42.4	10.7	40.5	11.0	6.4	15.1	35.0	31.7	23.4	-12.8	2.3	2.0	5.6
Kyrgyz Republic	...	96.3	22.1	-5.6	-6.4	-26.1	23.6	13.7	53.3	14.6	13.9	-4.9	-5.2	0.3
Pakistan	5.2	3.8	4.9	4.3	-0.3	6.4	-5.2	12.9	18.4	12.9	6.8	-13.3	-5.7	-4.7
Tajikistan	...	...	...	39.2	5.8	23.0	-3.2	2.6	9.4	11.3	10.2	-23.2	7.5	...
Turkmenistan	...	-22.4	-7.6	-4.7	-12.9	-4.8	-4.8	12.4	-5.6	3.5	-14.7	-10.3	37.4	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	...	15.1	19.4	-4.6	-0.4	2.1	1.7	-0.8	8.5	8.3	-0.7	0.4	11.5	1.1
Korea, Rep. of	15.7	8.5	15.6	-0.3	7.5	4.5	2.7	2.4	4.4	3.5	0.0	-11.9	12.0	1.5
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	6.7	5.8	8.3	-23.7	2.1	3.1	17.8	0.0	0.5	-0.7	-7.9	-21.2	39.5	-7.6
<b>South Asia</b>														
Bangladesh	6.3	9.1	7.3	5.8	8.2	7.9	9.2	10.7	8.7	8.1	1.8	6.2	7.9	9.6
Bhutan	...	-5.1	30.2	30.1	13.8	-0.9	16.8	-13.3	-24.7	-5.9	10.1	18.5	25.2	...
India	16.8	7.6	-3.5	-2.9	16.8	17.6	21.8	16.3	15.3	17.2	-1.6	11.6	11.1	5.3
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	-14.0	6.5	17.4	9.5	4.4	5.0	29.6	8.6	34.4	-8.7
Sri Lanka	5.5	-0.3	8.7	-13.2	5.3	13.1	14.1	9.4	13.3	8.2	4.4	2.0	13.5	9.0
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	6.7	45.7	-20.8	2.8	0.5	1.4	26.5	13.2	-0.3	-3.5	2.1
Cambodia	-23.5	39.4	8.6	21.3	3.8	21.7	-7.9	29.9	35.1	5.1	16.0	17.5	-18.6	9.8
Indonesia	10.9	13.1	12.9	8.6	-4.5	10.8	6.9	12.4	1.3	1.9	12.4	2.4	11.1	10.6
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	21.4	20.3	29.2	-9.3	7.9	-1.5	6.9	-2.5	11.3	8.4	-2.9	-13.8	38.3	2.4
Myanmar	29.2	28.5	11.3	2.8	10.1	24.8	25.9	29.8	21.4	28.2	16.9	34.7	33.9	...
Philippines	15.8	3.5	1.1	24.0	15.7	-0.4	-2.2	3.0	-15.1	-0.5	23.4	-8.7	31.6	8.1
Singapore	17.2	14.3	25.7	-20.8	-6.5	-30.2	51.2	-0.4	17.5	16.4	27.4	-20.1	5.8	9.7
Thailand	31.2	13.6	8.0	1.5	7.2	12.3	15.6	21.7	-6.0	1.3	9.2	-24.2	31.7	...
Viet Nam	...	17.1	10.1	10.8	12.7	11.9	10.5	11.2	11.8	26.8	6.3	4.3	10.4	-9.2
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	162.4	...	-22.0	-0.6	-12.5	12.1	6.9	-7.4	-11.2	10.7	-58.7	27.6	36.3
Papua New Guinea	0.6	12.8	36.8	7.0	17.5	-11.4	0.6	-9.8	-1.9	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	-11.9	10.5	2.3	67.8	123.4	13.1	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	2.7	13.5	5.5	-8.2	8.9	12.3	11.5	7.2	6.6	6.3	10.3	-1.1	1.9	6.7
Japan	7.3	2.9	3.7	-1.6	-6.8	1.7	2.5	-0.3	1.0	1.7	-3.0	-17.5	3.7	-1.8
New Zealand	-8.5	10.2	-1.5	6.8	7.2	13.2	9.3	4.6	-6.2	11.2	-9.5	-18.0	11.7	2.6

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

Table 2.21 **Growth Rates of Real Exports of Goods and Services**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	19.0	27.0	35.8	29.1	-1.7	15.9	-7.4	-3.5	-13.1	-10.4	26.5	14.8
Azerbaijan	...	-4.2	15.4	34.1	-6.3	19.6	39.6	52.8	48.3	36.1	7.4	14.3	9.1	2.0
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	5.0	27.9	-1.8	15.1	7.5	11.2	1.1	6.5	9.0	0.8	-11.6	1.9	3.5
Kyrgyz Republic	...	-17.4	10.5	-3.2	8.1	5.3	12.8	-11.0	8.9	25.8	9.1	-1.1	-11.7	16.5
Pakistan	1.1	-3.1	16.1	12.2	10.0	28.4	-1.5	9.6	9.9	2.3	-5.4	-3.3	15.7	2.4
Tajikistan	...	...	...	-20.8	7.6	29.5	22.6	2.9	31.2	27.9	-14.0	-2.0	23.0	...
Turkmenistan	...	-8.9	79.4	-11.1	-14.9	-6.8	3.9	19.2	24.7	14.6	10.4	10.5	7.7	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	8.5	10.0	16.3	-1.7	9.0	12.8	15.4	10.6	9.4	8.3	2.6	-10.1	16.7	4.1
Korea, Rep. of	4.9	24.7	18.1	-3.4	12.1	14.5	19.7	7.8	11.4	12.6	6.6	-1.2	14.7	9.5
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	0.8	12.8	18.3	-8.6	11.4	10.2	15.4	7.8	11.4	9.6	0.9	-8.7	25.6	4.5
<b>South Asia</b>														
Bangladesh	17.8	30.7	14.4	14.9	-2.3	6.9	12.5	15.6	25.8	13.0	7.0	0.0	1.0	29.3
Bhutan	...	34.3	-2.5	8.6	-1.2	14.3	26.6	33.3	69.5	2.6	-14.0	4.6	-1.3	...
India	11.1	31.4	18.2	4.3	21.1	9.6	27.2	26.1	20.4	5.9	14.6	-4.8	22.7	15.3
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	-23.2	-4.7	12.3	-3.0	-1.3	-0.9	0.7	3.9	-10.4	-2.1
Sri Lanka	...	7.7	17.1	-8.0	3.4	3.4	7.7	6.6	3.8	7.3	0.4	-12.3	8.8	11.0
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	1.3	16.8	11.9	1.3	5.8	2.3	-0.7	-1.3	3.7	-9.6	-6.2	-5.3	-7.8	16.6
Cambodia	-23.5	35.1	39.4	16.5	13.0	11.1	28.1	16.4	19.2	10.1	15.7	-6.3	16.0	18.9
Indonesia	0.4	7.7	26.5	0.6	-1.2	5.9	13.5	16.6	9.4	8.5	9.5	-9.7	15.3	13.6
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	17.8	19.0	16.1	-6.8	5.4	5.1	16.1	8.3	6.7	3.8	1.6	-10.9	11.3	4.2
Myanmar	14.5	-22.0	79.3	16.6	23.0	-25.0	12.3	3.6	25.3	-3.1	-15.5	-2.0	16.1	...
Philippines	1.9	12.0	13.7	-7.1	4.7	4.5	12.8	5.0	12.6	6.7	-2.7	-7.8	21.0	-4.2
Singapore	12.9	22.3	14.5	-3.6	7.6	14.2	19.1	12.4	10.9	9.0	4.7	-7.8	19.1	2.6
Thailand	13.4	15.4	15.8	0.0	5.9	9.1	14.6	7.7	10.8	8.9	6.2	-12.3	14.5	...
Viet Nam	...	...	...	...	-9.9	-16.6	...	...	...	...	5.0	11.1	15.4	11.4
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	7.1	...	10.7	4.4	1.3	26.8	7.0	-5.8	4.5	-7.6	-11.8	9.6	27.9
Papua New Guinea	-4.6	3.3	7.1	10.4	-1.3	14.3	2.9	6.8	0.4	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	75.8	81.2	0.3	10.5	-3.7	-7.0	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	4.8	4.8	9.7	8.2	-0.7	0.2	1.2	3.5	2.7	4.0	3.7	1.7	5.3	0.4
Japan	7.2	4.2	12.6	-7.0	7.9	9.5	14.0	6.2	9.9	8.7	1.4	-24.2	24.2	0.0
New Zealand	7.3	2.3	6.3	3.0	7.8	1.1	4.8	-0.2	3.0	3.4	-3.0	4.8	2.1	1.9

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## National Accounts

Table 2.22 **Growth Rates of Real Imports of Goods and Services**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	7.2	6.4	18.9	26.5	-2.9	14.3	3.8	13.0	7.3	-19.2	12.8	-2.5
Azerbaijan	...	17.8	17.3	48.0	16.4	57.6	33.9	19.8	20.1	20.1	16.5	0.5	12.4	1.5
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	-19.9	28.0	-1.5	0.5	-7.6	14.9	12.5	12.2	25.8	-11.5	-16.0	0.9	6.9
Kyrgyz Republic	...	-18.4	0.4	-13.8	13.1	16.0	16.3	6.5	45.0	11.0	13.6	-19.4	-6.9	13.7
Pakistan	-3.5	4.0	-2.2	2.2	3.0	11.2	-8.6	40.5	18.7	-3.5	3.5	-15.1	4.4	-0.1
Tajikistan	...	...	...	-14.5	11.1	23.7	25.9	16.5	39.6	27.3	1.4	-4.0	8.0	...
Turkmenistan	...	-6.4	2.2	-0.9	-30.3	9.5	10.4	-9.3	-18.9	23.1	35.6	6.4	3.5	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong, China	11.4	12.4	16.5	-1.5	7.4	11.4	13.8	8.0	9.1	9.1	2.3	-9.0	17.3	4.7
Korea, Rep. of	13.3	22.5	22.6	-4.9	14.4	11.1	11.7	7.6	11.3	11.7	4.4	-8.0	17.3	6.5
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	5.5	10.1	15.3	-14.8	6.2	7.7	17.5	3.2	4.6	3.0	-3.7	-13.1	28.2	-0.6
<b>South Asia</b>														
Bangladesh	9.3	48.4	10.2	11.2	-11.2	7.4	10.6	19.1	18.2	16.0	-2.1	-2.6	0.7	29.2
Bhutan	...	13.6	10.4	-2.7	7.1	7.6	37.5	17.0	12.9	-0.1	2.3	8.7	12.3	...
India	3.4	28.1	4.5	2.8	12.3	13.8	22.2	32.6	21.5	10.2	22.7	-2.2	15.6	18.5
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	-15.1	0.1	8.5	6.9	6.5	2.9	8.2	12.6	28.3	-4.7
Sri Lanka	...	0.8	14.8	-10.7	10.9	11.2	9.0	2.7	6.9	3.7	4.0	-9.6	12.6	20.0
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	17.9	15.9	-6.2	3.2	13.3	-8.1	-3.1	10.2	4.1	13.2	11.0	-0.8	-0.3	11.4
Cambodia	-25.1	33.1	30.6	9.6	15.3	12.9	19.8	17.3	16.0	12.1	22.6	-4.9	10.3	16.3
Indonesia	21.4	20.9	25.9	4.2	-4.2	1.6	26.7	17.8	8.6	9.1	10.0	-15.0	17.3	13.3
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	26.3	23.7	24.4	-8.2	6.2	4.5	19.6	8.9	8.2	5.9	2.3	-12.7	15.6	6.2
Myanmar	48.0	19.8	-8.0	11.0	-17.5	-15.8	-16.5	2.2	42.4	7.4	31.3	-18.9	57.0	...
Philippines	10.0	16.0	11.8	1.2	10.1	2.6	6.2	3.3	3.5	1.7	1.6	-8.1	22.5	0.2
Singapore	14.5	22.8	20.0	-5.9	5.8	9.6	22.9	11.3	11.3	8.1	9.5	-11.1	16.2	2.4
Thailand	23.7	23.0	26.0	1.5	6.2	11.1	20.3	16.2	3.0	4.2	11.4	-20.9	22.6	...
Viet Nam	...	...	...	...	-13.6	-18.5	...	...	...	...	7.6	6.7	14.7	2.9
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	33.0	...	-17.4	1.5	-12.2	17.8	3.7	1.0	-5.4	6.7	-19.6	-5.5	13.8
Papua New Guinea	-16.7	14.6	-4.7	8.3	17.5	-6.0	13.7	4.7	3.6	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	-18.1	84.3	30.2	17.8	37.1	-5.2	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	5.7	16.3	11.9	-1.0	1.4	13.1	12.7	12.2	7.2	9.4	14.6	-3.3	5.6	10.4
Japan	8.1	11.4	10.7	0.9	0.3	3.9	7.9	4.2	4.5	2.3	0.3	-15.7	11.1	5.9
New Zealand	0.7	6.8	-0.5	4.0	7.2	12.7	12.4	4.3	-1.6	10.4	-4.2	-9.5	11.1	6.0

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## Production

Table 2.23 **Growth Rates of Agriculture Production Index**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	7.2	4.6	-16.1	0.0	10.7	3.3	-1.9	11.2	-9.9	10.3	-7.3	16.3	0.7
Armenia	...	-1.6	-2.7	2.6	4.1	5.9	20.8	11.6	5.5	9.0	10.3	1.8	-14.8
Azerbaijan	...	-4.8	8.8	7.7	3.9	4.6	1.9	15.0	1.3	0.3	5.0	8.0	-2.8
Georgia	...	11.9	-16.1	4.7	-4.3	16.4	-9.3	16.4	-38.1	16.1	-13.8	-3.2	-11.0
Kazakhstan	...	-18.3	-8.5	17.6	1.1	-0.0	-1.2	8.0	7.5	9.0	-7.7	14.9	-13.0
Kyrgyz Republic	...	-6.6	4.8	5.5	-7.2	5.3	3.3	-3.1	1.2	-1.0	-0.2	-0.3	0.6
Pakistan	3.6	8.8	1.2	-2.1	1.3	3.7	7.8	3.0	2.4	3.5	4.1	2.5	-2.0
Tajikistan	...	-10.5	11.1	11.0	10.8	5.8	10.3	-3.1	1.7	1.2	1.7	6.9	4.8
Turkmenistan	...	0.3	8.0	15.2	0.6	5.9	8.4	3.4	-1.0	17.7	-6.7	-1.8	9.5
Uzbekistan	...	0.5	3.2	1.1	3.9	2.1	7.6	6.3	6.3	0.8	6.2	3.6	5.3
<b>East Asia</b>													
China, People's Rep. of	8.9	8.3	3.5	2.0	4.2	1.5	7.0	3.9	2.8	3.2	5.9	2.5	-0.4
Hong Kong, China	-14.0	0.0	2.4	2.4	0.0	-4.7	-9.8	13.5	-9.5	-21.1	-40.0	-16.7	0.0
Korea, Rep. of	1.0	4.9	1.0	0.0	-3.2	-2.5	1.3	0.6	1.1	0.5	3.8	2.4	-6.8
Mongolia	-2.2	5.8	-1.4	-21.3	-7.2	-14.4	17.6	-7.8	-0.9	9.5	13.5	22.2	-21.2
Taipei, China	...	3.7	2.2	-1.2	4.1	0.1	-4.2	-5.7	0.7	-2.4	-5.1	-1.8	2.0
<b>South Asia</b>													
Bangladesh	0.1	3.7	6.9	-1.9	2.8	2.8	-1.8	12.8	3.4	5.7	7.7	0.2	7.1
Bhutan	5.2	4.6	-21.3	1.5	-0.3	8.2	15.2	24.4	1.0	0.5	-14.2	-0.5	3.1
India	0.6	2.6	-1.0	3.2	-7.6	10.7	-1.2	5.9	5.4	8.5	1.6	-2.4	5.3
Maldives	6.2	-3.1	5.3	-14.4	-2.1	17.0	22.0	-32.1	35.0	-14.5	-3.7	-10.5	10.6
Nepal	4.9	7.8	5.1	3.4	2.3	3.7	4.0	2.1	1.0	-1.0	5.5	5.3	0.7
Sri Lanka	7.4	2.6	2.1	-2.1	1.4	3.2	-3.9	9.8	0.8	-0.9	10.5	-2.3	8.9
<b>Southeast Asia</b>													
Brunei Darussalam <sup>a</sup>	-15.1	2.3	14.7	15.0	-8.6	-0.3	17.4	-17.8	22.4	21.0	2.5	0.4	0.7
Cambodia	-3.4	28.4	2.2	1.0	-4.3	18.4	-5.2	28.6	10.0	5.1	8.5	3.9	10.2
Indonesia	3.3	7.3	3.1	2.7	7.0	6.8	6.1	3.2	4.8	3.2	5.9	5.8	0.8
Lao PDR	11.1	-6.1	14.8	1.0	9.0	-3.5	5.1	4.3	3.1	6.0	11.3	3.6	-1.9
Malaysia	1.3	3.3	14.8	1.0	9.0	-3.5	5.1	4.3	3.1	6.0	11.3	3.6	-1.9
Myanmar	-1.7	3.6	9.0	8.1	4.2	8.4	7.9	9.4	12.3	5.4	7.7	0.4	0.1
Philippines	9.1	1.1	3.4	4.4	3.6	2.9	6.2	2.6	2.5	6.3	2.4	-1.0	0.9
Singapore	-37.5	-1.4	-59.7	3.2	32.2	11.0	13.0	-22.7	11.7	4.0	-7.0	7.2	-4.4
Thailand	-6.2	0.7	6.1	3.9	0.7	8.0	-3.1	-1.9	5.0	8.7	0.6	1.5	-2.9
Viet Nam	0.9	5.9	6.2	3.6	7.2	5.2	5.5	3.6	4.5	4.8	4.0	2.0	2.7
<b>The Pacific</b>													
Cook Islands	-5.8	-5.8	0.6	-0.4	-18.4	-25.1	-16.2	2.7	3.7	4.5	-0.6	-7.8	7.0
Fiji	3.2	2.2	0.1	-8.2	4.5	-7.0	7.6	1.5	4.2	-9.5	-1.1	-8.9	-2.6
Kiribati	-18.3	-1.8	-5.3	1.3	2.3	-1.6	24.2	0.5	2.6	3.2	3.5	-4.1	25.5
Marshall Islands	...	58.5	-74.9	-12.1	248.9	131.5	-38.1	0.0	2.5	31.5	28.0	-9.1	13.4
Micronesia, Fed. States of	...	...	1.4	3.7	0.6	-1.3	8.4	2.1	-0.8	-11.6	2.1	-4.4	21.7
Nauru	0.9	2.3	1.6	-6.9	0.4	-3.0	9.4	1.4	-0.1	-5.1	6.0	-4.1	14.2
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	-0.5	0.3	3.0	-0.9	2.8	1.3	2.9	1.9	3.0	5.1	5.6	-3.8	-4.1
Samoa	-10.1	14.3	4.5	-7.1	6.0	-2.2	11.0	3.8	-2.0	1.4	2.8	1.7	14.4
Solomon Islands	-1.2	6.9	5.0	-3.7	1.0	2.2	12.5	12.9	2.3	6.5	7.3	-8.1	7.0
Timor-Leste	8.1	-2.4	6.7	2.9	6.7	-1.1	1.1	-1.3	4.6	-1.5	10.3	10.5	2.4
Tonga	-0.9	-8.9	-1.9	0.9	2.7	-3.5	1.7	0.7	4.9	-1.5	4.5	1.4	0.6
Tuvalu	-8.4	1.6	6.2	-3.9	2.9	2.2	4.3	1.9	-2.2	0.2	6.3	-1.3	8.4
Vanuatu	29.6	3.1	-4.6	0.4	-8.7	4.9	14.3	-1.4	0.9	2.2	1.5	-2.4	8.8
<b>Developed Member Economies</b>													
Australia	5.2	7.9	-2.0	4.8	-14.6	10.2	-6.3	8.8	-14.5	3.1	4.2	2.5	-1.8
Japan	-0.8	-2.9	-0.6	-1.9	1.0	-3.2	0.8	1.0	-2.0	1.6	0.5	-1.9	-2.8
New Zealand	-4.4	2.0	7.1	3.6	1.1	5.0	4.7	-2.2	1.1	2.0	-0.7	-2.2	3.4

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: FAOSTAT Database Online (FAO 2012), country sources.

## Production

Table 2.24 **Growth Rates of Manufacturing Production Index**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	-0.4	-16.3	17.3	15.1	8.0	8.0	9.2	7.6	8.1	6.7	93.1	-9.4	14.7	17.5
Kyrgyz Republic	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pakistan	4.9	1.5	...	1.0	13.7	7.2	18.9	18.2	9.2	8.7	4.0	-8.0	4.8	1.2
Tajikistan	0.2	-16.3	12.0	16.3	22.5	9.9	15.1	10.5	6.1	9.3	-3.7	-6.2	...	...
Turkmenistan	-0.9	-4.9	13.4	13.3	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	-1.7	0.0	1.4	1.1	-2.3	2.7	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	...	...	...	...	...	...	...	18.2	20.1	13.3	11.6	16.6	14.3
Hong Kong, China	-0.7	0.9	-0.5	-4.4	-9.8	-9.2	2.9	3.0	2.2	-1.4	-6.7	-8.3	3.6	0.7
Korea, Rep. of	8.9	12.0	17.2	0.1	8.1	5.6	10.7	6.4	8.7	7.1	3.4	-0.2	16.8	7.0
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	...	5.3	7.8	-9.0	8.9	9.6	10.0	3.7	4.5	8.3	-1.6	-8.0	28.6	5.1
<b>South Asia</b>														
Bangladesh	12.8	5.8	4.9	6.5	4.8	6.3	7.1	8.5	10.8	10.1	7.2	7.8	6.3	13.8
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
India	9.0	14.1	5.3	2.9	6.0	7.4	...	10.3	15.0	18.4	2.5	4.8	9.0	2.9
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	-1.0	9.3	6.5	3.5	-6.6	2.4	2.0	-12.4	2.0	2.4	-0.9	-5.9	3.5	...
Sri Lanka	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	48.8	2.0	...	...	...	...	...	...	...	...	...	...
Indonesia	13.7	11.0	3.6	-4.5	3.3	5.5	3.3	1.3	-1.6	5.6	3.0	1.3	4.4	5.6
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	14.9	14.2	24.9	-6.5	5.2	10.9	12.8	5.1	8.9	2.2	0.7	-10.0	11.1	4.6
Myanmar	0.5	7.7	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	10.2	15.0	16.0	7.3	8.9	6.1	11.7	13.9	6.3	6.3	12.1	-7.9	16.5	...
Singapore	9.3	10.3	15.3	-11.6	8.4	3.0	13.9	9.5	11.9	5.9	-4.0	-4.2	29.8	7.8
Thailand	14.2	6.2	6.9	2.7	9.1	14.0	11.7	5.0	6.4	8.1	3.9	-7.2	14.4	-9.3
Viet Nam	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	7.3	3.1	-5.6	13.3	-0.2	-2.1	12.4	-16.4	1.8	2.1	-1.4	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Samoa <sup>b</sup>	-9.1	19.3	2.8	6.8	2.8	-4.2	4.3	0.0	-1.0	-3.0	-15.5	-11.3	25.7	-7.0
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	-1.0	2.6	2.1	1.8	1.0	1.2	0.3	0.6	1.6	1.0	0.3	3.7	2.7	0.9
Japan	99.2	3.3	5.7	-6.8	-1.2	3.1	4.8	1.4	4.5	2.8	-3.4	-21.9	16.6	-2.5
New Zealand	-17.8	3.2	4.4	0.5	5.7	5.2	4.0	0.9	-5.2	-0.8	-2.1	-10.4	8.8	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b Refers to volume indices of industrial production.

Sources: Country sources; for New Zealand, Organisation for Economic Co-operation and Development website ([www.oecd.org](http://www.oecd.org)).

## Money, Finance, and Prices

### Snapshots

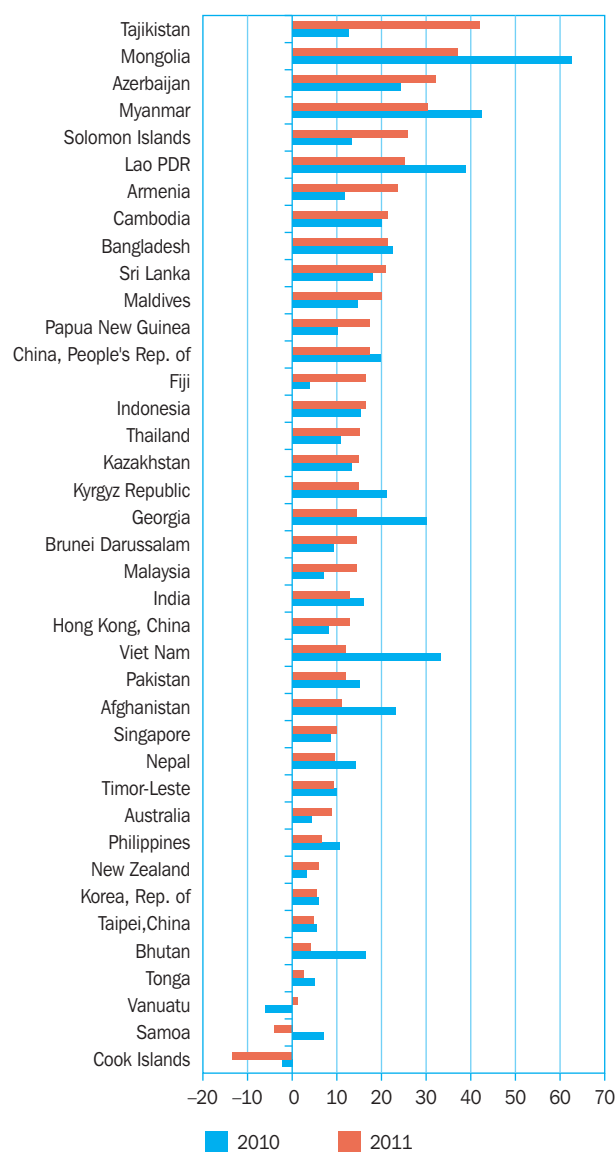
- Average money supply growth in the region's 39 economies continued to decline from 2010 levels, contracting to 14.6% in 2011 from 15.4% in 2010, as countries adopted tighter fiscal and monetary policy to control inflationary pressures.
- Banks' nonperforming loans (NPLs) have remained manageable in the region but are still high and rising in Kazakhstan and Pakistan.
- The consumer price indices (CPIs) in Asia and the Pacific have increased since 2010 on account of food prices and their heavy weight in the CPI. The food CPI rose faster than the general CPI in 2011—a global phenomenon that puts more people at risk of falling into extreme poverty.

### Key Trends

**Money supply growth has continued to decline.** Within the region, the growth of money supply has declined steadily, from a simple average growth of 17.6% in 2009 to 15.4% in 2010 and to 14.6% in 2011. Among the 39 reporting economies (Figure 3.1), 19 experienced growth in their money supply while 20 experienced a decline in the growth rate of their money supply. Tajikistan showed the largest increase in money supply, at almost 30% growth from the previous year's level; Georgia, Mongolia, and Viet Nam showed the largest decreases, a result of their adapting tighter fiscal and monetary policy to control inflationary pressures. The region's developed countries saw increases in their money supply from the 2010 levels.

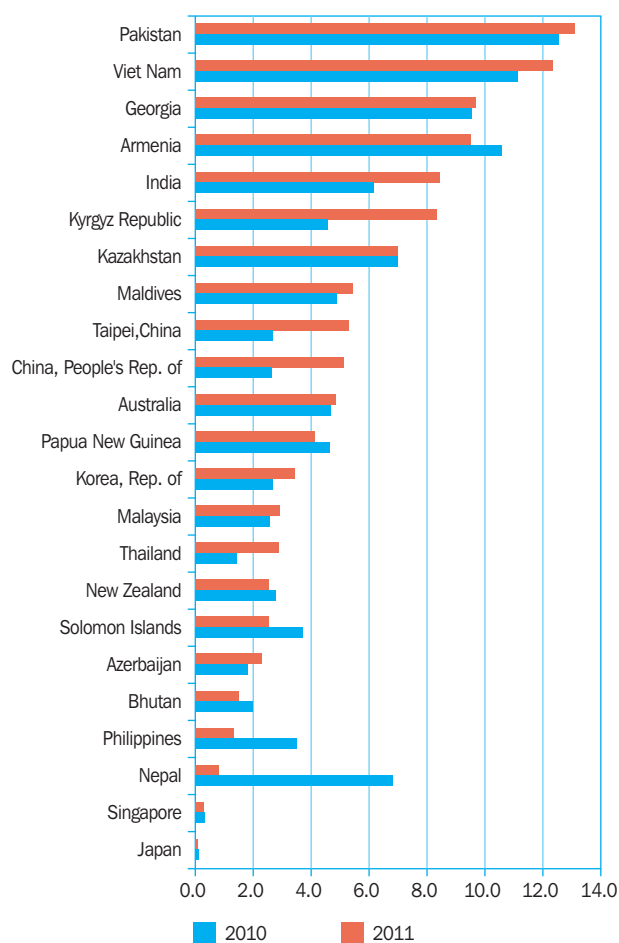
**The yields on 90-day treasury bills in 2011 were generally the same as in the previous year.** Governments use treasury bills to finance expenditure and central banks use them in open market operations to control the amount of money and to influence the price of credit. Figure 3.2 shows the yields on 90-day treasury bills in 23 economies. Most of the yields have remained fairly stable over the last year. Economies in Central and West Asia provided the highest yields, at more than 7%. However, in Nepal, yields dropped from 6.8% in 2010 to 0.8% in 2011, caused by a drop in real estate business and a dim industrial climate (NEPSE Guide 2011). In Armenia, the Philippines, Nepal, and the Solomon Islands, yields on 90-day treasury bills were reduced by more than 1%.

Figure 3.1 **Percentage Growth of Money Supply, 2010–2011**  
(annual percentage change)



Source: Table 3.5.

Figure 3.2 Yield on Short-term Treasury Bills, 2010–2011 (%)

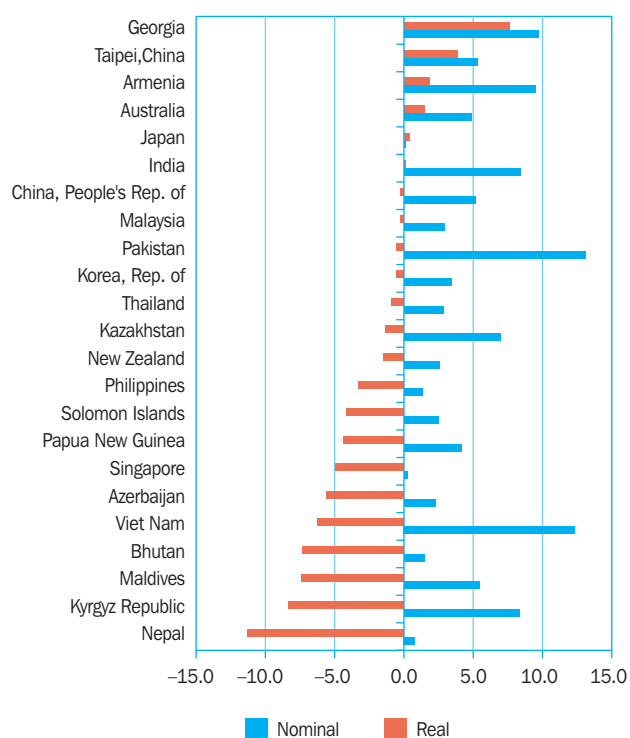


Source: Table 3.10.

Figure 3.3 shows the nominal and ex-post real interest rates on short-term treasury bills. Treasury bills are an asset in which wealth can be held, as an alternative to savings deposits accounts that tend to offer lower nominal interest rates. However, Figure 3.3 shows that in 2011, ex-post real interest rates for short-term treasury bills were negative in all but five of the region's economies, as inflation is higher than nominal interest rates. Inflation has reduced the real return to lenders, which is favorable to borrowers.

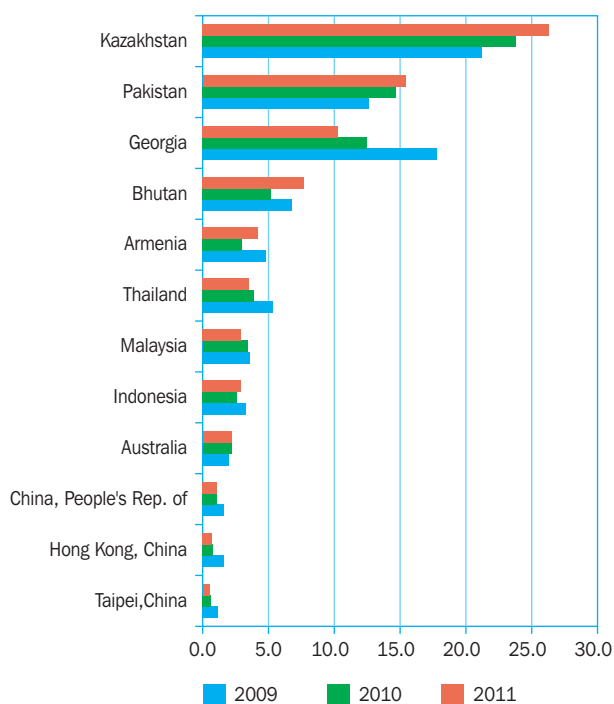
**Bank NPLs are at manageable levels and continue to decline, as a percentage of total gross loans, in most economies.** Similar to the trend in 2010, bank's NPLs remained at manageable levels. Notable exceptions are Kazakhstan and Pakistan as shown in Figure 3.4, where NPLs are extremely high and continue to rise. An opposite trend is seen for Georgia, where NPLs have been declining steadily since 2009. Economies in East and Southeast Asia

Figure 3.3 Nominal and Ex-post Real Interest Rates on Short Term Treasury Bills, 2011



Sources: Tables 3.1 and 3.10.

Figure 3.4 Bank Non-performing Loans, 2009–2011 (% of total gross loans)



Source: Table 3.12.

have also seen a declining share of NPLs in total gross loans, which suggests the banks in these subregions are in generally good health.

**Inflation has remained manageable in 2011 and does not pose a threat to economic growth.** Figure 3.5 illustrates the annual percentage change in the CPIs of 45 economies in Asia and the Pacific. The simple average of inflation rates for 45 economies rose to 6.7% in 2011 from 4.6% in 2010. Since 2010, the regions' CPIs have increased, after a sharp decline in inflation rates in 2009.

Inflation in Georgia declined by the largest amount at 9 percentage points. The moderation in global food price inflation and agricultural recovery has brought inflation down for Georgia (IMF 2012b). Conversely, Afghanistan's CPI increased by 18.2 percentage points due to its expansionary monetary policy and the higher international food and fuel prices, as the country's economy is import dependent (IMF 2011). An almost 9% growth in inflation in the Kyrgyz Republic was mainly due to increases in food and fuel prices (IMF 2012b). Box 3.1 shows the monetary policy frameworks used by selected economies in Asia and the Pacific region.

Box 3.1 **Monetary Policy Framework of Selected Economies in Asia and the Pacific Region**

The International Monetary Fund lists four kinds of monetary policy frameworks that may be used to anchor inflationary expectations: (1) an exchange rate anchor framework, wherein the exchange rate serves as the nominal anchor; (2) an inflation targeting framework, wherein monetary policies are guided by targets for inflation and monetary authorities adjust an instrument, typically a short-term or overnight policy rate, to achieve the targeted inflation rate; (3) money aggregate targeting, in which a target growth rate for monetary aggregates, such as M1 and M2, is used as the intermediate target for monetary policy; and (4) other frameworks that have no specific nominal anchor but in which several indicators for conducting monetary policy are monitored (IMF 2008).

In Asia and the Pacific region, the majority of the economies use an exchange rate anchor for monetary policy, although seven economies use an inflation targeting framework. Box Table 3.1 presents the monetary policy framework of selected economies in the region and the average unweighted inflation rates for 2010 and 2011. Generally, economies that use an inflation targeting framework have experienced a more stable inflation rate, in the range of 3.1% to 4.2% in the last 2 years (exception is Armenia, which is in transition from an exchange rate anchor and inflation targeting). The 27 economies that use an exchange rate anchor have a more varied range of inflation rates, from an almost -1% (i.e., deflation) for Kiribati to as high as 14.3% for Viet Nam. Of the 27 economies that use an exchange rate anchor monetary policy framework, 6 have inflation rates under 4%; 5 of them are small island economies whose exchange rates are closely linked to the US dollar, except for Vanuatu.

Box Table 3.1 **Monetary Policy Framework and Average Unweighted Inflation for Asia and the Pacific Economies, 2010–2011 (%)**

Exchange Rate Anchor							
Country	Average Unweighted Inflation	Country	Average Unweighted Inflation	Country	Average Unweighted Inflation	Country	Average Unweighted Inflation
Azerbaijan	6.8	Hong Kong, China	3.9	Nepal	10.7	Timor-Leste	12.3
Bangladesh	8.1	Kazakhstan	7.3	Palau	3.0	Turkmenistan	5.0
Bhutan	7.9	Kiribati	-0.8	China, Peoples' Rep. of	4.4	Tonga	4.9
Brunei Darussalam	1.2	Kyrgyz Republic	12.3	Marshall Islands	1.6	Uzbekistan	7.5
Cambodia	5.2	Lao PDR	6.8	Samoa	3.0	Vanuatu	2.0
Fiji	7.1	Maldives	9.7	Solomon Islands	3.8	Viet Nam	14.3
Micronesia, Fed. States of	4.4	Myanmar	6.4	Sri Lanka	6.5		
Inflation Targeting				Money Aggregate Target		Other <sup>a</sup>	
Country	Average Unweighted Inflation	Country	Average Unweighted Inflation	Country	Average Unweighted Inflation	Country	Average Unweighted Inflation
Armenia*	8.0	New Zealand	3.2	Afghanistan	4.6	India	9.4
Australia	3.1	Philippines	4.2	Georgia	6.6	Japan	-0.5
Indonesia	5.2	Thailand	3.6	Papua New Guinea	7.3	Malaysia	2.5
Korea, Rep. of	3.5			Taipei, China	1.2	Pakistan	11.9
						Singapore	4.0

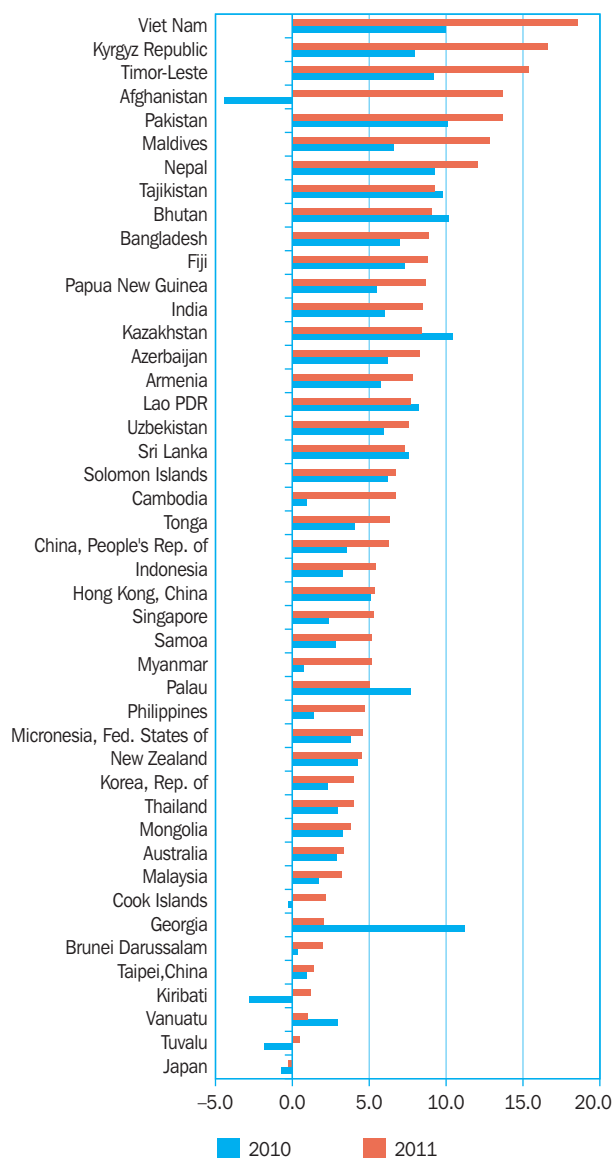
a Includes countries that have no explicitly stated nominal anchor, but rather monitor various indicators in conducting monetary policy.

\* The central bank has taken preliminary step toward inflation targeting and is preparing for the transition to full-fledged inflation targeting.

Source: IMF (2008).



Figure 3.5 Inflation Rate, 2010–2011

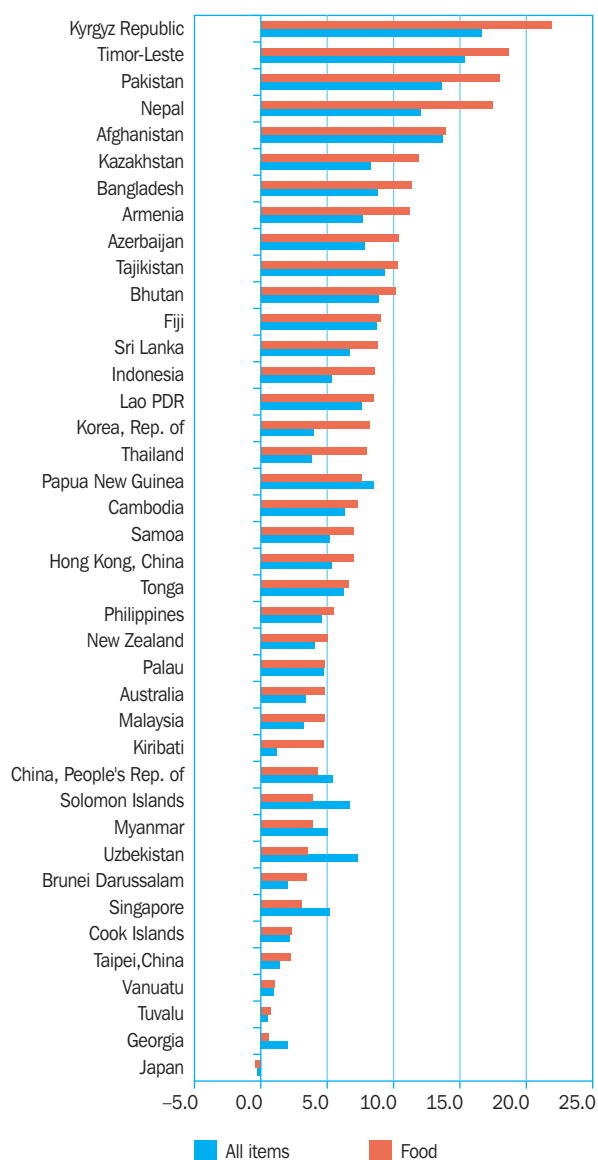


Source: Table 3.1.

**Food prices continue to rise faster than the overall CPI in Asia and the Pacific.** Food CPIs rose faster than the overall CPI in 32 of the region's economies, but more slowly in 8 economies. In 2011, the simple average of food CPI rates for 40 economies was 7.5%: 1.3 percentage points higher than the general CPI peak of 6.2%. Figure 3.6 illustrates the continued rise of the food CPI compared with the overall CPI in Indonesia, the Republic of Korea, the Kyrgyz Republic, Nepal, and Thailand. Extreme weather conditions largely affected the production of food, which directly affected the increases in the four countries' food prices (ADB 2012). Conversely, in Singapore, the Solomon Islands, and Uzbekistan, the general inflation outpaced that of food prices. For Singapore, housing and transport prices greatly exceeded the rise in food prices and the strength of the Singapore dollar helped ease the rise in food prices, most of which is imported.

Box 3.2 illustrates the weights of food prices to CPI and how it affects poverty.

Figure 3.6 **All Items and Food Price Indices, 2011**  
(annual percentage change)



Sources: Tables 3.1 and 3.2.

Box 3.2 **Effect of Food Prices to CPI and Poverty**

Food prices have trended higher globally. This threatens to increase the number of people in poverty and reduce the standard of living of households. An ADB study shows (Box Table 3.2) that a 10% increase in domestic food prices could push 64.4 million more people into extreme poverty, below the \$1.25-a-day line, and an increase of 20% could push 128.8 million below the line and 30% could send 193.2 million into poverty (ADB 2011).

Box Table 3.2 **Impact of Domestic Food Price Increase on Poverty for Developing Asia**  
(based on the \$1-a-day poverty line)

	Poverty before Price Increase	Poverty after Food Price Increase by		
		10%	20%	30%
Percentage of poor (%)	27.1	29.0	30.9	32.9
Change in share of poor (percentage points)		1.9	3.9	5.8
Number of poor (million)	903	968	1,032	1,097
Change in number of poor (million)		64.4	128.8	193.2
Poverty gap ratio (%)	6.79	8.15	9.51	10.86
Change in poverty gap ratio (percentage points)		1.4	2.7	4.1

Source: ADB (2011).

Food prices carry considerable weight in consumer expenditure baskets; in developing Asia, food price is strongly correlated with the inflation of all items (ADB 2008). As illustrated in Figure 3.6, the food price increase has generally exceeded the inflation rate based on the overall consumer price index (CPI). Box Table 3.3 outlines the share of food in the general CPI of selected countries; except for the Republic of Korea, food comprises more than 20% of the general CPI. Hence, as shown by ADB (2011), continued increases in food prices can adversely affect the poverty counts.

Box Table 3.3 **Food Weights in CPI**

Economy	Share (%)
Bangladesh	58.84
Cambodia <sup>a</sup>	44.78
China, People's Rep. of <sup>b</sup>	30.20
Hong Kong, China	26.67
India	46.19
Indonesia <sup>c</sup>	36.20
Korea, Republic of <sup>a</sup>	14.04
Malaysia <sup>a</sup>	31.40
Pakistan <sup>b</sup>	40.34
Philippines	46.58
Singapore <sup>a</sup>	22.05
Sri Lanka	45.50
Taipei, China	26.08
Thailand <sup>a</sup>	33.01
Viet Nam	39.93

CPI = consumer price index.

<sup>a</sup> Includes nonalcoholic beverages.

<sup>b</sup> Includes beverages.

<sup>c</sup> Includes beverages and tobacco.

Source: ADB (2011).

## Data Issues and Comparability

Some countries (such as Afghanistan and Azerbaijan) need to meet international reporting standards/classifications (e.g., by adopting a 4-digit chart of accounts that conforms with international standards) on the compilation of monetary and financial statistics. And some countries (e.g., Azerbaijan, Bhutan, and Tajikistan) are planning to enhance the coverage of their monetary, financial corporation, and depository corporations surveys, which will include compiling information on insurance companies and pension funds and revising the classification of foreign assets and domestic credit (IMF 2012a).

Comparability differs from country to country in (1) money supply (M2 vs M3); (2) CPI coverage (e.g., for the People's Republic of China, some new items may not be included in the market/commodity basket); and (3) procedures/methodology for measuring banks' average deposit and lending rates.

Pacific island states (e.g., Kiribati, the Marshall Islands, the Federated States of Micronesia, Nauru, Palau, and Tuvalu) need to make an effort to collect, compile, and publish monetary statistics.

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Table 3.1 **Growth Rates of Consumer Price Index<sup>a</sup>**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	11.9	9.0	4.4	22.5	4.9	-4.5	13.7
Armenia	...	176.0	-0.8	3.1	1.1	4.7	7.0	0.6	2.9	4.4	9.0	3.4	8.2	7.7
Azerbaijan	...	...	1.8	1.5	2.9	2.2	6.7	9.6	8.3	16.7	20.8	1.5	5.7	7.8
Georgia	...	...	4.6	3.4	5.4	7.0	7.5	6.2	8.8	11.0	5.5	3.0	11.2	2.0
Kazakhstan	...	176.2	13.2	8.4	5.9	6.4	6.9	7.6	8.6	10.8	17.0	7.3	6.2	8.3
Kyrgyz Republic	...	43.5	18.7	6.9	2.1	3.1	4.1	4.3	5.5	10.2	24.5	6.8	8.0	16.6
Pakistan	6.0	13.0	3.6	4.4	3.5	3.1	4.6	9.2	7.9	7.8	12.0	17.0	10.1	13.7
Tajikistan	...	2383.7	60.6	12.5	14.5	13.7	5.7	7.1	12.5	19.7	11.8	5.0	9.8	9.3
Turkmenistan	...	...	8.3	11.6	8.8	5.6	5.9	10.7	8.2	6.3	14.5	-2.7	5.0	...
Uzbekistan	...	...	24.9	27.4	27.6	10.3	3.7	7.8	8.7	6.1	7.2	7.8	7.6	7.3
<b>East Asia</b>														
China, People's Rep. of	3.1	17.1	0.4	0.7	-0.8	1.2	3.9	1.8	1.5	4.8	5.9	-0.7	3.3	5.4
Hong Kong, China	10.2	9.1	-3.8	-1.6	-3.0	-2.6	-0.4	1.0	2.0	2.0	4.3	0.5	2.4	5.3
Korea, Rep. of	8.6	4.5	2.3	4.1	2.8	3.5	3.6	2.8	2.2	2.5	4.7	2.8	3.0	4.0
Mongolia	...	56.8	11.6	6.2	0.9	5.2	8.3	12.8	4.8	9.6	28.0	7.6	10.2	9.1
Taipei, China	4.1	3.7	1.3	0.0	-0.2	-0.3	1.6	2.3	0.6	1.8	3.5	-0.9	1.0	1.4
<b>South Asia</b>														
Bangladesh	3.9	8.9	2.8	1.9	2.8	4.4	5.8	6.5	7.2	7.2	9.9	6.7	7.3	8.8
Bhutan	10.0	9.5	4.0	3.4	2.5	2.6	4.2	5.3	5.0	5.2	8.3	4.4	7.0	8.9
India	11.6	10.2	3.7	4.3	4.1	3.7	4.0	4.2	6.2	6.2	9.1	12.4	10.4	8.4
Maldives	3.6	5.5	-1.2	0.7	0.9	-2.9	6.4	1.6	3.5	7.4	12.3	4.0	6.6	12.8
Nepal <sup>b</sup>	9.7	7.7	3.4	2.4	2.9	4.8	4.0	4.5	3.7	6.5	6.9	14.1	9.2	12.1
Sri Lanka <sup>c</sup>	21.5	7.7	6.2	14.2	9.6	5.8	9.0	11.0	10.0	15.8	29.2	3.5	6.2	6.7
<b>Southeast Asia</b>														
Brunei Darussalam <sup>d</sup>	2.1	6.0	1.2	0.6	-2.3	0.3	0.9	1.1	0.2	1.0	2.1	1.1	0.4	2.0
Cambodia <sup>e</sup>	141.8	7.8	-0.8	0.2	3.3	1.1	3.9	5.8	4.7	5.9	19.7	-0.7	4.0	6.3
Indonesia <sup>e</sup>	7.8	9.5	9.3	12.5	10.0	6.8	6.1	10.5	13.1	6.4	9.8	4.8	5.1	5.4
Lao PDR	35.9	19.6	23.1	7.7	10.7	15.5	10.4	7.2	6.8	4.5	7.5	0.0	6.0	7.6
Malaysia	3.1	3.4	1.6	1.4	1.8	1.2	1.4	3.0	3.6	2.0	5.4	0.6	1.7	3.2
Myanmar	...	...	-0.2	21.2	57.0	36.6	4.5	9.4	20.0	20.9	17.9	1.5	7.7	5.0
Philippines	12.4	6.7	4.0	6.8	3.0	3.5	6.0	7.6	6.2	2.8	9.3	3.2	3.8	4.6
Singapore	3.4	1.7	1.3	1.0	-0.4	0.5	1.7	0.5	1.0	2.1	6.6	0.6	2.8	5.2
Thailand	6.0	5.8	1.6	1.7	0.6	1.9	2.8	4.5	4.7	2.2	5.4	-0.9	3.3	3.8
Viet Nam	...	...	-1.6	-0.5	4.0	3.2	7.8	8.3	7.1	8.3	23.1	5.9	10.0	18.6
<b>The Pacific</b>														
Cook Islands	5.3	0.9	3.2	8.7	3.4	2.0	0.9	2.5	3.4	2.5	7.8	6.7	-0.3	2.2
Fiji	8.1	2.2	1.1	4.3	0.7	4.2	2.8	2.3	2.5	4.8	7.8	3.6	5.5	8.7
Kiribati <sup>c</sup>	10.2	4.1	0.4	6.0	3.2	1.9	-1.0	-0.3	-1.5	4.2	11.0	8.4	-2.8	1.2
Marshall Islands <sup>c</sup>	1.2	6.8	0.9	1.6	...	...	2.0	3.5	5.3	2.6	14.7	0.5	1.6	...
Micronesia, Fed. States of	...	...	1.8	1.3	-0.2	-0.2	1.7	4.1	4.4	3.6	6.6	8.2	4.3	4.6
Nauru	12.6	1.8	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	-1.7	-1.3	1.0	5.0	3.9	4.5	3.2	11.9	1.5	1.4	4.7
Papua New Guinea	6.9	17.3	15.6	9.3	11.8	14.7	2.1	1.8	2.4	0.9	10.8	6.9	6.0	8.5
Samoa	15.3	-2.9	0.9	4.7	8.1	0.1	16.3	1.9	3.8	5.7	11.5	6.3	0.8	5.2
Solomon Islands <sup>c</sup>	8.8	9.6	7.1	7.7	9.3	10.0	7.1	7.2	11.2	7.6	17.3	7.1	0.9	6.7
Timor-Leste	...	...	...	...	...	...	...	1.5	4.2	8.9	7.6	0.4	9.2	15.4
Tonga	10.9	0.4	6.3	8.3	10.4	11.6	11.0	8.7	6.1	5.8	10.4	1.4	3.6	6.3
Tuvalu <sup>f</sup>	2.0	5.6	1.3	1.5	5.1	2.9	2.4	3.2	4.2	2.3	10.4	-0.3	-1.9	0.5
Vanuatu <sup>c</sup>	5.1	1.8	2.1	3.5	2.1	1.1	3.2	1.2	2.6	4.1	5.8	4.3	2.9	1.0
<b>Developed Member Economies</b>														
Australia	7.3	4.7	4.5	4.4	3.0	2.8	2.4	2.7	3.6	2.4	4.4	1.9	2.9	3.4
Japan	3.1	-0.1	-0.7	-0.8	-0.9	-0.3	0.0	-0.3	0.3	0.0	1.4	-1.4	-0.7	-0.3
New Zealand	6.1	3.8	2.6	2.6	2.7	1.8	2.3	3.0	3.4	2.4	4.0	2.1	2.3	4.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Unless otherwise indicated, data refer to the whole country.

b Data refer to urban areas only.

c Data refer to capital city.

d Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

e For 1990 and 1995, data refer to CPI for 27 cities; for 2000–2002, 43 cities; for 2003–2007, 45 cities; and for 2008 onward, 66 cities.

f Data prior to 1999 cover Funafuti only.

Source: Country sources.

## Prices

Table 3.2 Growth Rates of Food Consumer Price Index<sup>a</sup>  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	9.1	7.7	6.0	31.9	4.3	-9.1	13.9
Armenia	...	190.5	-2.2	4.2	1.2	6.1	9.9	0.7	3.0	6.0	10.0	-0.7	8.6	11.2
Azerbaijan	...	...	2.3	2.7	3.7	3.2	10.0	10.9	11.9	16.2	28.6	-1.5	7.2	10.4
Georgia	...	...	7.5	3.7	8.1	9.4	13.6	8.3	9.3	13.2	5.4	3.9	23.1	0.6
Kazakhstan	...	163.8	16.0	11.5	6.8	7.0	7.7	8.1	8.7	12.2	23.4	6.0	6.4	11.9
Kyrgyz Republic	...	40.1	18.5	5.7	0.2	2.8	3.2	5.4	7.5	12.6	29.1	2.1	6.8	21.9
Pakistan	4.5	16.5	2.2	3.6	2.5	2.8	6.0	12.5	6.9	10.3	17.7	23.7	12.9	18.0
Tajikistan	...	3008.1	66.3	13.7	17.0	10.2	4.6	8.3	13.9	25.5	13.0	2.3	13.4	10.3
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	18.9	27.9	28.0	5.4	-1.2	6.7	7.4	2.0	3.3	4.4	4.8	3.5
<b>East Asia</b>														
China, People's Rep. of	...	-6.8	1.7	2.7	-0.6	4.0	6.3	-6.4	-0.6	9.8	1.8	-11.9	6.5	4.3
Hong Kong, China	10.0	7.1	-2.2	-0.8	-2.1	-1.5	1.0	1.8	1.7	4.3	10.1	1.3	2.4	7.0
Korea, Rep. of	10.1	2.8	1.1	5.3	5.0	4.8	8.3	3.1	0.4	2.4	4.7	7.5	6.6	8.2
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	3.5	4.3	0.4	-0.9	-0.2	-0.1	4.2	7.2	-0.6	2.9	8.6	-0.4	0.6	2.3
<b>South Asia</b>														
Bangladesh	2.5	9.3	2.6	1.4	1.6	3.5	6.9	7.9	7.7	8.2	12.3	7.2	8.5	11.3
Bhutan <sup>b</sup>	...	...	...	1.5	2.0	...	2.1	5.7	5.0	8.1	11.9	9.0	8.8	10.2
India	12.4	10.9	1.6	2.9	2.4	3.8	2.2	4.2	7.6	8.4	12.3	15.2	9.8	6.3
Maldives	...	...	-10.5	10.2	5.9	-5.7	10.9	0.2	4.7	15.0	17.8	1.5	5.2	...
Nepal <sup>c</sup>	10.9	7.4	0.4	-2.3	3.7	4.4	3.3	4.0	3.1	6.5	9.5	20.1	14.0	17.5
Sri Lanka <sup>d</sup>	23.3	6.9	4.5	15.2	10.6	2.6	9.1	11.4	8.9	20.3	44.0	3.1	6.9	8.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>e</sup>	-0.4	2.6	-	0.5	0.3	-0.8	1.6	0.5	-0.3	2.5	4.1	2.3	1.0	3.5
Cambodia <sup>d</sup>	...	...	-3.4	-2.5	1.8	1.5	6.4	8.4	6.5	12.6	29.9	-0.5	4.4	7.3
Indonesia <sup>f</sup>	...	13.2	2.7	7.3	10.8	0.8	5.9	10.0	14.8	11.4	16.9	7.0	9.4	8.5
Lao PDR	...	...	...	6.7	9.6	15.2	10.4	7.7	9.4	8.1	11.2	2.3	9.0	8.5
Malaysia	4.2	4.9	1.9	0.7	0.7	1.3	2.2	3.6	3.4	3.0	8.8	4.1	2.4	4.8
Myanmar	...	...	-2.6	19.5	68.3	36.3	1.1	9.3	20.6	21.3	18.6	-0.4	7.2	3.9
Philippines	10.9	8.0	1.6	4.7	2.3	2.2	6.2	6.4	5.5	3.3	12.9	5.8	3.0	5.5
Singapore	0.8	2.3	0.6	0.5	0.0	0.6	2.0	1.3	1.6	2.9	7.7	2.3	1.4	3.1
Thailand	8.0	8.1	-1.1	0.8	0.4	3.7	4.5	4.9	4.6	4.1	11.6	4.4	5.4	8.0
Viet Nam	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>														
Cook Islands	3.8	-0.3	3.4	9.3	6.9	2.6	0.9	1.1	2.4	0.2	5.9	10.8	2.9	2.3
Fiji	8.2	0.7	-3.2	4.1	0.5	6.2	3.8	1.7	1.8	9.7	11.5	6.7	4.1	9.0
Kiribati <sup>d</sup>	...	...	0.7	6.1	3.4	2.8	0.0	-4.8	-2.6	4.8	12.8	14.6	1.0	4.7
Marshall Islands <sup>d</sup>	3.7	1.4	-0.8	0.6	...	...	4.2	0.3	2.3	1.6	11.9	10.1	-1.5	...
Micronesia, Fed. States of	...	...	1.1	-0.1	0.5	-1.1	3.6	3.4	2.0	2.4	8.5	18.1	2.4	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	-2.4	-1.4	0.7	7.2	-1.5	-1.3	5.5	17.3	9.2	1.8	4.8
Papua New Guinea	9.6	18.0	13.6	9.6	17.1	13.3	0.6	3.4	5.3	0.6	16.6	7.2	5.4	7.6
Samoa	20.2	-6.9	-0.1	5.1	11.6	-1.9	27.0	0.3	4.0	7.8	14.1	10.2	-1.7	7.0
Solomon Islands <sup>d</sup>	8.4	7.6	6.6	9.4	10.6	4.1	9.2	5.6	9.8	5.9	24.1	11.9	-2.6	3.9
Timor-Leste	...	...	...	...	...	...	...	0.4	3.7	12.6	9.2	-0.1	12.0	18.7
Tonga	...	...	0.4	11.8	16.8	9.6	9.1	6.0	3.0	7.4	7.7	7.8	3.0	6.6
Tuvalu <sup>g</sup>	-1.4	5.6	1.1	5.3	3.9	7.4	2.8	5.5	4.4	3.4	14.4	4.7	-5.9	0.8
Vanuatu <sup>d</sup>	5.1	3.8	2.0	2.0	1.0	0.0	3.9	0.5	3.5	3.8	11.4	3.9	5.2	1.0
<b>Developed Member Economies</b>														
Australia	4.4	3.9	2.4	6.6	3.6	3.7	2.4	2.4	7.8	2.5	4.7	3.7	1.6	4.8
Japan	4.0	-1.3	-1.9	-0.6	-0.8	-0.2	0.9	-0.9	0.5	0.3	2.6	0.2	-0.3	-0.4
New Zealand	7.4	1.3	1.4	6.1	3.2	0.2	0.8	1.5	2.7	3.8	7.9	5.7	1.3	5.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Coverage of food varies by country. Unless otherwise indicated, data refer to the whole country.

b Prior to third quarter of 2003, quarterly price indices were not calculated and therefore, year-on-year rate of change of the CPI cannot be computed.

c Data refer to urban areas only.

d Data refer to capital city.

e Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

f For 1990 and 1995, data refer to CPI for 27 cities; for 2000–2002, 43 cities; for 2003–2007, 45 cities; and for 2008 onward, 66 cities.

g Data prior to 1999 cover Funafuti only.

Sources: Country sources, CEIC for People's Republic of China; Royal Monetary Authority for Bhutan, Department of National Planning for Maldives.

**Table 3.3 Growth Rates of Wholesale/Producer Price Index (%)**

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	275.4	0.8	-0.4	2.5	8.9	21.7	7.7	0.9	0.6	2.2	7.1	22.6	9.1
Azerbaijan	...	...	...	3.3	-0.6	17.2	13.5	17.3	10.1	17.6	23.4	-19.4	30.5	33.5
Georgia	...	...	5.7	3.7	6.1	2.5	4.3	7.4	10.8	11.6	9.8	-5.5	11.3	12.8
Kazakhstan	...	139.8	38.0	0.3	0.3	9.3	16.7	23.7	18.4	12.4	36.8	-22.0	25.2	27.2
Kyrgyz Republic	...	21.8	32.0	9.1	5.3	5.6	8.8	4.9	15.3	11.8	26.4	12.0	22.9	21.8
Pakistan	7.3	16.0	1.8	6.2	2.1	5.6	7.9	6.7	10.2	6.9	16.4	18.9	13.9	21.2
Tajikistan	...	...	39.2	25.2	9.1	15.4	16.5	10.4	42.7	21.2	20.3	-3.4	27.2	15.5
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	60.9	42.2	48.0	29.9	29.6	25.6	30.2	14.1	9.1	24.7	15.6	19.6
<b>East Asia</b>														
China, People's Rep. of	4.1	14.9	2.8	-1.3	-2.2	2.3	6.1	4.9	3.0	3.1	6.9	-5.4	5.5	6.6
Hong Kong, China	...	2.8	0.2	-1.6	-2.7	-0.3	2.2	...	2.2	3.0	5.6	-1.7	6.0	8.3
Korea, Rep. of	4.2	4.7	2.0	-0.4	-0.3	2.2	6.1	2.1	0.9	1.4	8.6	-0.2	3.8	6.1
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	-0.6	7.4	1.8	-1.3	0.0	2.5	7.0	0.6	5.6	6.5	5.1	-8.7	5.5	4.3
<b>South Asia</b>														
Bangladesh <sup>a</sup>	8.5	4.6	-0.4	-1.5	0.2	5.3	3.7	3.4	8.9	...	...	...	...	...
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
India	10.3	8.0	7.2	3.6	3.4	5.5	6.5	4.5	6.6	4.7	8.1	3.8	9.6	8.9
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	1.4	4.9	3.8	4.1	7.3	8.9	9.0	9.1	12.8	12.6	9.9
Sri Lanka	22.2	8.8	1.7	11.7	10.7	3.1	12.5	11.5	11.7	24.4	24.9	-4.2	2.6	19.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	10.0	11.4	12.5	13.0	4.4	3.4	7.4	15.3	13.6	13.8	25.8	-0.1	4.9	7.4
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	0.7	4.7	3.6	0.2	-0.7	4.7	6.2	5.9	3.1	5.5	10.2	-7.3	5.6	9.0
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	...	...	5.8	7.8	5.0	5.0	8.4	11.4	8.4	3.1	11.9	-4.2	5.9	8.7
Singapore	1.7	0.1	10.1	-1.7	-3.1	2.0	5.2	9.6	5.0	0.3	7.5	-13.9	4.7	8.4
Thailand	...	...	3.8	2.5	1.7	4.0	6.7	9.2	7.0	3.3	12.4	-3.8	9.4	5.5
Viet Nam	...	...	...	...	...	2.2	7.7	4.5	4.2	6.9	21.8	7.4	25.2	18.4
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	6.0	3.6	7.2	3.1	0.2	0.5	4.0	6.0	8.0	2.4	8.3	-5.4	1.9	3.4
Japan	1.0	-0.8	0.1	-2.3	-2.1	-0.8	1.3	1.7	2.2	1.7	4.6	-5.3	-0.1	2.1
New Zealand	3.6	1.3	5.2	4.9	1.3	0.2	1.9	3.4	4.6	2.6	8.6	0.6	2.3	3.9

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a For agricultural and industrial products only.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## Prices

Table 3.4 **Growth Rates of GDP Deflator**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	9.8	8.5	11.6	4.9	19.1	2.0	-0.3	14.3	...
Armenia	...	...	-1.4	4.1	0.7	4.6	6.3	3.2	4.6	4.2	5.9	3.3	9.2	4.3
Azerbaijan	...	545.8	12.5	2.5	3.2	6.0	8.4	16.1	11.3	21.0	27.8	-18.8	13.6	17.8
Georgia	...	...	4.7	5.4	5.9	3.4	8.4	7.9	8.5	9.7	9.7	-2.0	8.5	9.2
Kazakhstan <sup>a</sup>	...	161.0	17.4	10.1	5.8	11.7	16.1	17.9	21.5	15.5	21.0	4.7	18.9	16.6
Kyrgyz Republic	...	42.0	27.2	7.3	2.0	4.0	5.1	7.1	9.4	14.9	22.2	4.0	10.0	17.3
Pakistan	6.5	13.9	2.7	7.9	2.5	4.4	7.8	7.0	10.6	7.7	16.2	20.0	11.9	18.8
Tajikistan	...	-96.3	22.7	31.0	18.8	27.0	17.5	9.5	21.5	27.5	28.5	12.0	12.4	18.9
Turkmenistan	...	706.4	21.3	31.2	28.5	27.2	18.3	7.0	12.3	9.3	41.0	22.7	6.2	...
Uzbekistan <sup>b</sup>	...	362.5	47.1	44.8	45.2	26.5	15.1	16.5	27.1	23.9	26.8	17.2	16.5	15.1
<b>East Asia</b>														
China, People's Rep. of	5.8	13.7	2.0	2.1	0.6	2.6	6.9	3.8	3.8	7.6	7.8	-0.6	6.7	7.6
Hong Kong, China	7.5	4.1	-3.6	-1.9	-3.5	-6.2	-3.5	-0.1	-0.3	2.9	1.5	-0.6	0.5	3.6
Korea, Rep. of	10.4	7.5	1.0	3.9	3.2	3.6	3.0	0.7	-0.1	2.1	2.9	3.4	3.6	1.7
Mongolia	...	...	9.0	8.4	6.8	9.8	17.2	20.4	22.0	11.6	21.4	1.8	20.0	9.8
Taipei, China	3.6	2.3	-0.2	-0.9	-0.4	-0.9	0.1	-1.3	-1.1	-0.5	-3.0	0.7	-1.5	-2.9
<b>South Asia</b>														
Bangladesh	6.3	7.4	1.9	1.6	3.2	4.5	4.2	5.1	5.2	6.8	8.8	6.5	6.5	7.5
Bhutan	12.0	8.0	3.7	6.6	4.1	3.7	2.4	6.0	5.4	3.1	5.7	4.8	5.6	...
India	10.7	9.1	3.5	3.0	3.8	3.6	5.6	4.2	6.4	5.8	8.7	6.0	8.5	8.0
Maldives	...	...	1.5	...	1.7	0.5	0.7	1.0	9.8	7.0	9.3	7.8	1.1	4.9
Nepal	10.9	6.0	4.2	2.7	3.9	3.1	4.2	6.1	7.4	7.3	5.6	16.0	14.4	11.0
Sri Lanka	22.2	8.4	6.7	13.0	8.2	5.1	8.8	10.4	11.3	14.0	16.3	5.9	7.3	7.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>c</sup>	8.4	2.9	29.0	-5.6	0.4	6.1	15.9	18.8	10.0	1.1	12.7	-22.1	5.3	19.4
Cambodia	145.6	11.7	-3.1	2.7	0.7	1.8	4.8	6.1	4.6	6.5	12.3	2.5	3.1	3.4
Indonesia	7.7	9.9	9.6	14.3	5.9	5.5	8.6	14.3	14.1	11.3	18.1	8.3	8.0	8.5
Lao PDR	33.1	20.6	21.8	9.9	11.4	13.3	10.4	7.8	14.4	4.3	6.0	-4.3	10.0	...
Malaysia	3.8	3.6	4.9	-1.6	3.1	3.3	6.0	4.6	4.0	4.8	10.1	-5.8	4.4	5.1
Myanmar	18.5	19.6	2.5	24.8	41.5	20.5	3.6	19.2	21.3	23.6	13.6	4.9	8.2	...
Philippines	13.0	7.6	5.7	5.5	4.2	3.2	5.5	5.8	4.9	3.1	7.5	2.8	4.2	4.1
Singapore	4.4	2.8	3.6	-2.2	-0.9	-1.5	4.3	2.1	1.8	6.2	-1.3	1.5	0.1	0.6
Thailand	...	5.7	1.3	1.9	1.7	2.2	3.6	4.9	5.1	2.5	5.1	0.2	5.0	4.2
Viet Nam	42.1	17.0	3.4	1.9	4.0	6.7	8.2	8.2	7.3	8.2	22.1	6.0	11.9	20.9
<b>The Pacific</b>														
Cook Islands	3.8	0.6	2.2	9.0	1.7	4.9	0.1	-2.6	6.4	7.3	11.0	3.2	1.1	...
Fiji	8.1	...	-2.4	3.1	2.4	5.2	5.7	7.1	3.1	3.1	4.4	1.0	7.0	7.9
Kiribati	-4.7	2.1	0.3	8.1	4.2	1.1	-4.3	1.6	0.7	4.8	8.2	0.9	0.5	...
Marshall Islands	-2.0	11.6	-3.0	-1.5	5.6	1.6	3.4	2.2	2.3	1.4	3.9	0.7	2.2	1.5
Micronesia, Fed. States of	5.0	1.4	1.1	1.2	0.1	-0.3	1.1	2.2	1.6	3.4	4.8	5.5	3.1	5.7
Nauru	...	1.8	5.6	5.4	5.9	5.6	...	1.6	23.0	-8.3	-8.3	71.5	...	...
Palau	...	2.8	...	-1.7	2.0	0.4	5.0	4.0	8.3	1.8	7.6	0.2	1.6	0.2
Papua New Guinea	7.4	16.0	13.1	6.8	11.9	6.9	1.1	7.9	9.4	3.9	7.8	-2.5	8.7	3.8
Samoa	12.6	-6.9	2.6	1.4	3.7	1.6	7.0	4.7	6.0	7.7	3.8	0.9	2.0	3.0
Solomon Islands	...	4.2	6.9	7.3	9.4	10.1	6.9	7.3	11.2	7.7	17.0	13.0	10.1	6.2
Timor-Leste <sup>d</sup>	...	3.1	3.0	-0.2	0.3	4.7	...	10.5	-5.2	5.2	37.0	-20.0	27.7	...
Tonga	7.8	-1.2	7.7	3.2	8.8	9.3	5.5	5.6	17.7	5.8	8.0	-2.1	4.2	5.2
Tuvalu	...	...	...	5.9	3.3	2.3	5.6	1.5	3.2	1.1	3.0	-1.8	4.2	2.7
Vanuatu	8.2	2.7	2.2	3.8	1.7	1.2	1.6	0.4	4.8	4.7	5.8	0.4	2.7	4.2
<b>Developed Member Economies</b>														
Australia	9.7	2.1	2.6	4.8	2.8	2.8	3.0	3.8	4.8	4.9	4.6	5.1	0.9	6.1
Japan	2.4	-0.7	-1.2	-1.2	-1.6	-1.7	-1.4	-1.3	-1.1	-0.9	-1.3	-0.5	-2.1	-2.0
New Zealand	2.5	2.5	3.4	3.8	0.3	2.9	3.5	2.3	3.4	4.7	2.7	0.6	4.6	...

... = Data not available at cutoff date.

a Growth rates beginning 1995–2011 were estimated using national accounts data from Agency on Statistics of the Republic of Kazakhstan.

b Growth rates beginning 1995–2011 were estimated using national accounts data from State Committee of the Republic of Uzbekistan on Statistics.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

d GDP estimates beginning 2002 exclude value added of activities of the United Nations.

Sources: Country sources, UNSD national accounts database for Turkmenistan.

Table 3.5 **Growth Rates of Money Supply (M2)**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	40.6	...	...	...	...	31.5	38.3	44.6	55.5	31.0	35.9	39.3	23.1	11.1
Armenia	...	67.8	36.5	4.3	23.1	20.1	22.3	27.7	32.6	42.9	2.3	15.1	11.8	23.7
Azerbaijan	...	24.0	86.7	-12.1	14.5	29.6	47.8	22.3	86.8	71.4	44.0	-0.3	24.3	32.1
Georgia <sup>a</sup>	...	...	39.6	23.2	18.8	23.1	40.0	27.9	42.7	46.4	7.9	7.7	30.1	14.5
Kazakhstan <sup>a</sup>	...	109.0	45.0	45.1	32.8	27.0	69.7	25.2	78.1	25.9	35.4	19.5	13.3	15.0
Kyrgyz Republic	...	78.2	12.1	11.3	34.1	33.5	32.0	9.9	51.6	33.3	12.6	17.9	21.1	14.9
Pakistan	14.4	13.8	12.1	11.7	16.8	17.5	20.3	17.5	14.5	19.7	5.5	14.8	15.1	12.0
Tajikistan	...	...	57.1	67.8	18.6	45.1	93.6	36.3	62.8	77.9	-7.6	30.8	12.6	42.0
Turkmenistan <sup>a</sup>	...	448.0	94.6	16.7	1.5	33.4	13.6	5.6	10.7	96.4	-7.6	40.1	...	...
Uzbekistan	...	151.9	37.1	54.3	29.7	27.1	47.8	54.2	36.8	46.1	32.4	...	...	...
<b>East Asia</b>														
China, People's Rep. of	34.2	32.3	12.3	17.6	16.9	19.6	14.9	16.5	16.7	16.7	17.8	27.6	19.7	17.3
Hong Kong, China	22.4	14.6	7.8	-2.7	-0.9	8.4	9.3	5.1	15.4	20.8	2.6	5.3	8.1	12.9
Korea, Rep. of	25.3	23.3	5.2	8.1	14.0	3.0	6.3	7.0	12.5	10.8	12.0	9.9	6.0	5.5
Mongolia	10.8	32.9	17.6	27.9	42.0	49.6	20.4	34.6	34.8	56.3	-5.5	26.9	62.5	37.0
Taipei, China	11.0	9.4	6.5	2.6	4.3	5.7	7.2	6.6	5.2	0.8	7.2	5.8	5.4	4.8
<b>South Asia</b>														
Bangladesh	16.9	16.0	18.6	16.6	13.1	15.6	13.8	16.7	19.3	17.1	17.6	19.2	22.4	21.3
Bhutan	10.5	36.0	16.1	7.6	28.5	-0.2	19.9	11.9	32.9	12.2	13.4	39.7	16.5	4.1
India <sup>a</sup>	15.1	13.6	16.8	14.1	14.7	16.7	12.1	17.0	21.7	21.4	19.3	16.9	16.1	12.9
Maldives	18.6	15.4	4.2	7.8	21.6	17.2	31.4	10.6	18.9	24.1	21.9	14.4	14.6	20.0
Nepal	18.6	16.1	21.8	15.2	4.4	9.8	12.8	8.3	15.6	13.8	25.3	27.3	14.1	9.5
Sri Lanka	19.1	19.2	12.9	13.6	13.4	15.3	19.6	19.1	17.8	-4.7	11.7	19.9	18.0	20.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	8.2	6.7	25.9	-7.1	-1.4	12.9	27.0	6.8	-3.9	4.6	21.6	-16.8	9.4	14.5
Cambodia	240.9	44.3	26.9	20.4	31.1	15.3	30.0	16.1	38.2	62.9	4.8	36.8	20.0	21.5
Indonesia	41.8	28.0	14.3	14.3	4.7	8.1	8.2	16.3	14.9	19.3	14.9	13.0	15.4	16.4
Lao PDR	7.8	16.4	45.9	20.1	27.0	19.2	22.3	8.2	30.1	38.7	18.3	31.3	38.9	25.2
Malaysia <sup>c</sup>	12.8	14.9	5.1	2.9	6.9	9.7	12.3	8.3	13.0	9.5	11.9	9.2	7.0	14.4
Myanmar	41.4	40.5	42.2	38.1	35.6	0.7	32.1	27.3	27.3	29.9	14.9	30.6	42.5	30.5
Philippines <sup>d</sup>	18.4	25.2	4.8	6.9	9.6	4.2	10.0	9.8	22.1	10.7	15.4	7.7	10.7	6.5
Singapore	20.0	8.5	-2.0	5.9	-0.3	8.1	6.2	6.2	19.4	13.4	12.0	11.3	8.6	10.0
Thailand	26.7	17.0	3.7	4.2	2.6	4.9	5.8	6.1	8.2	6.3	9.2	6.8	10.9	15.2
Viet Nam	53.1	22.6	56.2	25.5	17.6	24.9	29.5	29.7	33.6	46.1	20.3	29.0	33.3	12.1
<b>The Pacific</b>														
Cook Islands	21.9	...	4.8	14.4	3.2	9.9	9.6	-5.2	22.4	-5.8	4.0	65.9	-2.3	-13.4
Fiji	24.3	4.7	-2.1	-3.1	7.9	25.1	10.4	15.0	19.8	10.4	-6.9	7.4	3.9	16.5
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	18.4	-1.7	18.0	6.9	5.9	1.4	2.9	11.2	4.2	7.1	9.5	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea <sup>a</sup>	4.5	10.7	5.4	9.6	7.3	-4.4	14.8	29.5	38.9	27.8	7.8	21.9	10.3	17.3
Samoa	19.2	21.8	16.4	6.1	10.0	14.1	8.3	19.1	10.4	11.0	5.8	9.1	7.1	-4.0
Solomon Islands <sup>a</sup>	10.8	9.9	0.4	-9.5	6.4	23.8	17.7	46.1	26.4	21.7	8.0	16.8	13.3	25.8
Timor-Leste <sup>d</sup>	...	...	...	155.5	-14.5	40.9	7.0	18.3	28.2	43.9	34.1	39.3	9.9	9.3
Tonga	9.3	17.0	8.3	26.6	7.8	13.4	18.6	12.1	14.4	14.0	8.3	-1.9	5.1	2.7
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	11.3	11.5	5.5	5.6	-1.7	-0.8	9.8	11.6	7.0	16.1	13.2	0.5	-6.0	1.3
<b>Developed Member Economies</b>														
Australia <sup>a</sup>	12.3	7.5	7.3	8.5	6.1	13.6	10.2	8.9	10.1	16.3	19.1	13.7	4.5	8.9
Japan	7.4	3.2	1.9	3.3	1.8	...	...	...	...	...	...	...	...	...
New Zealand <sup>a</sup>	0.0	14.5	6.5	11.4	12.5	5.9	6.3	10.9	14.7	8.2	5.7	1.0	3.3	6.0

... = Data not available at cutoff date.

a Refers to M3.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Data for 1990 refers to M2, otherwise M3.

d Data for 2001 is not comparable with those of the other years since it was calculated using the pre-2001 monetary survey concept.

Sources: Country sources, EBRD for Turkmenistan.



## Money and Finance

Table 3.6 **Money Supply (M2)**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	216.8	...	...	...	11.0	12.2	15.2	17.9	24.3	23.1	30.0	35.8	37.3	...
Armenia	...	7.9	14.7	13.4	14.3	14.4	15.0	16.3	18.2	22.0	19.8	25.9	26.0	29.5
Azerbaijan	...	12.2	16.6	12.9	13.0	14.3	17.7	14.7	18.4	20.8	21.2	23.8	24.8	27.8
Georgia <sup>a</sup>	...	4.8	10.1	11.2	11.9	12.8	15.6	16.9	20.3	24.1	23.2	26.5	29.9	29.3
Kazakhstan <sup>a</sup>	...	11.4	15.3	17.7	20.3	21.1	28.1	27.2	36.0	36.0	39.0	44.0	38.9	35.7
Kyrgyz Republic	...	17.1	11.3	11.1	14.6	17.5	20.5	21.1	28.4	30.3	25.8	28.4	31.4	29.1
Pakistan	40.1	43.6	38.6	39.2	43.3	46.5	48.3	49.3	48.1	50.6	45.2	41.8	41.2	37.9
Tajikistan	...	20.7	8.2	9.6	8.7	8.9	13.3	15.5	19.5	25.3	16.9	19.0	17.9	20.8
Turkmenistan <sup>a</sup>	...	18.8	19.4	16.1	13.0	13.2	12.3	10.2	9.4	15.0	7.7	10.1	...	...
Uzbekistan	...	17.7	12.2	12.4	10.6	10.3	12.2	15.1	15.2	16.3	18.0	...	...	...
<b>East Asia</b>														
China, People's Rep. of	81.9	99.9	135.7	144.4	153.7	162.9	158.9	160.1	159.8	151.8	151.3	177.8	180.8	180.6
Hong Kong, China	202.0	204.6	277.0	273.2	275.4	308.8	322.5	316.7	342.6	378.0	373.8	406.9	409.7	425.5
Korea, Rep. of	76.1	90.5	117.3	117.4	121.0	117.1	115.5	118.1	126.5	130.6	138.9	147.1	141.6	141.6
Mongolia	53.8	18.5	25.4	29.7	38.0	42.4	39.4	41.0	38.1	48.4	34.6	43.7	55.6	59.2
Taipei, China	140.0	176.0	185.5	195.2	194.1	199.7	201.4	207.9	209.6	200.5	219.9	235.2	227.4	235.9
<b>South Asia</b>														
Bangladesh	22.2	27.7	31.5	34.4	36.1	37.9	39.0	40.9	43.5	44.8	45.6	48.2	52.4	55.9
Bhutan	20.6	33.1	50.8	47.2	52.5	47.1	53.1	52.3	60.7	55.9	57.4	71.6	70.5	73.4
India <sup>a</sup>	46.7	50.3	62.5	65.7	70.0	72.8	69.4	73.6	77.1	80.6	85.2	86.8	84.8	82.9
Maldives	...	31.2	41.1	33.1	37.3	38.1	44.2	53.0	48.0	50.4	50.0	55.7	59.8	63.7
Nepal	28.4	34.4	45.7	48.6	48.8	50.0	51.7	51.0	53.1	54.3	60.7	63.8	60.3	57.6
Sri Lanka	28.6	34.5	37.6	38.3	38.0	39.4	41.1	41.7	41.0	32.1	29.1	31.8	32.4	33.5
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	70.8	120.9	93.6	89.7	84.8	87.7	95.6	85.7	71.7	74.1	81.6	88.6	89.7	84.2
Cambodia	10.3	7.7	13.0	14.1	17.2	18.0	20.2	19.5	23.3	32.3	28.3	37.7	41.4	45.4
Indonesia	39.5	49.1	53.2	51.3	48.5	47.5	45.0	43.4	41.4	41.8	38.3	38.2	38.4	38.7
Lao PDR	7.2	13.5	17.4	18.2	19.4	19.2	19.9	18.7	19.6	24.2	25.0	31.9	37.3	...
Malaysia <sup>a</sup>	...	122.2	128.6	133.8	131.6	132.1	131.0	123.8	127.4	125.2	121.0	142.7	136.6	141.0
Myanmar	28.8	30.7	32.7	32.5	27.8	20.4	22.9	21.6	20.0	18.8	17.2	19.4	23.1	...
Philippines	27.6	39.6	39.7	43.2	43.8	42.1	41.2	40.8	45.1	45.4	46.8	48.5	47.8	47.1
Singapore	87.9	82.6	105.1	115.1	111.1	116.5	108.7	105.3	113.6	111.2	124.0	137.5	130.0	135.7
Thailand	67.7	78.6	99.5	98.3	98.3	112.0	107.6	104.5	102.5	100.8	103.0	110.9	109.0	120.3
Viet Nam	27.1	23.0	50.5	58.1	61.4	67.0	74.4	82.3	94.7	117.9	109.2	126.2	140.8	123.3
<b>The Pacific</b>														
Cook Islands	47.9	34.2	42.0	42.3	41.6	41.7	44.7	44.0	48.2	42.4	41.2	68.7	66.2	...
Fiji	50.9	55.0	42.4	39.0	39.5	45.4	46.6	49.4	56.1	60.7	54.1	59.0	56.8	58.9
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	64.7	61.3	66.8	70.2	71.9	69.5	68.6	73.0	74.7	80.5	82.0	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea <sup>a</sup>	35.1	29.7	31.2	32.0	30.1	25.8	29.1	33.6	41.7	47.8	44.9	52.9	49.4	51.3
Samoa	46.8	33.9	38.2	37.0	38.0	40.4	39.1	42.3	43.8	42.6	45.1	49.5	51.0	46.8
Solomon Islands <sup>a</sup>	29.8	30.5	31.7	29.0	29.0	30.6	31.2	40.5	43.4	44.3	38.1	39.9	39.4	46.5
Timor-Leste <sup>c</sup>	...	...	6.3	13.9	15.4	20.7	6.1	4.2	3.6	5.0	4.4	8.2	7.1	...
Tonga	26.5	24.7	29.2	34.7	33.2	33.8	37.6	39.0	38.5	43.3	42.9	41.7	41.0	38.2
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	104.1	111.5	87.3	91.8	92.6	87.5	90.7	95.8	91.3	94.8	95.4	95.4	85.5	79.6
<b>Developed Member Economies</b>														
Australia <sup>a</sup>	52.9	57.3	65.1	66.2	65.6	70.3	71.9	73.2	74.6	80.3	88.1	94.0	95.1	95.6
Japan	114.0	111.4	127.5	132.8	137.0	...	...	...	...	...	...	...	...	...
New Zealand <sup>a</sup>	32.3	82.3	89.5	92.8	99.2	98.3	97.6	102.5	111.8	111.6	117.1	116.7	115.7	...

... = Data not available at cutoff date.

a Refers to M3.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c GDP estimates refer to non-oil GDP. Before 2002, estimates include the value-added activities of United Nations activities.

Sources: Country sources, EBRD for Turkmenistan.

**Table 3.7 Interest Rate on Savings Deposits**  
(% per annum, period averages)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pakistan	6.94	7.58	5.90	4.98	3.77	1.40	0.94	1.71	1.92	2.07	4.99	4.95	5.02	5.14
Tajikistan	...	...	...	...	5.28	6.62	3.67	3.63	2.22	2.18	3.36	3.26	3.83	2.06
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	2.58	3.15	0.99	0.99	0.74	0.72	0.72	0.72	0.72	0.76	0.66	0.36	0.36	0.47
Hong Kong, China	5.90	4.20	4.50	2.20	0.14	0.03	0.02	0.97	2.50	2.10	0.14	0.01	0.01	0.01
Korea, Rep. of	5.00	3.00	7.08	5.46	4.71	4.15	3.75	3.57	4.36	5.01	5.67	3.23	3.18	3.69
Mongolia	3.00	27.30	7.20	5.40	5.90	6.80	7.60	7.80	8.00	8.10	2.40	2.60	3.20	2.81
Taipei, China	4.25	3.50	3.50	3.04	1.53	0.63	0.55	0.55	0.55	0.55	0.54	0.24	0.24	0.30
<b>South Asia</b>														
Bangladesh	9.50	5.36	5.81	5.24	4.60	4.11	4.24	4.19	5.24	5.20	5.20	5.11	4.88	5.03
Bhutan	5.00	5.00	6.00	6.00	5.50	5.00	4.50	4.50	4.50	4.75	4.75	4.75	4.75	4.75
India	5.00	4.50	4.00	4.00	4.00	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	4.00
Maldives	3.25	5.50	5.50	5.50	4.00	3.50	2.25	2.25	2.25	2.25	2.13	2.10	2.10	1.88
Nepal	9.00	7.00	5.25	5.00	4.38	4.25	3.50	3.38	3.50	3.50	4.25	4.75	7.00	7.00
Sri Lanka	14.00	12.00	8.40	8.40	6.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	1.13	1.04	1.01	1.04	1.17	0.88	0.70	0.47	0.40
Cambodia	...	7.25	6.13	3.00	2.41	2.19	2.13	2.08	1.83	1.90	2.05	1.21	1.15	1.19
Indonesia	15.00	...	8.86	9.19	8.96	5.14	4.47	4.32	4.75	3.48	3.33	3.00	3.92	2.33
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	3.43	3.70	2.72	2.28	2.12	1.86	1.58	1.41	1.48	1.44	1.40	0.87	1.00	1.15
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	10.90	8.00	7.40	7.50	4.20	4.20	4.26	3.80	3.50	2.20	2.22	2.07	1.60	1.62
Singapore	3.83	2.72	1.28	0.77	0.44	0.24	0.23	0.30	0.25	0.25	0.22	0.15	0.13	0.11
Thailand	11.00	5.00	2.50	1.75	1.50	0.75	0.75	1.88	2.50	0.75	0.75	0.50	0.50	0.88
Viet Nam	2.40	...	0.20	0.20	2.40	2.40	2.40	3.00	3.00	3.06	3.68	2.85	3.00	3.20
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	5.25	4.00	3.88	3.88	2.38	2.13	1.88	1.80	1.00	0.80	1.60	2.20	1.00	0.40
Samoa	5.90	3.00	3.00	3.00	2.75	2.75	2.75	2.75	5.83	2.75	2.75	1.75	0.88	1.00
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	0.20	0.75	0.79	0.75	0.65	0.74	0.75	0.75	0.75	0.75
Tonga	6.25	4.30	3.24	3.13	3.13	3.15	3.22	3.25	3.21	3.20	3.20	1.84	1.53	1.61
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	...	...	...	...	...	...	5.10	5.40	5.60	6.05	7.20	3.20	4.45	4.75
Japan	...	0.91	0.09	0.05	0.02	0.01	0.01	0.01	0.06	0.21	0.21	0.06	0.04	0.03
New Zealand	...	...	...	...	...	...	...	...	...	...	...	...	...	...

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## Money and Finance

Table 3.8 **Interest Rate on Time Deposits of 12 Months**  
(% per annum, period averages)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia <sup>a</sup>	...	...	21.86	17.72	11.94	7.83	5.29	6.37	5.95	7.29	9.51	9.91	8.80	9.08
Azerbaijan	...	...	10.40	8.60	9.40	8.54	8.53	9.38	10.50	12.10	12.21	12.19	10.96	10.40
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan <sup>b</sup>	...	...	8.00	6.79	9.49	9.87	10.68	10.29	10.29	10.53	11.57	10.68	9.80	8.77
Kyrgyz Republic <sup>c</sup>	...	45.40	28.07	26.58	17.55	13.06	9.58	9.78	9.88	8.91	8.79	10.75	11.47	12.30
Pakistan	9.38	10.93	8.60	8.96	6.18	2.70	2.84	5.83	6.01	6.85	8.38	8.18	8.28	8.82
Tajikistan <sup>d</sup>	...	...	...	...	14.84	18.24	17.81	20.16	20.84	17.81	18.45	19.36	17.78	16.15
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	9.80	10.98	2.25	2.25	2.00	1.98	2.05	2.25	2.36	3.29	3.80	2.25	2.33	3.29
Hong Kong, China	8.20	6.30	5.40	2.50	0.74	0.12	0.26	1.73	3.02	2.80	0.97	0.31	0.16	0.15
Korea, Rep. of	10.00	8.10	7.94	5.79	4.95	4.25	3.87	3.72	4.50	5.17	5.87	3.48	3.86	4.15
Mongolia	4.00	56.85	13.80	13.20	13.20	14.00	14.10	12.60	13.50	13.40	13.60	12.90	10.70	10.54
Taipei, China	9.50	7.00	4.98	3.76	2.17	1.47	1.43	1.77	2.10	2.40	2.50	0.82	1.03	1.30
<b>South Asia</b>														
Bangladesh	12.13	6.31	8.97	8.92	8.50	8.81	8.20	8.31	10.32	10.70	10.86	10.93	8.70	10.48
Bhutan <sup>e</sup>	8.00	9.00	9.50	9.50	9.00	6.75	6.00	6.50	6.50	6.75	6.75	6.75	6.75	6.75
India	9.00	12.50	7.10	7.10	5.75	5.00	4.98	5.32	8.55	8.63	8.25	6.75	5.91	8.95
Maldives <sup>b</sup>	...	6.00	6.50	6.50	5.50	5.25	4.50	4.50	4.50	4.50	4.10	4.50	4.50	4.56
Nepal	11.50	8.00	6.88	6.13	5.25	5.00	4.25	3.63	3.63	3.63	4.25	6.10	8.13	8.13
Sri Lanka	16.00	16.00	15.00	13.00	10.00	7.00	8.00	9.00	11.00	15.00	15.00	9.50	8.50	8.50
<b>Southeast Asia</b>														
Brunei Darussalam <sup>f</sup>	...	...	...	...	...	1.69	1.62	1.63	1.14	...	...	...	...	...
Cambodia	...	...	7.20	8.33	7.20	7.00	6.60	6.83	6.40	7.05	7.65	6.52	6.59	6.16
Indonesia	18.53	16.28	12.17	15.48	15.28	10.39	7.07	10.95	11.63	8.24	10.43	9.55	7.88	7.06
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	7.21	6.89	4.24	4.00	4.00	3.70	3.70	3.70	3.73	3.70	3.50	2.50	2.97	3.22
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines <sup>g</sup>	19.70	10.70	10.50	10.80	9.20	8.00	8.18	6.00	5.01	3.06	3.96	2.50	2.07	2.03
Singapore	5.48	4.01	2.42	1.53	1.32	0.70	0.72	0.86	0.88	0.83	0.70	0.53	0.45	0.32
Thailand	13.75	10.62	3.50	2.88	2.00	1.00	1.00	3.00	4.50	2.32	1.88	0.83	1.55	2.85
Viet Nam	...	12.00	6.24	6.84	7.80	7.20	7.56	8.40	8.40	8.80	13.46	10.37	11.50	13.00
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	10.50	8.13	9.38	8.63	5.88	9.00	9.00	1.30	1.80	1.30	0.80	2.10	4.80	5.19
Samoa	9.20	7.50	7.35	7.30	6.38	6.38	6.38	6.38	4.87	7.25	5.13	2.88	2.25	2.25
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	1.26	1.28	1.28	1.29	1.28	1.33	1.30	1.33	1.36
Tonga <sup>h</sup>	8.00	5.40	5.95	5.93	5.97	5.97	6.25	6.30	7.20	7.08	6.90	5.90	4.17	4.17
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	14.45	7.10	5.90	4.35	4.35	3.55	4.75	4.55	5.40	5.90	7.60	3.55	6.00	6.00
Japan <sup>i</sup>	...	1.16	0.24	0.13	0.07	0.05	0.04	0.03	0.16	0.38	0.41	0.26	0.10	0.07
New Zealand <sup>a</sup>	11.50	8.00	6.49	4.60	5.58	5.22	6.28	6.82	7.23	8.37	4.81	4.24	4.63	4.05

... = Data not available at cutoff date.

a Figures are derived simple averages of monthly rates for time deposits of 6 months.

b For time deposits of over 12 months.

c From 1996, data refer to interest rates of commercial banks in national currency for 6–12 months.

d Figures are derived simple averages of monthly rates for time deposits of 6 months to 1 year.

e For fixed deposits of 1 year to less than 3 years.

f Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

g Refers to rates charged on interest-bearing deposits with maturities of over 1 year.

h Beginning 1996, figures refer to weighted averages.

i Refers to time deposits from 12 months to less than 2 years. It is computed as the arithmetic average of the monthly figures.

Sources: Country sources; for the People's Republic of China, CEIC data.

**Table 3.9 Lending Interest Rate**  
(% per annum, period averages)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	17.97	18.14	14.92	15.00	15.69	15.15
Armenia	...	111.86	31.57	26.69	21.14	20.83	18.63	17.98	16.53	17.52	17.05	18.76	19.20	17.75
Azerbaijan	...	...	19.66	19.71	17.37	15.46	15.72	17.03	17.86	19.13	19.76	20.03	20.70	18.99
Georgia	...	...	32.75	27.25	31.83	32.27	31.23	21.63	18.75	20.41	21.24	25.52	24.21	25.87
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	...	...	51.90	37.33	24.81	19.13	29.27	26.60	23.20	25.32	19.86	23.03	31.54	40.21
Pakistan	...	...	...	...	...	...	7.26	9.07	10.99	11.77	12.94	14.54	14.04	14.42
Tajikistan	...	...	25.59	21.05	14.40	16.67	20.30	23.27	14.40	22.67	23.67	22.60	24.19	24.84
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	9.36	12.06	5.85	5.85	5.31	5.31	5.58	5.58	6.12	7.47	5.31	5.31	5.81	6.56
Hong Kong, China	10.00	8.75	9.50	5.13	5.00	5.00	5.00	7.75	7.75	6.75	5.00	5.00	5.00	5.00
Korea, Rep. of	10.00	9.00	8.55	7.71	6.77	6.24	5.90	5.59	5.99	6.55	7.17	5.65	5.51	5.76
Mongolia	...	134.37	36.95	37.35	35.52	31.91	31.47	30.57	26.93	21.83	20.58	21.67	20.07	16.61
Taipei, China <sup>a</sup>	10.05	7.67	7.71	7.38	7.10	3.43	3.52	3.85	4.12	4.31	4.21	2.56	2.68	2.88
<b>South Asia</b>														
Bangladesh	16.00	14.00	15.50	15.83	16.00	16.00	14.75	14.00	15.33	16.00	16.38	14.60	13.00	13.25
Bhutan	15.00	16.00	16.00	15.75	15.25	15.00	15.00	14.00	14.00	14.00	...	...	...	...
India	16.50	15.46	12.29	12.08	11.92	11.46	10.92	10.75	11.19	13.02	13.31	12.19	8.33	10.17
Maldives	...	...	13.00	13.00	13.54	14.00	13.00	13.00	13.00	13.00	13.00	13.00	10.38	10.20
Nepal	14.42	...	9.46	7.67	6.77	7.42	8.50	8.13	8.00	8.00	8.00	8.00	8.00	...
Sri Lanka	13.00	18.04	16.16	19.39	13.17	10.34	9.47	10.76	12.85	17.08	18.89	15.67	10.22	9.41
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	...	...	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Cambodia	...	18.70	17.34	16.50	16.23	18.47	17.62	17.33	16.40	16.18	16.01	15.81	...	...
Indonesia	20.83	18.85	18.46	18.55	18.95	16.94	14.12	14.05	15.98	13.86	13.60	14.50	13.25	12.40
Lao PDR	...	25.67	32.00	26.17	29.33	30.50	29.25	26.83	30.00	28.50	24.00	24.78	22.61	...
Malaysia	8.79	8.73	7.67	7.13	6.53	6.30	6.05	5.95	6.49	6.41	6.08	5.08	5.02	4.92
Myanmar	8.00	16.50	15.25	15.00	15.00	15.00	15.00	15.00	16.08	17.00	17.00	17.00	17.00	16.33
Philippines	24.12	14.68	10.91	12.40	9.14	9.47	10.08	10.18	9.78	8.69	8.75	8.57	7.67	6.66
Singapore	7.36	6.37	5.83	5.65	5.35	5.31	5.30	5.30	5.31	5.33	5.38	5.38	5.38	5.38
Thailand	14.42	13.25	7.83	7.25	6.88	5.94	5.50	5.79	7.35	7.05	7.04	5.96	5.94	6.91
Viet Nam	...	...	10.55	9.42	9.06	9.48	9.72	11.03	11.18	11.18	15.78	10.07	13.14	16.95
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	11.24	8.40	8.34	8.05	7.60	7.17	6.78	7.35	9.01	7.97	7.85	7.49	7.47
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	15.00	15.33	15.33	15.28	15.00	15.38	16.38	15.62	14.03	14.38	15.38	15.13	14.35
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	15.52	13.14	17.54	16.21	13.89	13.36	13.25	11.47	10.57	9.78	9.20	10.09	10.45	10.81
Samoa	...	...	...	...	11.45	11.28	11.23	11.43	11.72	12.65	12.66	12.08	10.72	9.96
Solomon Islands	18.00	16.17	14.58	14.55	14.62	14.70	14.29	14.12	13.92	14.12	14.44	15.26	14.43	13.17
Timor-Leste	...	...	...	...	...	16.66	15.54	16.65	16.55	15.05	13.11	11.17	11.03	11.04
Tonga	13.50	10.47	11.34	11.34	11.40	11.34	11.59	11.38	11.97	12.16	12.46	12.47	11.54	11.37
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	17.33	10.50	9.85	8.81	7.41	5.90	7.61	7.47	8.25	8.16	5.29	5.50	...	...
<b>Developed Member Economies</b>														
Australia	17.90	10.70	9.27	8.66	8.16	8.41	8.85	9.06	9.41	8.20	8.91	6.02	7.28	7.74
Japan	6.95	3.51	2.07	1.97	1.86	1.82	1.77	1.68	1.66	1.88	1.91	1.72	1.60	1.50
New Zealand	...	...	7.81	7.60	7.18	7.00	7.10	7.76	8.19	8.61	8.94	6.66	6.26	6.11

... = Data not available at cutoff date.

a Refers to base lending rates but figures before 2003 are prime lending rates.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: International Financial Statistics (IMF 2012); for Taipei,China: economy sources.

## Money and Finance

Table 3.10 Yield on Short-Term Treasury Bills<sup>a</sup>  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	37.810	24.403	20.591	14.750	11.912	5.271	4.050	4.865	6.089	7.688	9.420	10.586	9.526
Azerbaijan	...	...	16.733	16.510	14.119	7.998	4.622	7.515	10.038	10.639	10.478	3.307	1.829	2.282
Georgia	...	...	...	29.928	43.419	44.263	19.159	...	...	...	...	5.980	9.554	9.684
Kazakhstan	...	48.980	6.590	5.280	5.200	5.860	3.280	3.280	3.280	7.010	7.000	7.000	7.000	7.000
Kyrgyz Republic	...	34.903	32.259	19.078	10.154	7.208	4.944	4.401	4.752	4.901	13.163	10.566	4.588	8.323
Pakistan <sup>b</sup>	...	12.486	8.375	10.710	6.078	1.865	2.489	7.181	8.540	8.989	11.367	12.519	12.547	13.116
Tajikistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of <sup>c</sup>	...	...	2.601	2.521	2.152	2.618	2.793	1.858	2.536	3.512	4.033	1.586	2.641	5.139
Hong Kong, China	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Korea, Rep. of <sup>d</sup>	...	14.054	7.078	5.318	4.805	4.306	3.788	3.649	4.476	5.161	5.488	2.628	2.672	3.438
Mongolia	...	...	...	...	...	...	10.393	13.730	6.725	6.820	...	...	...	...
Taipei, China	6.530	4.990	...	...	3.300	2.879	3.380	2.862	2.663	3.449	4.296	1.706	2.663	5.285
<b>South Asia</b>														
Bangladesh	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhutan <sup>e</sup>	...	8.000	6.900	3.500	3.500	3.500	3.500	3.500	3.500	3.500	6.000	6.000	2.000	1.500
India <sup>f</sup>	...	12.671	8.968	6.949	5.810	4.586	4.927	5.693	6.632	7.115	7.101	3.566	6.176	8.429
Maldives <sup>g</sup>	...	...	...	...	...	...	...	...	...	...	5.500	6.000	5.998	4.902
Nepal	7.930	9.900	5.300	5.000	3.800	3.850	2.400	2.200	1.980	3.590	4.720	6.350	6.820	0.800
Sri Lanka	14.083	16.805	14.016	17.568	12.471	8.092	7.714	9.027	10.984	16.603	18.914	12.934	8.566	...
<b>Southeast Asia</b>														
Brunei Darussalam <sup>h</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lao PDR <sup>i</sup>	...	20.456	29.937	22.702	21.406	24.874	20.368	18.614	18.337	18.360	12.256	9.521	7.973	...
Malaysia	6.116	5.504	2.861	2.792	2.732	2.788	2.396	2.484	3.227	3.434	3.390	2.053	2.584	2.924
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	23.672	11.761	9.913	9.734	5.494	5.870	7.320	6.130	5.290	3.380	5.165	4.163	3.515	1.340
Singapore	3.285	1.114	2.213	1.662	0.813	0.647	0.963	2.063	2.958	2.354	0.910	0.336	0.335	0.288
Thailand	...	...	...	...	1.921	1.354	1.303	2.673	4.656	3.479	3.189	1.240	1.442	2.873
Viet Nam <sup>j</sup>	...	...	5.417	5.490	5.918	5.827	5.695	6.127	4.728	4.079	12.130	8.012	11.145	12.350
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	4.396	3.101	3.543	1.525	1.659	1.011	1.522	1.936	7.450	4.549	0.229	6.068	3.449	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea <sup>k</sup>	11.396	17.403	16.996	12.355	10.928	18.686	8.853	3.808	4.010	4.667	6.193	7.077	4.637	4.140
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	11.000	12.500	7.050	8.228	7.521	5.847	6.000	4.533	3.409	3.169	3.201	3.999	3.713	2.525
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia <sup>l</sup>	14.543	7.726	6.178	4.899	4.747	4.896	5.478	5.644	5.988	6.668	6.973	3.434	4.681	4.847
Japan	5.042	0.374	0.230	0.033	0.005	0.003	0.003	0.003	0.419	0.553	0.357	0.121	0.130	0.100
New Zealand	13.780	8.824	6.392	5.562	5.522	5.213	5.849	6.524	7.047	7.548	7.007	2.827	2.775	2.552

... = Data not available at cutoff date.

a Refers to 3-month treasury bills unless otherwise indicated.

b Refers to weighted average yield on 6-month treasury securities.

c Refers to 3-month treasury bonds trading rate.

d Refers to 91-day certificates of deposit.

e Refers to 91-day RMA bills.

f Figures are for fiscal year ending March.

g Refers to rate on 28-day treasury bills.

h Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

i Refers to weighted average auction rate for 6-month treasury bills.

j Refers to average monthly yield on 360-day treasury bills sold at auction.

k Refers to rate on 182-day treasury bills.

l Refers to 90-day bank-accepted bills.

Sources: *International Financial Statistics* CD-ROM (IMF 2012); for Australia, the People's Republic of China, and the Republic of Korea: OECD Statistics Online (OECD 2012); for Bhutan, India, and Taipei, China: economy sources; for Viet Nam: CEIC database.

**Table 3.11 Domestic Credit Provided by Banking Sector**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	-4.4	0.5	4.3	3.4	3.8	-2.8
Armenia	...	9.1	11.5	9.3	7.4	5.6	6.7	8.8	8.1	12.1	17.0	20.0	25.8	34.0
Azerbaijan	...	12.5	9.6	9.8	8.7	9.4	10.9	11.2	13.1	17.2	16.2	22.5	23.0	20.0
Georgia	...	8.1	21.5	20.0	20.1	20.0	18.9	21.5	23.7	31.1	32.7	32.9	33.2	34.3
Kazakhstan	...	9.5	12.3	11.6	13.1	14.8	21.0	24.7	32.5	41.0	54.2	54.6	45.4	40.6
Kyrgyz Republic	...	25.7	12.2	10.0	11.6	11.6	8.4	9.4	11.6	14.0	...	...	...	...
Pakistan	50.9	51.0	41.6	38.1	37.2	37.9	43.0	46.5	45.5	48.4	53.2	48.4	46.3	43.2
Tajikistan	...	...	17.9	24.3	21.1	14.0	16.5	16.4	15.3	27.5	...	...	...	...
Turkmenistan	...	1.1	26.9	18.6	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	89.4	87.7	119.7	123.0	143.5	151.9	140.4	134.3	133.5	127.8	120.8	145.1	146.3	145.9
Hong Kong, China	152.0	142.4	136.0	138.5	142.5	146.1	146.7	142.8	134.5	125.4	124.6	167.8	199.0	211.2
Korea, Rep. of	51.9	50.2	74.7	79.3	86.0	88.7	84.6	88.3	96.4	98.4	109.4	109.4	103.2	102.3
Mongolia	...	6.4	9.0	9.8	13.3	19.9	27.1	26.6	20.0	28.0	31.6	29.6	29.9	41.2
Taipei, China	1.2	1.7	1.8	1.9	1.8	1.8	1.8	1.9	1.9	1.8	2.0	2.0	1.9	2.0
<b>South Asia</b>														
Bangladesh	22.4	26.7	34.2	47.8	50.4	49.7	51.9	54.9	58.1	58.2	59.4	60.4	65.9	71.3
Bhutan	-1.1	10.4	3.0	6.7	11.7	11.8	18.3	15.0	13.3	13.5	12.5	30.9	40.6	50.5
India	50.0	42.9	51.4	53.0	57.1	55.8	57.6	58.4	60.9	60.8	67.7	70.4	73.0	75.1
Maldives	33.0	34.9	34.8	31.3	32.4	26.2	31.8	55.1	58.3	71.6	77.7	86.5	86.6	82.4
Nepal	28.0	34.0	40.8	42.7	35.4	39.6	41.7	41.9	44.3	49.8	64.6	69.1	68.6	66.5
Sri Lanka	38.0	40.9	43.7	45.4	42.2	40.7	43.3	43.6	47.1	45.0	42.8	39.6	40.5	46.2
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	38.6	35.6	37.7	29.4	20.5	10.4	16.5	18.8	9.3	32.2	25.1	...
Cambodia	...	5.3	6.4	5.6	5.6	6.6	8.0	7.2	8.9	12.9	16.2	19.1	22.7	24.1
Indonesia	46.7	51.8	60.7	54.5	52.4	49.2	49.6	46.2	41.7	40.6	36.8	37.0	36.5	38.5
Lao PDR	5.0	9.9	9.0	13.1	10.4	9.1	8.6	8.1	6.4	6.6	10.5	20.8	26.5	...
Malaysia	72.7	126.7	138.4	146.5	143.6	139.8	127.5	122.4	119.0	113.4	115.0	137.4	132.2	132.1
Myanmar	39.6	32.5	31.2	33.2	28.2	21.6	24.6	...	...	...	...	...	...	...
Philippines	23.2	55.7	58.3	56.1	55.1	54.3	54.0	47.2	48.2	48.3	47.4	48.7	49.2	51.8
Singapore	58.7	59.7	77.9	92.0	74.7	80.2	72.4	62.1	62.4	69.5	82.3	97.2	84.0	93.6
Thailand	94.1	141.3	138.3	128.6	127.8	130.7	124.5	119.2	109.0	131.6	130.5	137.0	135.5	150.8
Viet Nam	...	20.1	35.1	39.7	44.8	51.8	61.9	71.2	75.4	96.2	94.5	123.0	135.8	120.9
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	38.5	45.8	37.9	72.0	91.4	95.4	102.1	111.6	121.8	120.0	125.6	139.6	130.9	114.4
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	-31.0	-42.3	-30.4	-46.7	-42.4	-30.1	-24.5	-26.6	-29.5	-16.6	-23.5	-14.7	-17.8
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	35.7	29.2	28.2	24.1	28.1	24.2	24.4	22.1	23.3	22.5	22.6	39.0	35.7	27.7
Samoa	...	10.2	20.5	29.5	30.4	32.0	30.5	35.7	41.6	41.8	46.7	46.5	43.9	47.6
Solomon Islands	23.8	24.7	26.5	40.7	38.6	35.4	27.6	29.4	31.3	31.4	35.4	35.1	26.5	14.4
Timor-Leste	...	...	...	...	-13.6	-11.6	-31.8	-10.0	6.3	-22.5	-19.1	-13.0	-25.3	-26.5
Tonga	30.0	31.4	38.8	42.2	42.5	42.3	37.0	48.8	46.0	50.4	46.6	43.2	41.7	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	30.8	33.7	35.6	37.7	43.3	43.1	43.7	44.7	42.4	42.4	51.3	61.6	64.8	67.3
<b>Developed Member Economies</b>														
Australia	69.7	79.7	93.0	94.5	100.8	104.7	109.1	113.6	118.9	135.9	143.3	143.7	147.6	145.8
Japan	255.3	283.4	304.7	294.8	302.4	311.9	307.9	316.9	307.9	297.5	301.0	327.8	326.0	337.8
New Zealand	79.2	91.1	110.1	117.8	111.1	114.3	119.0	128.2	136.9	141.5	153.3	154.2	154.8	...

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); for Taipei, China: country sources.

## Money and Finance

**Table 3.12 Bank Nonperforming Loans**  
(% of total gross loans)

Regional Member	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia <sup>a,b</sup>	17.5	24.4	9.9	5.4	2.1	1.9	2.5	2.4	4.4	4.8	3.0	4.2
Azerbaijan	...	28.0	21.5	15.1	9.5	7.2	...	...	...	...	...	...
Georgia <sup>c</sup>	...	11.6	7.9	2.4	2.0	1.2	2.5	2.6	12.8	17.8	12.5	10.3
Kazakhstan <sup>d</sup>	...	...	...	8.4	4.3	3.3	2.4	2.7	5.1	21.2	23.8	26.3
Kyrgyz Republic	...	...	...	...	...	...	...	...	...	...	...	...
Pakistan	19.5	23.4	21.8	17.0	11.6	8.3	6.9	7.6	10.5	12.6	14.7	15.4
Tajikistan	...	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>												
China, People's Rep. of	22.4	29.8	26.0	20.4	13.2	8.6	7.1	6.2	2.4	1.6	1.1	1.1
Hong Kong, China <sup>e</sup>	7.3	6.5	5.0	3.9	2.3	1.4	1.1	0.8	1.2	1.6	0.8	0.7
Korea, Rep. of	8.9	3.4	2.4	2.6	1.9	1.2	0.8	0.7	1.1	1.2	1.9	...
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	5.3	7.5	6.1	4.3	2.8	2.2	2.1	1.8	1.5	1.2	0.6	0.5
<b>South Asia</b>												
Bangladesh	34.9	31.5	28.1	22.1	17.5	13.2	12.8	14.5	11.2	...	...	...
Bhutan	...	...	...	...	...	...	...	...	...	6.8	5.2	7.7
India <sup>f</sup>	12.8	11.4	10.4	8.8	7.2	5.2	3.3	2.5	2.3	2.3	2.4	...
Maldives	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	...	...	...	...	...	...	...	...	...	...	...
Sri Lanka	...	15.3	15.3	13.7	9.1	9.6	...	...	...	...	...	...
<b>Southeast Asia</b>												
Brunei Darussalam <sup>g</sup>	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	34.4	31.9	24.0	6.8	4.5	7.4	6.1	4.1	3.2	3.3	2.6	2.9
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia <sup>h</sup>	15.4	17.8	15.9	13.9	11.7	9.6	8.5	6.5	4.8	3.6	3.4	2.9
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...
Philippines <sup>i,j</sup>	24.0	27.7	26.5	16.1	14.4	10.0	7.5	5.8	4.5	4.1	3.8	...
Singapore <sup>k</sup>	3.4	8.0	7.7	6.7	5.0	3.8	2.8	1.5	1.7	2.4	1.8	...
Thailand	17.7	11.5	15.7	13.5	11.9	9.1	8.1	7.9	5.7	5.3	3.9	3.5
Viet Nam	...	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>												
Australia	0.5	0.6	0.4	0.3	0.2	0.2	0.6	0.6	1.3	2.0	2.2	2.2
Japan <sup>l</sup>	5.3	8.4	7.4	5.2	2.9	1.8	1.5	1.4	1.7	1.9	1.8	...
New Zealand	...	...	...	...	...	...	...	...	...	...	...	...

... = Data not available at cutoff date.

a Loans classified as loss, which are fully provisioned against, are held off-balance sheet.

b Includes loans that are less than 90 days overdue.

c Not a member of the Commonwealth of Independent States, but included here for reasons of geography and similarities in economic structure.

d Loans classified as doubtful of the fifth category plus loan losses.

e Loans classified as substandard, doubtful, and loss; not necessarily linked to a 90-day criterion.

f Unless otherwise indicated, date refers to the end of the fiscal year, i.e., March of the indicated calendar year.

g Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

h Loans with principal and/or interest past over 180 days; credit card debt and bankers' acceptances past over 90 days; loans secured by cash and cash substitutes past 365 days.

i Thirty days for loans payable in lump sum or payable in quarterly, semi-annual, or annual installments; 90 days for loans payable in monthly installments; as soon as they are past due for loans payable in daily, weekly, or semi-monthly installments.

j Interbank loans are excluded.

k Other characteristics may be considered beyond the 90-day past-due criterion to classify a loan as nonperforming.

l For nine major banks only. Unless otherwise indicated, data refer to the end of the fiscal year, i.e., March of the next calendar year.

Sources: World Development Indicators Online (World Bank 2012); for Taipei, China: country sources.

Table 3.13 **Growth Rates of Stock Market Price Index**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pakistan	6.3	-28.9	42.1	-18.4	47.9	76.9	53.0	47.3	35.5	21.1	-11.5	-32.0	32.3	15.2
Tajikistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	-0.5	37.3	2.3	-19.6	-6.0	0.0	-22.1	41.4	161.1	-27.7	-10.2	3.4	-5.7
Hong Kong, China	...	-5.5	26.5	-21.6	-16.8	-1.8	25.7	11.1	17.7	37.3	-9.8	-13.8	19.3	-0.3
Korea, Rep. of	-18.7	-4.8	-8.7	-21.7	32.2	-10.2	22.6	28.5	26.3	26.7	-10.6	-7.0	23.6	12.9
Mongolia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taipei, China	-21.4	-11.3	5.7	-37.5	6.5	-1.2	16.9	1.0	12.3	24.4	-17.5	-8.0	23.1	2.6
<b>South Asia</b>														
Bangladesh	-25.1	12.8	12.2	17.6	17.9	2.3	67.6	23.4	-12.8	54.8	26.0	6.9	114.4	-10.4
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
India	35.8	-17.4	11.2	-24.5	-6.4	18.3	44.4	32.6	55.0	39.6	-4.0	-6.4	29.8	-2.6
Maldives	...	...	...	...	285.4	22.6	13.7	51.8	-27.8	35.5	33.1	-21.7	-20.4	-22.9
Nepal	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sri Lanka	...	-31.0	-10.3	-8.4	56.3	41.8	35.7	46.8	15.7	14.0	-14.8	6.8	113.1	34.0
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	...	...	-9.1	-17.9	11.6	13.8	56.4	35.0	32.6	53.4	-5.6	-3.7	53.9	21.0
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	21.8	-6.9	21.4	-24.0	11.2	-0.9	20.8	6.4	5.8	37.0	-12.4	-5.9	27.1	9.7
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	-12.3	-10.9	-6.3	-35.6	-24.8	-15.7	41.8	151.7	106.0	199.9	31.7	-59.4	-30.8	64.0
Singapore	3.6	-5.5	5.0	-19.3	-5.0	-4.8	28.1	16.2	15.9	33.9	-23.5	-12.0	27.4	0.7
Thailand	...	...	-18.7	-11.4	20.8	31.6	37.5	4.2	4.1	6.6	-10.3	-15.4	45.6	21.3
Viet Nam	...	...	...	50.0	-37.5	-21.1	59.4	8.3	95.6	95.5	-52.2	-10.3	12.2	-11.1
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	8.1	2.1	-0.8	8.1	13.5	10.9	-19.6	0.7	5.1	-11.7	-10.5
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	34.8	19.5	17.8	52.5	36.1	15.4	19.8	-8.7	26.2	3.2
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	-7.6	-0.7	7.9	3.2	-2.9	-4.1	16.3	21.3	19.2	20.7	-21.0	-16.1	10.8	-2.4
Japan	-15.5	-13.7	11.6	-22.7	-18.0	-6.2	21.8	13.5	28.2	2.3	-28.6	-26.9	2.0	-7.2
New Zealand	-12.0	5.4	2.3	5.3	10.0	9.7	25.8	19.4	12.5	15.3	-20.6	-12.3	9.7	6.2

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: *International Financial Statistics* CD-ROM (IMF 2012); for the People's Republic of China; Hong Kong, China; the Philippines: CEIC database; for Taipei, China: economy sources.



## Money and Finance

Table 3.14 **Stock Market Capitalization**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	2	10	27	18	43	60	105	176	141	28	44
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	24	89	105	203	206	355	668	1389	327	733	1060	796
Kazakhstan	...	...	1342	1204	1341	2425	3941	10521	43688	41378	31075	57655	60742	43301
Kyrgyz Republic	...	...	4	4	7	31	34	42	93	121	94	72	79	165
Pakistan	2850	9286	6581	4944	10200	16579	29002	45937	45518	70262	23491	33239	38169	32764
Tajikistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	32	28	31	14	4	37	715	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	42055	580991	523952	463080	681204	639765	780763	2426326	6226305	2793613	5007646	4762837	3389098
Hong Kong, China	83400	303705	623398	506073	463085	551237	665248	693486	895249	1162566	1328837	915825	1079640	889597
Korea, Rep. of	111000	181955	171587	220046	249639	329616	428649	718180	835188	1123633	494631	836462	1089217	994302
Mongolia	...	27	37	37	32	42	25	46	113	612	407	430	1093	1579
Taipei, China	99736	192944	262335	303181	263048	373910	418562	486021	595641	655461	371235	636303	752407	652081
<b>South Asia</b>														
Bangladesh	321	1338	1186	1145	1193	1622	3317	3035	3610	6793	6671	7068	15683	23546
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
India	38600	127199	148064	110396	131011	279093	387851	553074	818879	1819101	645478	1179235	1615860	1015370
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	244	790	494	417	483	853	1344	1805	4909	4894	5485	4843	4529
Sri Lanka	917	1998	1074	1332	1681	2711	3657	5720	7769	7553	4326	8133	19924	19437
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	8080	66585	26834	23006	29991	54659	73251	81428	138886	211693	98761	178191	360388	390107
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	48600	222729	116935	120007	123872	168376	190011	181236	235356	325663	187066	255952	410534	395083
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	5930	58930	25957	41523	39021	23565	28948	40153	68382	103224	52101	80132	157321	165380
Singapore	34300	148004	152827	117338	101900	229328	277004	316658	276329	353489	180021	310766	370091	308320
Thailand	23900	141507	29489	36349	46173	121233	116695	124864	141093	196046	102594	138189	277732	268489
Viet Nam	...	...	...	...	...	154	248	461	9093	19542	9589	21199	20385	18316
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	67	244	121	373	433	539	587	637	522	568	1607	1404	1372
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	1520	1423	2339	2942	3166	6632	11959	10211	12213	9742	8999
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	109000	245218	372794	375131	378846	585475	776403	804074	1095858	1298429	675619	1258456	1454547	1198164
Japan	2920000	3667292	3157222	2251814	2126075	3040665	3678262	4736513	4726269	4453475	3220485	3377892	4099591	3540685
New Zealand	8840	31950	18866	17779	21745	33052	43731	43409	44940	47454	24166	67061	36295	71657

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); for Taipei, China: economy sources.

**Table 3.15 Stock Market Capitalization**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 <sup>a</sup>
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	...	0.1	0.4	1.0	0.5	0.9	0.9	1.1	1.5	1.6	0.3	0.4
Azerbaijan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Georgia	...	...	0.8	2.8	3.1	5.1	4.0	5.5	8.6	13.7	2.6	6.8	9.1	5.5
Kazakhstan	...	...	7.3	5.4	5.4	7.9	9.1	18.4	53.9	39.5	23.3	50.0	40.8	23.2
Kyrgyz Republic	...	...	0.3	0.3	0.5	1.6	1.5	1.7	3.3	3.2	1.8	1.5	1.7	2.8
Pakistan	7.1	15.3	8.9	6.8	14.1	19.9	29.6	41.9	35.7	49.1	14.3	20.5	21.6	...
Tajikistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	0.2	0.2	0.3	0.1	0.0	0.3	4.2	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	...	5.8	48.5	39.5	31.9	41.5	33.1	34.6	89.4	178.2	61.8	100.3	80.4	46.4
Hong Kong, China	108.5	210.6	368.6	303.8	282.7	347.6	401.0	390.1	471.4	561.4	617.0	437.6	481.0	365.6
Korea, Rep. of	42.1	35.2	32.2	43.6	43.3	51.2	59.4	85.0	87.8	107.1	53.1	100.3	107.4	89.1
Mongolia	...	1.9	3.2	3.0	2.3	2.7	1.2	1.8	3.3	14.5	7.2	9.4	17.6	18.4
Taipei, China	60.5	70.2	80.4	103.2	87.4	120.3	123.1	133.2	158.3	166.7	92.8	168.5	174.9	139.7
<b>South Asia</b>														
Bangladesh	1.1	3.5	2.5	2.4	2.5	3.1	5.9	5.0	5.8	9.9	8.4	7.9	15.6	21.9
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
India <sup>a</sup>	12.2	35.7	32.2	23.1	25.8	46.6	53.8	66.3	86.1	146.4	53.1	85.6	93.6	53.5
Maldives	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	...	5.5	14.4	8.2	6.9	7.6	11.7	16.5	19.9	47.8	38.9	42.5	30.8	24.5
Sri Lanka	11.4	15.3	6.6	8.5	9.8	14.4	17.7	23.4	27.5	23.3	10.6	19.3	40.2	32.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Indonesia	7.1	32.9	16.3	14.3	15.3	23.3	28.5	28.5	38.1	49.0	19.4	33.0	51.0	46.1
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	110.4	250.7	124.7	129.3	122.8	152.8	152.3	131.4	150.3	174.4	84.0	132.7	172.6	137.2
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	13.4	79.5	32.0	54.4	48.0	28.1	31.7	39.0	56.0	69.1	30.0	47.6	78.8	73.6
Singapore	95.0	183.2	159.3	128.7	112.5	245.6	253.4	256.4	199.2	210.2	101.3	164.9	177.3	118.7
Thailand	28.0	84.2	24.0	31.5	36.4	85.0	72.3	70.8	68.1	79.4	37.6	52.4	87.2	72.6
Viet Nam	...	...	...	...	...	0.4	0.5	0.9	14.9	27.5	10.5	21.8	19.2	14.8
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	3.4	14.5	7.3	20.2	18.7	19.7	19.5	20.5	15.4	15.8	55.8	44.0	36.0
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	49.3	47.4	66.1	74.9	64.6	118.5	189.0	127.5	154.3	102.8	71.5
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	34.7	66.1	89.4	98.6	95.4	125.0	126.1	115.4	146.2	151.5	63.6	136.2	128.5	82.9
Japan	95.5	69.7	67.6	55.0	54.3	71.9	79.9	104.0	108.3	101.7	66.0	67.1	75.1	60.3
New Zealand	19.9	50.9	36.6	33.6	33.2	38.1	42.8	39.1	40.6	34.3	20.5	52.9	25.9	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a ADB staff estimates using World Development Indicators (WDI Online 2012) and country sources.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); ADB staff estimates; for Taipei,China: economy sources.

## Exchange Rates

**Table 3.16 Official Exchange Rate**  
(local currency units per \$, period averages)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	487.50	36.57	47.36	47.50	47.26	48.76	47.85	49.49	49.93	49.96	50.25	50.23	46.45	46.75
Armenia	...	405.91	539.53	555.08	573.35	578.76	533.45	457.69	416.04	342.08	305.97	363.28	373.66	372.50
Azerbaijan	...	0.88	0.89	0.93	0.97	0.98	0.98	0.95	0.89	0.86	0.82	0.80	0.80	0.79
Georgia	...	...	1.98	2.07	2.20	2.15	1.92	1.81	1.78	1.67	1.49	1.67	1.78	1.69
Kazakhstan	0.59	60.95	142.13	146.74	153.28	149.58	136.04	132.88	126.09	122.55	120.30	147.50	147.36	146.62
Kyrgyz Republic	...	10.82	47.70	48.38	46.94	43.65	42.65	41.01	40.15	37.32	36.57	42.90	45.96	46.14
Pakistan	21.71	31.64	53.65	61.93	59.72	57.75	58.26	59.51	60.27	60.74	70.41	81.71	85.19	86.34
Tajikistan	...	0.12	2.08	2.37	2.76	3.06	2.97	3.12	3.30	3.44	3.43	4.14	4.38	4.61
Turkmenistan	5.90	0.02	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	2.29	2.85	2.85	2.85
Uzbekistan	0.00	29.78	236.61	690.75	754.31	968.99	1014.43	1106.10	1215.60	1260.83	1314.17	1458.75	1576.80	1717.80
<b>East Asia</b>														
China, People's Rep. of	4.78	8.35	8.28	8.28	8.28	8.28	8.28	8.19	7.97	7.61	6.95	6.83	6.77	6.46
Hong Kong, China	7.79	7.74	7.79	7.80	7.80	7.79	7.79	7.78	7.77	7.80	7.79	7.75	7.77	7.78
Korea, Rep. of	707.76	771.27	1130.96	1290.99	1251.09	1191.61	1145.32	1024.12	954.79	929.26	1102.05	1276.93	1156.06	1108.29
Mongolia	...	448.61	1076.67	1097.70	1110.31	1146.54	1185.30	1205.25	1179.70	1170.40	1165.80	1437.80	1357.06	1265.52
Taipei, China	26.89	26.48	31.23	33.80	34.58	34.42	33.42	32.17	32.53	32.84	31.53	33.06	31.65	29.47
<b>South Asia</b>														
Bangladesh	34.57	40.28	52.14	55.81	57.89	58.15	59.51	64.33	68.93	68.87	68.60	69.04	69.65	74.15
Bhutan	17.51	32.43	44.94	47.19	48.61	46.58	45.32	44.10	45.31	41.35	43.51	48.41	45.73	46.67
India	17.50	32.43	44.94	47.19	48.61	46.58	45.32	44.10	45.31	41.35	43.51	48.41	45.73	46.67
Maldives	9.55	11.77	11.77	12.24	12.80	12.80	12.80	12.80	12.80	12.80	12.80	12.80	12.80	14.60
Nepal	29.37	51.89	71.09	74.95	77.88	76.14	73.67	71.37	72.76	66.42	69.76	77.55	73.16	74.02
Sri Lanka	40.06	51.25	77.01	89.38	95.66	96.52	101.19	100.50	103.91	110.62	108.33	114.95	113.06	110.57
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	1.81	1.42	1.72	1.79	1.79	1.74	1.69	1.66	1.59	1.51	1.42	1.45	1.36	1.26
Cambodia	426.25	2450.83	3840.75	3916.33	3912.08	3973.33	4016.25	4092.50	4103.25	4056.17	4054.17	4139.33	4184.92	4058.50
Indonesia	1842.81	2248.61	8421.78	10260.90	9311.19	8577.13	8938.85	9704.74	9159.32	9141.00	9698.96	10389.90	9090.43	8770.43
Lao PDR <sup>b</sup>	707.75	804.69	7887.64	8954.58	10056.30	10569.00	10585.40	10655.20	10159.90	9603.16	8744.22	8516.05	8258.77	8029.26
Malaysia	2.70	2.50	3.80	3.80	3.80	3.80	3.80	3.79	3.67	3.44	3.34	3.52	3.22	3.06
Myanmar	6.28	5.61	6.43	6.68	6.57	6.08	5.75	5.76	5.78	5.56	5.39	5.52	5.58	5.39
Philippines	24.31	25.71	44.19	50.99	51.60	54.20	56.04	55.09	51.31	46.15	44.32	47.68	45.11	43.31
Singapore	1.81	1.42	1.72	1.79	1.79	1.74	1.69	1.66	1.59	1.51	1.41	1.45	1.36	1.26
Thailand	25.59	24.92	40.11	44.43	42.96	41.48	40.22	40.22	37.88	34.52	33.31	34.29	31.69	30.49
Viet Nam	6482.80	11038.30	14167.70	14725.20	15279.50	15509.60	15746.00	15858.90	15994.30	16105.10	16302.30	17065.10	18612.90	20490.00
<b>The Pacific</b>														
Cook Islands	1.68	1.52	2.20	2.38	2.16	1.72	1.51	1.42	1.54	1.36	1.42	1.60	1.39	1.27
Fiji	1.48	1.41	2.13	2.28	2.19	1.90	1.73	1.69	1.73	1.61	1.59	1.96	1.92	1.79
Kiribati	1.28	1.35	1.72	1.93	1.84	1.54	1.36	1.31	1.33	1.20	1.19	1.28	1.09	0.97
Marshall Islands <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Micronesia, Fed. States of <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Nauru	1.28	1.35	1.72	1.93	1.84	1.54	1.36	1.31	1.33	1.20	1.19	1.28	1.09	0.97
Palau <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Papua New Guinea	0.96	1.28	2.78	3.39	3.90	3.56	3.22	3.10	3.06	2.97	2.70	2.76	2.72	2.37
Samoa	2.31	2.47	3.29	3.48	3.38	2.97	2.78	2.71	2.78	2.62	2.64	2.73	2.48	2.32
Solomon Islands	2.53	3.41	5.09	5.28	6.75	7.51	7.48	7.53	7.61	7.65	7.75	8.06	8.06	7.64
Timor-Leste <sup>c</sup>	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Tonga	1.28	1.27	1.76	2.12	2.20	2.15	1.97	1.94	2.03	1.97	1.94	2.03	1.91	1.73
Tuvalu	1.28	1.35	1.72	1.93	1.84	1.54	1.36	1.31	1.33	1.20	1.19	1.28	1.09	0.97
Vanuatu	117.06	112.11	137.64	145.31	139.20	122.19	111.79	109.25	110.64	102.44	101.33	106.74	96.91	91.71
<b>Developed Member Economies</b>														
Australia	1.28	1.35	1.72	1.93	1.84	1.54	1.36	1.31	1.33	1.20	1.19	1.28	1.09	0.97
Japan <sup>d</sup>	144.79	94.06	107.77	121.53	125.39	115.93	108.19	110.22	116.30	117.75	103.36	93.57	87.78	79.81
New Zealand	1.68	1.52	2.20	2.38	2.16	1.72	1.51	1.42	1.54	1.36	1.42	1.60	1.39	1.27

... = Data not available at cutoff date, 0.00 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b A floating exchange rate policy was adopted in September 1995 that allowed commercial banks to set their own rates and hence, figures for 1996 onward are simple averages of midpoint rates reported daily.

c Unit of currency is the US dollars.

d Figures beginning 1993 are not comparable to those prior to 1993 due to change in appropriation standard.

Sources: *International Financial Statistics* CD-ROM (IMF 2012); for Turkmenistan and Uzbekistan: UN National Accounts Main Aggregates Database (UN 2012) and ADB staff estimates; for Lao PDR (2011) and Taipei, China: economy sources.

## Exchange Rates

**Table 3.17 Purchasing Power Parity Conversion Factor**  
(local currency units per \$, period averages)

Regional Member	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	13.65	13.89	14.42	15.13	15.01	16.52	22.01	20.74	22.44	...
Armenia	164.65	167.55	168.78	172.84	178.72	178.58	180.99	183.34	190.11	192.92	208.22	211.23
Azerbaijan	0.27	0.27	0.27	0.28	0.30	0.33	0.36	0.42	0.53	0.42	0.47	0.54
Georgia	0.62	0.63	0.66	0.67	0.71	0.74	0.78	0.83	0.89	0.86	0.92	0.98
Kazakhstan	36.42	39.23	40.85	44.70	50.49	57.61	67.83	76.16	90.11	93.35	110.32	125.01
Kyrgyz Republic	9.98	10.48	10.52	10.71	10.95	11.35	12.03	13.43	16.06	16.53	18.15	20.46
Pakistan	16.17	17.06	17.20	17.60	18.44	19.10	20.44	21.39	24.32	28.86	31.94	36.98
Tajikistan	0.34	0.43	0.51	0.64	0.73	0.74	1.11	1.21	1.35	1.50	1.67	1.84
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	91.20	129.48	185.32	230.14	258.88	304.12	357.96	431.41	506.03	604.73	714.73	800.60
<b>East Asia</b>												
China, People's Rep. of	3.32	3.31	3.28	3.30	3.43	3.45	3.47	3.62	3.82	3.76	3.97	4.16
Hong Kong, China	7.48	7.18	6.82	6.27	5.88	5.69	5.49	5.50	5.46	5.36	5.33	5.37
Korea, Rep. of	746.21	757.83	769.77	794.28	796.00	788.92	774.82	768.65	785.72	804.11	824.57	822.78
Mongolia	259.12	279.85	292.91	316.24	358.93	417.22	493.05	534.88	635.55	640.35	759.87	811.84
Taipei, China	22.59	21.90	21.46	20.82	20.26	19.34	18.53	17.91	17.01	16.82	16.44	15.64
<b>South Asia</b>												
Bangladesh	21.26	21.12	21.45	21.96	22.26	22.64	23.07	23.94	25.48	26.86	28.27	29.26
Bhutan	14.03	14.35	14.86	15.47	15.32	15.74	16.07	16.11	16.65	17.28	18.00	18.38
India	13.47	13.59	13.87	14.11	14.54	14.67	15.12	15.54	16.52	17.33	18.58	19.55
Maldives	6.94	8.62	8.64	8.34	8.35	8.13	8.65	9.00	9.63	10.27	10.26	10.47
Nepal	19.42	21.08	21.56	21.77	22.05	22.65	23.56	24.63	25.46	29.20	33.26	35.75
Sri Lanka	24.69	27.45	30.20	31.10	32.91	35.17	37.91	42.01	47.82	50.09	53.14	55.79
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	0.74	0.68	0.67	0.70	0.79	0.90	0.96	0.95	1.04	0.80	0.84	0.98
Cambodia	1231.63	1236.16	1225.12	1221.41	1245.32	1278.55	1295.94	1341.53	1473.34	1494.35	1523.43	1540.27
Indonesia	2798.73	3127.92	3259.41	3367.34	3555.31	3934.26	4348.23	4701.47	5434.60	5822.38	6222.79	6565.87
Lao PDR	2133.19	2270.88	2375.78	2639.72	2842.02	2988.38	3207.80	3349.31	3567.28	3426.25	3726.57	3785.34
Malaysia	1.68	1.62	1.64	1.66	1.71	1.73	1.74	1.78	1.92	1.77	1.84	1.90
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	19.35	19.98	20.48	20.69	21.24	21.75	22.12	22.16	23.32	23.71	24.43	24.79
Singapore	1.20	1.14	1.11	1.08	1.09	1.08	1.07	1.10	0.99	0.98	1.05	1.03
Thailand	15.98	15.95	15.83	15.71	15.75	15.93	16.24	16.33	16.61	16.75	17.17	17.42
Viet Nam	4015.00	4002.48	4093.67	4277.28	4500.57	4712.69	4897.14	5151.30	6155.46	6457.87	7141.49	8401.64
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	1.28	1.29	1.32	1.39	1.38	1.43	1.44	1.44	1.45	1.43	1.53	1.64
Kiribati	0.67	0.71	0.73	0.72	0.67	0.66	0.64	0.65	0.67	0.69	0.67	0.67
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	0.81	0.80	0.79	0.77	0.76	0.75	0.74	0.74	0.76	0.79	0.81	0.83
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	1.05	1.09	1.21	1.25	1.19	1.34	1.42	1.41	1.49	1.41	1.53	1.62
Samoa	1.59	1.59	1.60	1.60	1.67	1.63	1.72	1.80	1.83	1.82	1.84	1.79
Solomon Islands	2.70	2.74	3.02	3.01	3.14	3.20	3.23	3.66	3.73	3.61	3.77	3.94
Timor-Leste	0.37	0.36	0.35	0.36	0.35	0.47	0.46	0.47	0.51	0.53	0.53	0.56
Tonga	0.99	0.99	1.06	1.13	1.15	1.20	1.37	1.39	1.43	1.42	1.45	1.54
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	60.10	60.96	60.99	60.51	59.83	58.13	59.12	60.22	61.73	61.88	62.88	62.68
<b>Developed Member Economies</b>												
Australia	1.31	1.33	1.34	1.35	1.37	1.39	1.41	1.43	1.48	1.45	1.51	1.56
Japan	154.75	149.46	143.77	139.69	134.41	129.55	124.72	120.31	116.85	115.19	111.45	106.88
New Zealand	1.44	1.47	1.47	1.50	1.51	1.54	1.49	1.50	1.49	1.48	1.51	1.52

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); ADB staff estimates for Brunei Darussalam (2011); and Taipei, China using country sources, CEIC data, and US Bureau of Economic Analysis.

## Exchange Rates

**Table 3.18 Price Level Indices**  
(PPPs to official exchange rates, period averages, United States = 100)

Regional Member	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	28.89	28.48	30.14	30.57	30.07	33.06	43.80	41.30	48.31	...
Armenia	30.52	30.18	29.44	29.86	33.50	39.02	43.50	53.60	62.14	53.11	55.72	56.71
Azerbaijan	29.66	28.56	27.77	28.53	30.04	35.11	40.05	49.03	63.99	52.53	59.07	68.23
Georgia	31.18	30.63	30.14	31.24	36.86	40.71	43.56	49.49	59.53	51.51	51.80	58.20
Kazakhstan	25.63	26.74	26.65	29.89	37.12	43.35	53.80	62.14	74.91	63.29	74.86	85.26
Kyrgyz Republic	20.93	21.66	22.41	24.54	25.67	27.68	29.97	36.00	43.92	38.54	39.48	44.34
Pakistan	30.15	27.55	28.80	30.47	31.65	32.10	33.91	35.21	34.54	35.32	37.49	42.83
Tajikistan	16.22	18.08	18.42	20.84	24.48	23.88	33.58	35.24	39.45	36.24	38.12	39.95
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	38.55	18.75	24.57	23.75	25.52	27.49	29.45	34.22	38.51	41.46	45.33	46.61
<b>East Asia</b>												
China, People's Rep. of	40.11	40.03	39.62	39.82	41.41	42.07	43.47	47.65	55.02	55.04	58.58	64.31
Hong Kong, China	96.03	92.04	87.43	80.48	75.50	73.13	70.73	70.44	70.06	69.21	68.60	68.93
Korea, Rep. of	65.98	58.70	61.53	66.66	69.50	77.03	81.15	82.72	71.30	62.97	71.33	74.24
Mongolia	24.07	25.49	26.38	27.58	30.28	34.62	41.79	45.70	54.52	44.54	55.99	64.15
Taipei, China	72.36	64.79	62.07	60.49	60.61	60.13	56.95	54.53	53.93	50.89	51.95	53.06
<b>South Asia</b>												
Bangladesh	40.78	37.85	37.05	37.76	37.41	35.20	33.47	34.76	37.14	38.90	40.59	39.46
Bhutan	31.23	30.40	30.58	33.22	33.81	35.69	35.47	38.95	38.28	35.69	39.37	39.38
India	29.97	28.80	28.53	30.29	32.08	33.26	33.38	37.59	37.98	35.79	40.63	41.88
Maldives	58.97	70.37	67.48	65.12	65.25	63.54	67.60	70.30	75.21	80.20	80.15	71.71
Nepal	27.32	28.13	27.69	28.59	29.93	31.74	32.38	37.09	36.49	37.65	45.46	48.30
Sri Lanka	32.07	30.71	31.57	32.22	32.52	35.00	36.49	37.98	44.14	43.58	47.00	50.46
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	42.67	37.90	37.46	40.01	46.48	54.26	60.59	62.78	73.61	55.28	61.40	77.78
Cambodia	32.07	31.56	31.32	30.74	31.01	31.24	31.58	33.07	36.34	36.10	36.40	37.95
Indonesia	33.23	30.48	35.01	39.26	39.77	40.54	47.47	51.43	56.03	56.04	68.45	74.86
Lao PDR	27.04	25.36	23.62	24.98	26.85	28.05	31.57	34.88	40.80	40.23	45.12	47.14
Malaysia	44.23	42.56	43.19	43.70	45.06	45.79	47.57	51.78	57.60	50.22	57.09	61.94
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	43.80	39.17	39.68	38.18	37.90	39.49	43.10	48.02	52.61	49.73	54.16	57.24
Singapore	69.34	63.79	62.26	61.72	64.59	64.80	67.07	72.95	70.22	67.58	77.35	82.04
Thailand	39.85	35.91	36.84	37.86	39.17	39.61	42.88	47.31	49.85	48.86	54.18	57.13
Viet Nam	28.34	27.18	26.79	27.58	28.58	29.72	30.62	31.99	37.76	37.84	38.37	41.00
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	60.18	56.87	60.20	73.36	79.80	84.55	82.99	89.27	91.16	73.33	79.98	91.71
Kiribati	38.88	36.67	39.50	46.68	49.27	50.58	48.41	54.62	55.99	53.88	61.78	69.55
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	80.93	80.10	78.87	76.97	75.68	74.83	73.67	74.00	75.91	79.24	80.76	82.91
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	37.60	32.27	31.02	35.05	36.95	43.07	46.53	47.71	55.28	51.32	56.16	68.45
Samoa	48.34	45.69	47.41	53.98	59.98	60.07	62.00	68.92	69.05	66.77	74.25	77.28
Solomon Islands	53.06	51.89	44.82	40.14	41.96	42.50	42.48	47.86	48.09	44.84	46.76	51.56
Timor-Leste	36.57	35.81	35.25	36.15	35.06	46.91	46.01	47.23	51.05	53.09	53.23	56.43
Tonga	56.16	46.52	48.21	52.70	58.44	62.01	67.75	70.45	73.74	69.94	76.19	89.34
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	43.67	41.95	43.81	49.52	53.52	53.21	53.44	58.79	60.91	57.97	64.89	68.35
<b>Developed Member Economies</b>												
Australia	76.04	68.76	72.61	87.40	100.42	106.02	106.15	119.45	124.06	113.10	138.50	160.76
Japan	143.60	122.98	114.66	120.50	124.23	117.54	107.24	102.17	113.05	123.11	126.97	133.92
New Zealand	65.61	61.85	67.94	87.01	100.31	108.08	96.42	110.44	104.78	92.77	108.54	120.34

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: ADB staff estimates using country sources, CEIC data, US Bureau of Economic Analysis, and World Development Indicators Online (World Bank 2012).

## Globalization

### Snapshots

- Trade remains very important to the region, which accounted for 34% of total world exports of merchandise goods in 2011 compared with 25% in 2001. Intra-regional trade is high, with more than half of Asia and the Pacific exports in 2011 going to economies within the region.
- As shown by increasing shares of service exports in GDP, trade in services is growing significantly more important to the region, particularly for economies such as Fiji; Hong Kong, China; the Maldives; Singapore; and Vanuatu. Tourism is an important engine of development for some economies especially in the Pacific (e.g., Palau, the Cook Islands, the Maldives, Vanuatu, and Samoa).
- Migrant workers' remittances continue to be an important external source of foreign exchange for some economies in the region.
- A majority of the 24 economies in developing Asia with data on foreign direct investment (FDI) in 2011 posted positive FDI growth.
- Among 36 economies in the region with data on external debt, nearly two-thirds showed a decrease in external debt as a percentage of GNI in 2010 compared to their levels in 2000.

### Key Trends

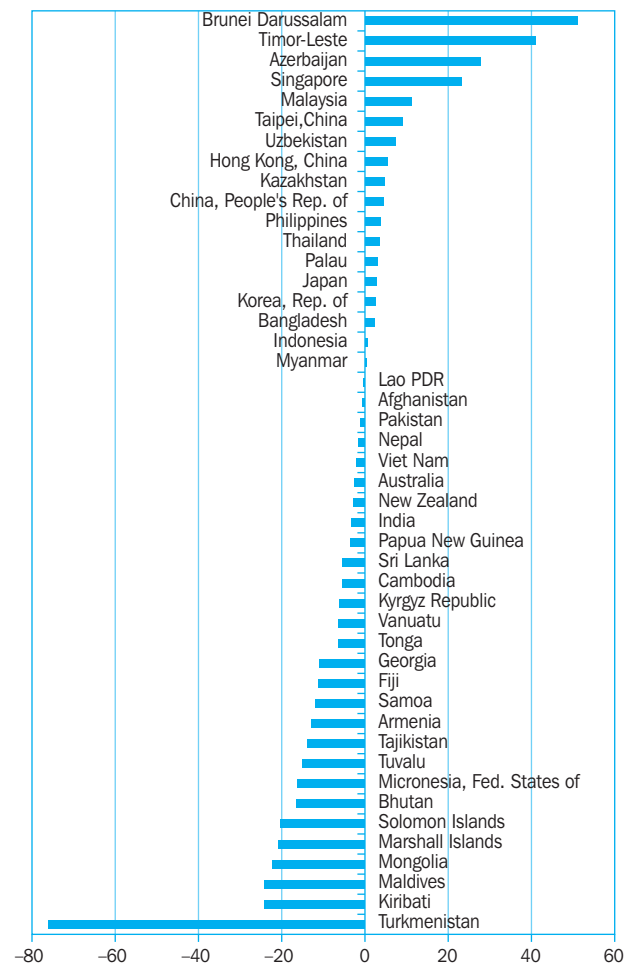
Of the 46 economies for which data are available, 18 recorded current account surpluses based on data for 2010 and 2011, while 28 recorded deficits (Figure 4.1). The top five surplus economies in terms of percentage of GDP are Azerbaijan, Brunei Darussalam, Malaysia, Singapore, and Timor-Leste, mostly due to their recorded excess of exports over imports of goods. For Timor-Leste, however, the surplus was largely attributed to services and income credits.

In dollar terms, the People's Republic of China (PRC) had the largest surplus in 2011, at \$268 billion. Next was Japan, with \$120 billion, and Singapore, with \$57 billion. India recorded the biggest deficit at \$53.6 billion, followed by Australia, with \$33.0 billion, and New Zealand, with \$7.6 billion.

Asia and the Pacific region accounted for about a third of the world's exports of merchandise goods in 2011, versus about a quarter in 2001 (Figure 4.2).<sup>1</sup> Trade remains very important to the region—in 2011 its total exports amounted to 34.4% of the world's total exports, very close to Europe's 38.5%. The combined exports of North and Central America and South America accounted for 17.0%, and Africa, for 2.7%. The largest exporters in Asia in 2011 were the PRC, accounting for almost a third of the region's exports; Japan, 13.5%; the Republic of Korea, 9.2%; Hong Kong, China, 7.0%; and Singapore, 6.7%. And about 34.7% of the world's total recorded imports in 2011 went to the region.

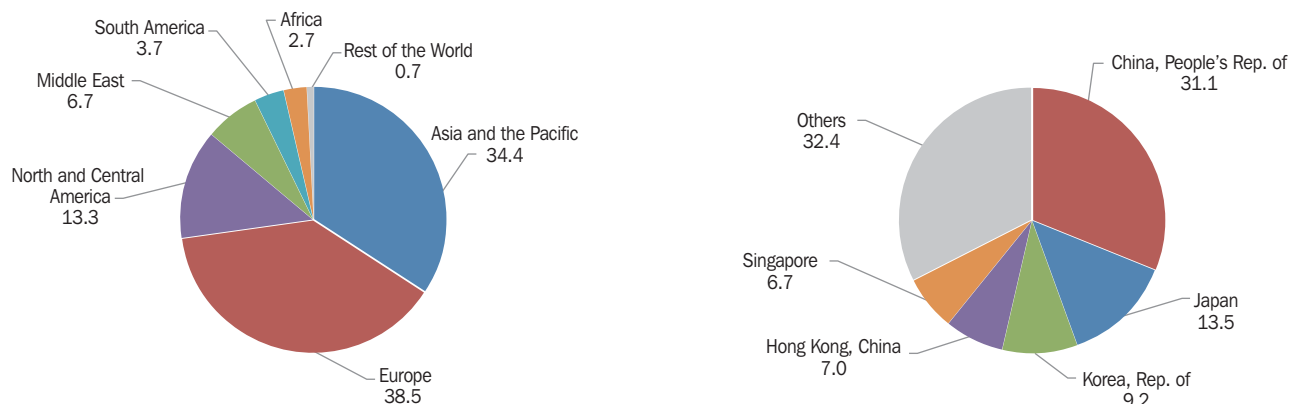
1. Computed using data from the Direction of Trade, IMF (2012).

Figure 4.1 Current Account Balance as a Percentage of GDP  
(Average of Last 2 Years)



GDP = gross domestic product.  
Source: Table 4.3.

Figure 4.2 Shares in Total World Exports, Asia-Pacific vis-à-vis Regions of the World, 2011 (%)

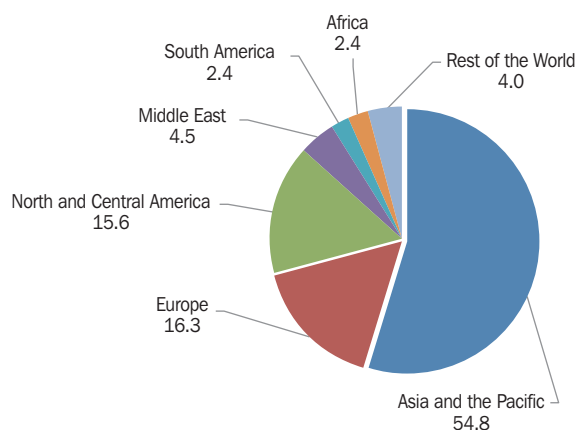


Source: *Direction of Trade Statistics CD-ROM (IMF 2012)*.

Intraregional trade was notably high in 2011, with more than half of exports from Asia and the Pacific going to economies within the region (Figure 4.3). The high degree of intraregional trade can temper the negative effects of the slowdown in developed economies such as the US and the euro area. Two other major markets are Europe and North and Central America, with about 16% of Asia and the Pacific exports going to each region.

Major sources of imports of Asia and the Pacific are the region itself (45.5%), Europe (13.6%), and the Middle East (11.4%).

Figure 4.3 Destination of Merchandise Exports of Asia and the Pacific Region, 2011 (%)

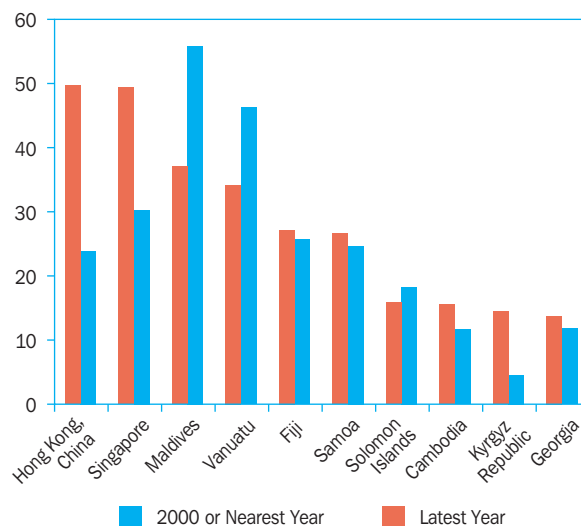


Source: Table 4.13.

### Services continued to grow in a number of economies.

The latest available data show that services exports were important to Hong Kong, China; the Maldives; Singapore; and Vanuatu. Figure 4.4 shows the economies in the region with the highest shares of service exports in GDP. For 2011 or the latest years where data are available, the shares in GDP ranged from 13.8% (Georgia) to 49.7% (Hong Kong, China). Except for the Maldives and Vanuatu, all economies in the figure showed growth in their service exports based on their latest year data compared to their positions in 2000.

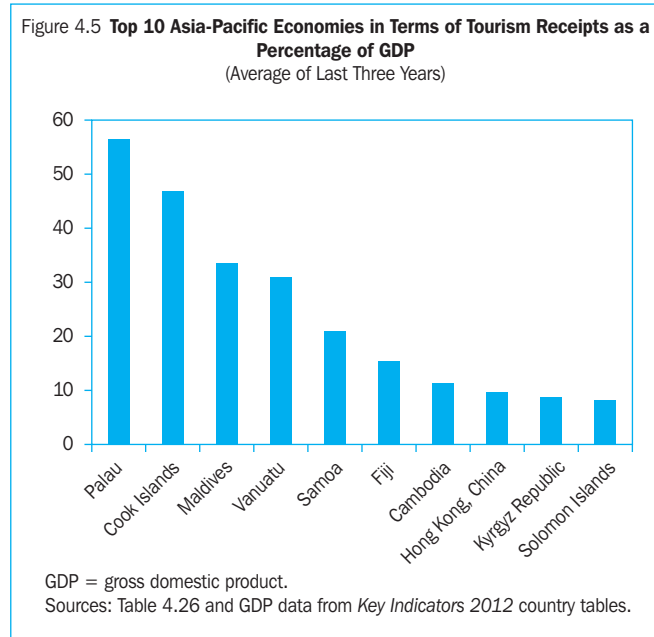
Figure 4.4 Top 10 Asia-Pacific Economies in Terms of Service Exports as a Percentage of GDP, 2000 (or Nearest Year) and Latest Year



GDP = gross domestic product.

Sources: International Financial Statistics CD-ROM (IMF 2012) and GDP data from *Key Indicators 2012* country tables.

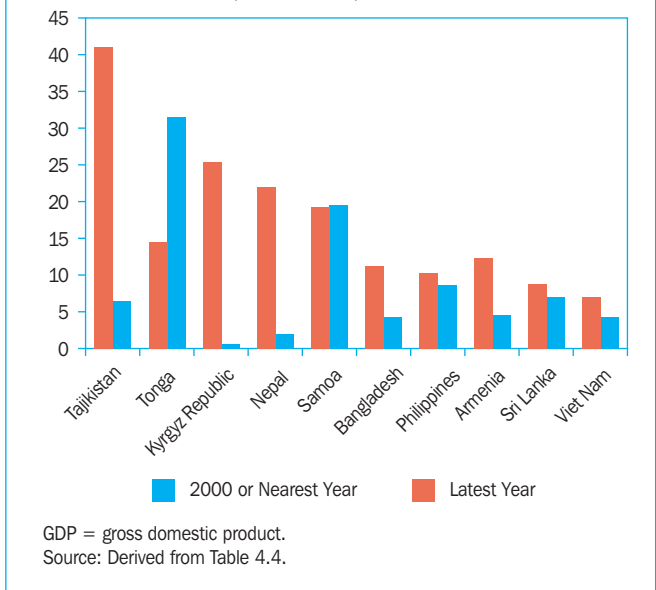
**Tourism is notably an important engine of development to some economies.** As an average share of GDP for the last 3 years, tourism receipts were highest in Pacific economies such as Palau (56.5%), the Cook Islands (46.8%), the Maldives (33.6%), Vanuatu (30.9%), and Samoa (21.1%). Non-Pacific economies such as Cambodia; Hong Kong, China; and the Kyrgyz Republic are also in the top 10 (Figure 4.5).



In terms of receipts per international tourist arrival in 2011, Australia continues to have the highest receipts, with about \$5,352 per tourist arrival; the Solomon Islands, with \$3,174; India, \$2,785; Vanuatu, \$2,403; and New Zealand, \$2,125. These are not necessarily the top economies in terms of tourist arrivals. The average length that tourists stay can also affect the receipts from international tourist arrivals.

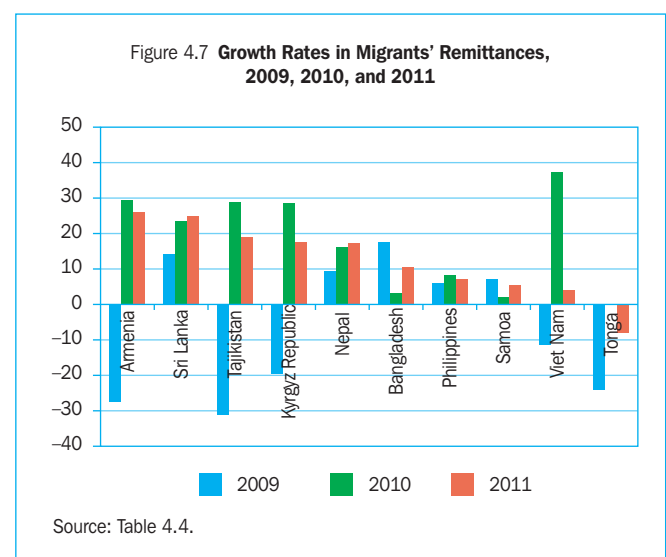
**Migrant workers' remittances continue to be an important external source of foreign exchange for developing countries.** Based on the average proportion of GDP for the last 5 years, remittances were important to Tajikistan, with an average proportion of 42.2%; Tonga, with 23.3%; and the Kyrgyz Republic, with 23.2%. Figure 4.6 shows the top 10 economies in the region in terms of workers' remittances as a percentage of GDP for 2000 (or the nearest year) and 2011 (or the latest year). Moreover, comparing their remittances' proportion of GDP in 2000 to that in the latest year, large increases are noted for Tajikistan (from 6.4% in 2000 to 34.7% in the latest year), the Kyrgyz Republic (from 0.6% to 24.7%), and Nepal (from 1.9% to 20.1%). Except for Samoa and Tonga, the economies shown in Figure 4.6 exhibited growth in remittances as a proportion of GDP.

Figure 4.6 **Top 10 Asia-Pacific Economies in Terms of Workers' Remittances as a Percentage of GDP,**  
2000 (or Nearest Year) and Latest Year



The leading economies in 2011 in terms of remittances are India and the PRC, with \$63.7 billion and \$62.5 billion, respectively, followed by the Philippines, with \$23.0 billion. Pakistan and Bangladesh each received about \$12 billion.

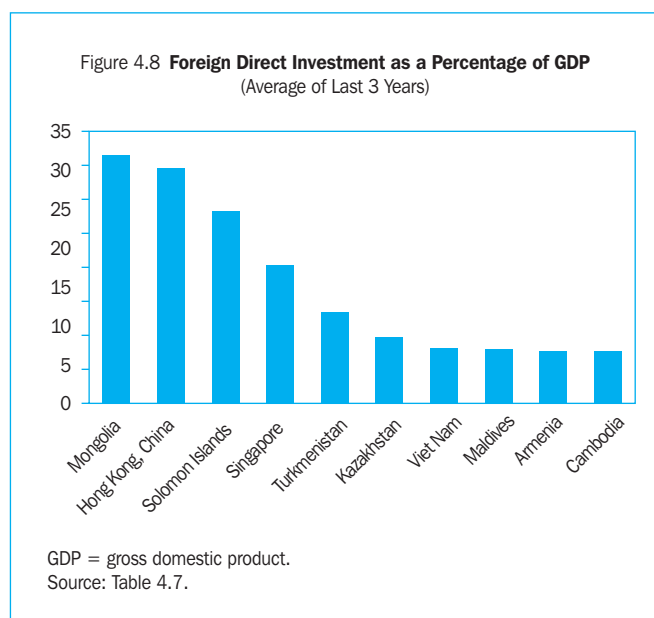
Although remittances increased quite dramatically for a number of economies since 2000, the recent economic and political conditions in Europe, North America, the Middle East, and other parts of Asia in the last 3 years might have affected the inflow of remittances, as a slow-down was noted in 2011 for Armenia, the Kyrgyz Republic, the Philippines, Samoa, Tajikistan, and Viet Nam (Figure 4.7). A decline in remittances was observed for Tonga.





Of the 24 economies in developing Asia with data on FDI in 2011, a majority have posted positive growth. FDI flows in developing Asia posted a recovery in 2010 from a drop in 2009 due to the global financial crisis. Data for FDI flows for 2011, however, are available for too few economies to allow a conclusive statement on the region's overall progress in 2011. Of the 24 economies in developing Asia with 2011 data, a majority (15 of them) exhibited positive FDI growth, with Samoa, New Zealand, and the Republic of Korea leading the list. Taipei, China recorded the biggest drop, at nearly 200%.

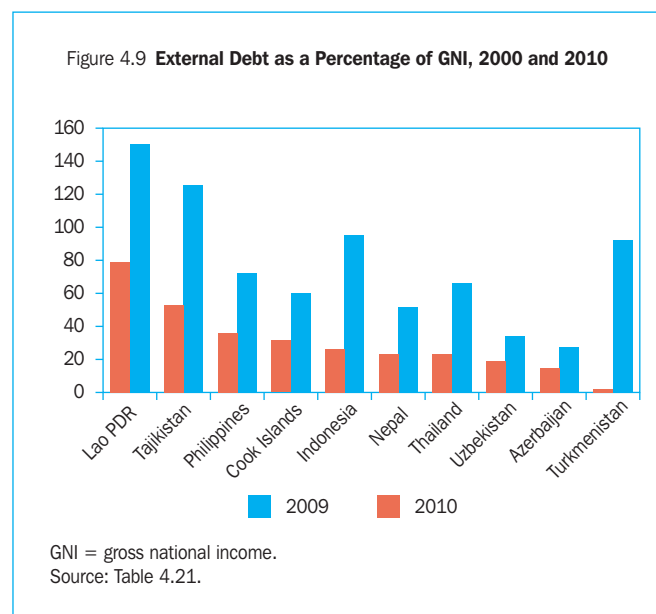
With FDI as a percentage of GDP averaged over the last 3 years, the top five economies are Hong Kong, China; Mongolia; Singapore; the Solomon Islands; and Turkmenistan (Figure 4.8). Investment interest in these economies may primarily be attracted by their strategic locations, their status in international business, environments favorable to business, or opening up of their economies to the world.



Among 36 economies in Asia and the Pacific region with data on external debt as a percent of GNI for 2010, nearly two-thirds showed a decrease from their levels in 2000. Big reductions are noted for the Lao PDR, Tajikistan, and the Philippines. Figure 4.9 shows the economies with the largest drops in the share of external debt to GNI from 2000–2010. For the economies in Figure 4.9, external debt ranged from 2% to 94% of GNI in 2010, whereas it ranged from 7% to 150% in 2000. The exception is Turkmenistan, where external debt is now very small. Thirteen economies had increased external debt as a percentage of GNI in 2010—the top three were Palau, the Maldives, and Taipei, China.

Reducing external debt is important in some sense. Loko et al. (2003) cited empirical evidence indicating that the level of external debt has an impact on economic growth, which is also likely to affect poverty. Related to external debt, Ferrarini (2012) highlighted the importance of public debt sustainability for the region to continue to serve as an engine for global growth.

Based on the average of the last 3 years for which data are available, economies that recorded the highest debt service payments as a percentage of their exports of goods and services are Kazakhstan, 54.7%; the Marshall Islands, 54.5%; and the Cook Islands, 52.6%. Afghanistan, Cambodia, and the Republic of Korea had low debt service payments ratios. A lower ratio for debt service payments to value of exports of goods and services indicates better capacity to earn foreign exchange to pay external debt.



## Data Issues and Comparability

Most of the international transactions in this section are taken from the balance-of-payments statistics. Countries follow International Monetary Fund guidelines when compiling these statistics and meet regularly to discuss methodology, but many countries have difficulty in accurately recording nonofficial transactions such as migrant workers' remittances and private capital flows, which is one of the reasons that the *Balance of Payments Manual* was updated to the 6th edition (BPM6). Analysis for this section was based on the balance-of-payments data as reported by the economies. Only 5 of them still use the BPM4. A large majority use BPM5, and three have already shifted to BPM6. This affects the comparability of data across economies.

International trade statistics are closely monitored by the World Trade Organization and other international agencies. Common definitions are used by all countries, and the larger Asian economies use standard forms and procedures for data processing.

International tourist arrivals and receipts data come from a specialized agency of the United Nations, the World Tourism Organization, which serves as a global forum for tourism policy issues and a practical source of information related to tourism.

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- Loko, B., M. Mlachila, R. Nallari, and K. Kalonji. 2003. The Impact of External Indebtedness on Poverty in Low-Income Countries. IMF Working Paper (WP/03/61). Washington, DC: IMF.

## Balance of Payments

Table 4.1 Trade in Goods Balance  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	-28.4	-50.4	-61.6	-65.5	-65.6	-57.8	-60.2	-50.4	-39.2	...
Armenia	...	-31.3	-24.2	-19.8	-15.5	-15.5	-12.8	-12.0	-14.0	-17.4	-22.8	-24.1	-21.9	-20.6
Azerbaijan	...	-15.4	6.1	10.8	7.7	-1.3	1.9	24.9	36.9	46.1	47.1	32.9	37.3	38.4
Georgia	...	...	-17.4	-17.1	-14.4	-16.0	-17.9	-18.9	-26.1	-28.5	-30.0	-22.3	-22.2	-23.7
Kazakhstan	...	0.7	11.9	4.4	8.1	11.9	15.7	18.1	18.1	14.4	25.1	13.0	19.4	25.4
Kyrgyz Republic	...	-8.2	0.3	2.0	-4.6	-6.9	-7.7	-17.0	-31.3	-33.6	-36.6	-23.9	-25.1	-27.5
Pakistan	-6.3	-4.3	-2.0	-1.9	-0.4	-0.4	-1.3	-4.1	-6.7	-6.8	-10.3	-8.1	-6.6	-5.0
Tajikistan	...	...	-9.5	-10.6	-10.1	-7.7	-6.5	-14.0	-23.8	-41.9	-41.2	-34.8	-50.7	-54.8
Turkmenistan	...	7.5	15.5	7.6	11.8	7.8	5.0	11.6	18.2	17.7	23.6	-9.0	-2.6	...
Uzbekistan	...	2.3	3.6	2.6	3.3	8.2	10.0	10.5	10.4	10.3	8.6	4.9	6.3	6.1
<b>East Asia</b>														
China, People's Rep. of	2.3	2.5	2.9	2.6	3.0	2.7	3.1	5.9	8.0	9.0	8.0	5.0	4.3	3.3
Hong Kong, China	...	...	-4.8	-5.0	-3.1	-3.6	-5.6	-4.3	-7.4	-9.5	-10.7	-12.8	-19.1	-23.1
Korea, Rep. of	-0.9	-0.8	3.5	2.6	2.6	3.7	5.5	3.9	3.3	3.5	0.6	4.5	4.0	2.8
Mongolia	-25.3	2.1	-7.7	-9.9	-14.0	-15.7	-5.5	-4.3	4.0	-1.2	-11.2	-4.1	-2.9	-10.8
Taipei, China	9.0	4.8	4.2	7.0	8.3	8.4	5.1	5.3	6.4	7.7	4.6	8.1	6.2	5.9
<b>South Asia</b>														
Bangladesh	-6.5	-6.2	-4.1	-4.4	-3.7	-4.3	-4.1	-5.7	-4.7	-5.0	-6.7	-5.3	-5.2	-6.8
Bhutan	-9.5	-9.0	-16.1	-18.0	-18.3	-14.8	-15.2	-30.9	-15.2	5.1	-5.9	-7.9	-22.8	-32.5
India	-2.9	-3.1	-2.7	-2.4	-2.1	-2.3	-4.7	-6.2	-6.5	-7.6	-9.3	-8.8	-5.9	-9.8
Maldives	...	-37.8	-37.4	-29.9	-26.1	-27.6	-36.3	-50.4	-46.0	-48.8	-49.7	-39.2	-41.8	...
Nepal	-11.9	-20.3	-14.8	-13.8	-11.8	-14.0	-14.4	-14.4	-16.9	-16.7	-20.5	-21.4	-25.4	-24.2
Sri Lanka	-8.9	-11.6	-10.8	-7.2	-8.2	-8.1	-10.9	-10.3	-11.9	-11.3	-14.7	-7.4	-10.5	-16.4
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	8.7	...	45.7	38.1	48.3	47.4	50.7	52.6	46.5	54.5	45.6	56.7	60.4
Cambodia	-5.5	-9.7	-14.7	-13.1	-13.8	-12.5	-12.7	-16.1	-14.8	-14.7	-15.3	-14.4	-14.1	-12.5
Indonesia	4.7	3.2	15.2	14.1	12.0	10.5	7.8	6.1	8.1	7.6	4.5	5.6	4.4	4.2
Lao PDR	-12.3	-15.8	-12.5	-11.5	-8.3	-6.3	-14.7	-12.1	-5.0	-3.4	-5.9	-7.3	-4.6	...
Malaysia	6.0	0.0	22.2	19.8	18.8	23.3	22.1	23.7	23.0	19.5	22.3	19.9	16.9	17.0
Myanmar	-1.2	-0.8	-0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	...
Philippines	-9.1	-12.1	-7.4	-8.2	-6.8	-7.0	-6.2	-7.5	-5.5	-5.6	-7.4	-5.3	-5.5	-6.9
Singapore	-4.2	11.9	17.5	22.8	24.2	37.8	34.7	37.2	34.4	32.1	21.9	25.5	27.7	26.0
Thailand	-11.1	-8.7	4.3	2.1	2.0	2.5	0.8	1.8	6.2	10.2	6.0	11.7	9.3	6.4
Viet Nam	-0.6	-11.3	1.2	1.5	-3.0	-6.5	-4.9	-4.6	-4.6	-14.7	-14.0	-7.8	-4.8	-0.4
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	-16.8	-11.9	-14.0	-16.2	-17.5	-16.9	-21.1	-25.8	-31.3	-26.8	-32.9	-23.9	-24.3	-21.5
Kiribati	-100.2	-47.8	-47.2	-50.5	-58.5	-52.7	-56.4	-66.8	-56.0	-46.9	-48.9	-49.9	-47.3	...
Marshall Islands	-66.2	-48.9	-56.3	-56.2	-39.5	-45.6	-40.6	-44.8	-44.7	-46.5	-45.7	-48.4	-57.3	...
Micronesia, Fed. States of	-66.9	-39.8	-38.1	-39.7	-37.5	-39.4	-45.6	-42.8	-43.5	-40.5	-45.3	-45.6	-42.9	-41.4
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	-77.6	-53.7	-47.4	-48.6	-55.1	-47.0	-48.4	-45.5	-55.0	-41.5	-44.9	-53.2
Papua New Guinea	2.8	29.1	31.4	28.5	18.4	27.5	26.3	36.0	40.0	33.3	33.4	18.8	22.4	21.7
Samoa	-54.7	-41.6	-120.7	-153.3	-142.9	-37.6	-37.3	-40.3	-46.1	-38.6	-44.3	-37.3	-45.0	-46.4
Solomon Islands	-3.9	4.2	-8.1	-12.7	4.5	1.8	9.1	-5.6	-22.6	-22.8	-15.4	-13.0	-20.6	-0.4
Timor-Leste	...	...	...	...	...	...	...	...	...	-3.3	-5.9	-6.7	-11.0	-10.2
Tonga	-34.6	-27.5	-27.3	-29.7	-24.0	-27.3	-28.7	-33.7	-36.1	-31.6	-36.2	-39.1	-27.6	-26.3
Tuvalu	-52.3	-67.1	-65.1	-69.9	-91.5	-101.0	...	...	-40.2	-42.8	-58.5	-57.4	-55.2	-50.4
Vanuatu	-43.5	-22.4	-17.7	-21.7	-25.2	-19.9	-19.7	-22.6	-25.3	-29.6	-33.7	-32.9	-27.8	-22.0
<b>Developed Member Economies</b>														
Australia	0.1	-1.2	-1.2	0.5	-1.3	-2.9	-2.8	-1.9	-1.3	-2.0	-0.3	-0.3	1.5	2.0
Japan	2.3	2.5	2.4	1.7	2.3	2.4	2.8	2.1	1.9	2.4	0.8	0.9	1.7	-0.3
New Zealand	2.1	0.8	1.8	1.8	0.5	-0.8	-1.5	-2.6	-1.7	-1.0	-0.8	1.4	1.8	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## Balance of Payments

Table 4.2 **Trade in Services Balance**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan <sup>a</sup>	...	...	...	...	-3.6	-9.0	-8.1	-8.2	-6.3	-4.1	-2.2	-2.9	-2.5	...
Armenia	...	-1.9	-2.9	-0.8	-1.7	-2.5	-2.8	-2.5	-2.1	-2.3	-2.8	-3.1	-2.6	-3.0
Azerbaijan	...	-5.5	-4.3	-6.6	-15.0	-22.2	-25.8	-14.9	-9.2	-6.4	-4.8	-3.6	-3.3	-4.7
Georgia	...	...	2.1	1.9	1.3	1.5	1.4	1.3	2.0	1.6	0.2	3.2	4.4	5.1
Kazakhstan	...	-1.4	-4.4	-6.2	-8.1	-6.6	-7.2	-9.2	-7.3	-7.8	-5.0	-5.0	-4.8	-3.4
Kyrgyz Republic	...	-10.5	-6.3	-2.7	-0.3	-0.1	-0.6	-1.3	-2.9	2.1	-1.9	-0.1	-4.8	-0.4
Pakistan	-1.6	-1.8	-1.2	-1.3	0.3	-0.4	-2.7	-3.5	-3.9	-3.5	-3.7	-1.6	-0.3	-1.4
Tajikistan	...	...	...	...	-2.9	-2.1	-4.3	-4.5	-9.2	-11.9	-5.3	-2.2	-3.3	...
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan <sup>b</sup>	...	-2.7	-0.5	-1.9	-1.8	-2.7	-2.8	-1.1	-0.1	0.1	0.8	0.5	2.6	...
<b>East Asia</b>														
China, People's Rep. of	0.4	-0.8	-0.5	-0.4	-0.5	-0.5	-0.5	-0.4	-0.3	-0.2	-0.3	-0.6	-0.4	...
Hong Kong, China	...	...	9.3	9.7	11.4	12.9	14.5	16.7	18.8	20.3	21.0	20.3	24.6	27.0
Korea, Rep. of	-0.1	-0.5	-0.4	-0.6	-1.1	-0.9	-0.8	-1.2	-1.4	-1.1	-0.6	-0.8	-0.8	-0.4
Mongolia	...	-3.1	-9.0	-9.0	-7.4	-3.4	-9.1	-2.7	-1.1	2.6	-2.0	-3.1	-4.7	-13.6
Taipei, China	-3.3	-3.3	-2.0	-1.6	-1.0	-0.8	-1.5	-1.8	-0.9	-0.4	0.5	0.5	0.6	0.9
<b>South Asia</b>														
Bangladesh	-1.1	-2.2	-1.8	-1.7	-1.2	-1.4	-1.5	-1.7	-1.7	-1.8	-2.1	-1.6	-2.0	-2.4
Bhutan <sup>c</sup>	...	-2.3	-3.5	0.6	-4.0	-12.4	-9.4	-6.9	-2.2	0.2	-5.8	-3.9	-5.2	...
India	-0.5	-1.0	-0.5	-0.6	-0.3	-0.2	0.4	0.6	1.2	1.3	1.5	0.9	0.4	...
Maldives	...	39.1	38.2	30.4	30.4	32.8	32.6	11.1	24.6	24.6	19.6	19.2	22.3	...
Nepal	1.0	8.1	5.3	3.4	1.2	1.6	1.0	-0.7	-1.2	-1.9	-1.1	-1.1	-1.2	0.4
Sri Lanka	-2.5	-2.9	-4.1	-2.5	-1.8	-1.4	-1.8	-2.2	-2.7	-2.6	-2.5	-1.5	-1.3	-1.6
<b>Southeast Asia</b>														
Brunei Darussalam <sup>d</sup>	...	...	...	-10.2	-7.7	-9.1	-6.8	-5.2	-4.1	-4.1	-3.7	-4.8	...	...
Cambodia	...	-2.1	2.8	4.5	5.3	2.4	5.4	7.6	6.8	7.3	5.9	5.8	5.8	...
Indonesia	-3.1	-4.0	-6.3	-6.5	-5.3	-5.2	-3.4	-3.2	-2.7	-2.7	-2.5	-1.8	-1.3	-1.4
Lao PDR	-0.3	-1.4	8.1	8.2	8.4	4.9	6.2	6.1	5.3	5.6	5.6	4.7	3.6	...
Malaysia	-3.7	-3.8	-3.0	-2.4	-1.6	-3.6	-1.7	-1.7	-1.2	0.4	0.0	0.6	0.2	-0.9
Myanmar	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...
Philippines	3.3	3.3	-2.3	-3.0	-2.5	-2.3	-1.9	-1.3	0.1	1.5	0.7	1.3	1.4	1.6
Singapore	10.7	7.0	-1.6	-4.0	-3.0	-2.4	-1.3	0.4	0.8	5.9	6.3	7.7	7.0	...
Thailand	0.1	-2.4	-1.3	-1.3	-1.0	-1.6	-2.3	-3.6	-3.6	-3.0	-4.4	-2.3	-3.1	...
Viet Nam	...	...	-1.8	-1.8	-2.1	-2.0	-1.9	-0.6	0.0	-1.1	-1.0	-2.5	-2.3	-2.4
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	11.9	8.4	6.1	7.3	12.5	10.1	8.3	11.5	9.4	9.8	10.6	8.9	11.1	...
Kiribati	-45.4	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands <sup>e</sup>	9.7	5.3	6.0	5.0	6.7	4.3	2.7	1.8	3.5	3.1	2.8	-8.3	-4.7	...
Micronesia, Fed. States of <sup>a</sup>	...	-9.0	-12.5	-14.1	-13.0	-14.2	-12.4	-10.5	-8.6	-6.1	-10.4	-12.1	-10.2	-9.4
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau <sup>a</sup>	...	...	29.5	34.7	32.0	44.3	50.9	24.9	21.5	28.2	26.6	28.8	34.7	45.7
Papua New Guinea	-6.1	-6.6	-15.1	-12.3	-22.0	-19.7	-21.4	-20.0	-23.0	-25.1	-18.4	-20.4	-25.2	...
Samoa	9.7	10.2	...	...	...	...	13.7	13.2	16.9	10.8	11.1	13.4	12.0	14.4
Solomon Islands	-28.5	-10.7	-7.1	-10.9	-14.4	-15.4	-3.8	-5.4	-4.1	-8.8	-10.7	-6.2	-12.1	...
Timor-Leste	...	...	...	...	...	...	...	...	-7.2	-9.1	-10.1	-15.8	-10.9	...
Tonga	2.6	...	...	-4.8	-5.1	-4.8	-6.1	-1.9	-4.5	-5.3	-5.0	-4.1	...	...
Tuvalu <sup>a</sup>	17.4	11.4	-51.4	-45.7	-31.3	-36.4	...	...	5.6	11.7	-6.1	21.2	-3.9	-26.1
Vanuatu	24.1	20.4	21.2	17.3	15.5	15.4	15.1	16.0	16.5	20.2	...	...	...	...
<b>Developed Member Economies</b>														
Australia	-1.1	-0.2	0.3	0.2	0.3	0.3	0.1	0.1	0.1	0.1	-0.3	-0.1	-0.3	...
Japan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand	-1.9	-0.3	-0.1	0.2	1.0	1.4	1.0	0.4	0.3	0.2	-0.3	0.1	-0.2	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Includes income.

b Includes other goods and income starting 2003.

c Prior to 2000, services, income, and transfer receipts and payments were grouped as service transfer receipts and service transfer payments.

d Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

e Includes other goods and income.

Sources: Country sources, International Financial Statistics Online (IMF 2012).

## Balance of Payments

Table 4.3 **Current Account Balance**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	-3.5	-9.2	-4.7	-2.7	-5.0	0.8	0.9	-2.8	1.7	...
Armenia	...	-17.0	-14.6	-9.4	-6.2	-6.8	-0.5	-1.1	-1.8	-6.4	-11.8	-15.8	-14.8	-11.0
Azerbaijan	...	-16.6	-3.2	-0.9	-12.3	-27.8	-29.8	1.3	17.7	27.3	33.7	23.0	28.4	27.0
Georgia	...	...	-5.3	-6.6	-6.4	-9.6	-6.9	-11.1	-15.2	-19.8	-22.1	-10.6	-10.3	-11.7
Kazakhstan	...	-1.3	2.0	-6.3	-4.2	-0.9	0.8	-1.8	-2.5	-7.9	4.7	-3.6	1.6	7.6
Kyrgyz Republic	...	-15.7	-5.7	-1.2	-1.8	-2.2	1.3	-1.4	-9.3	-5.9	-13.7	-2.2	-8.0	-4.1
Pakistan	-3.4	-3.7	-0.3	0.5	3.7	4.8	1.9	-1.4	-3.9	-4.8	-9.5	-5.9	-2.3	0.1
Tajikistan	...	...	-7.2	-5.6	-1.4	-0.3	-2.8	-0.8	-1.5	-13.3	0.9	-3.6	-15.9	-11.8
Turkmenistan	...	2.4	36.3	7.2	32.0	14.0	3.2	27.6	91.3	82.3	153.7	-123.7	-28.2	...
Uzbekistan	...	-0.2	1.6	-1.6	1.2	8.7	10.1	14.2	17.2	19.1	17.4	12.6	6.6	8.1
<b>East Asia</b>														
China, People's Rep. of	3.1	0.2	1.7	1.3	2.4	2.8	3.6	5.9	8.4	9.7	9.0	5.2	5.0	3.7
Hong Kong, China	...	...	4.1	5.9	7.6	10.4	9.5	11.4	12.1	12.3	13.7	8.6	5.5	5.1
Korea, Rep. of	-0.5	-1.5	2.8	1.7	1.3	2.4	4.5	2.2	1.5	2.1	0.3	3.9	2.9	2.4
Mongolia	-32.6	3.2	-7.4	-6.1	-9.4	-6.6	3.5	3.8	10.9	4.1	-12.3	-7.5	-14.3	-30.0
Taipei, China	6.6	2.0	2.7	6.4	8.8	9.8	5.8	4.8	7.0	8.9	6.9	11.4	9.3	8.8
<b>South Asia</b>														
Bangladesh	-1.5	-1.8	-0.9	-2.4	0.3	0.3	0.3	-1.0	1.3	1.4	0.9	2.7	3.7	0.9
Bhutan	-9.3	-11.3	5.5	-8.8	-14.9	-21.8	-17.6	-29.2	-4.7	15.8	-2.3	-1.2	-10.8	-22.2
India	-3.0	-1.6	-0.6	0.7	1.3	2.4	-0.3	-1.2	-1.0	-1.3	-2.2	-2.8	-2.3	-4.0
Maldives	...	-4.6	-8.2	-7.4	-4.4	-3.3	-11.6	-27.9	-23.5	-29.0	-36.2	-24.0	-24.2	...
Nepal	-7.7	-5.2	-2.3	-2.5	4.0	2.3	2.7	1.9	2.2	-0.1	3.1	4.2	-2.4	-0.9
Sri Lanka	-4.7	-6.1	-6.4	-1.3	-1.4	-0.3	-3.1	-2.7	-5.3	-4.3	-9.5	-0.5	-2.9	-7.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	51.3	...	31.7	26.2	47.7	48.3	52.7	56.4	51.1	54.4	40.2	48.5	53.5
Cambodia	-3.5	-3.1	-2.7	-1.1	-2.3	-3.6	-2.2	-3.6	-3.6	-4.9	-7.9	-7.5	-6.9	-3.8
Indonesia	-2.6	-3.2	4.8	4.3	4.0	3.5	0.6	0.1	3.0	2.4	0.0	1.9	0.9	0.2
Lao PDR	-9.6	-7.5	-0.3	-4.2	0.2	-2.2	-8.0	-7.1	1.2	1.8	1.7	-1.1	0.4	...
Malaysia	-2.1	-9.8	9.0	7.9	8.0	12.1	12.1	14.4	16.1	15.4	17.1	15.8	11.1	11.1
Myanmar	-1.8	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...
Philippines	-5.8	-4.4	-2.7	-2.3	-0.3	0.3	1.8	1.9	4.4	4.8	2.1	5.6	4.5	3.1
Singapore	8.0	16.4	10.8	12.8	13.1	22.9	17.1	21.4	24.5	25.8	13.9	16.2	24.4	21.9
Thailand	-8.1	-7.8	7.4	4.3	3.5	3.1	1.6	-4.1	1.0	6.0	0.7	7.8	3.9	3.2
Viet Nam	-4.0	-9.0	3.6	2.1	-1.7	-4.9	-2.1	-1.1	-0.3	-10.0	-11.9	-6.8	-4.0	0.2
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	-3.3	-0.9	-1.6	-4.1	1.1	-2.2	-9.1	-11.2	-19.7	-15.1	-20.6	-10.0	-11.3	-11.3
Kiribati	-37.3	-4.4	-9.6	7.7	-2.4	-18.0	-10.8	-34.4	-17.7	-19.3	-16.9	-25.7	-22.7	...
Marshall Islands	34.2	-22.1	-19.9	-14.8	-2.3	-9.9	-3.9	-6.0	-3.2	-2.0	-2.2	-17.0	-24.6	...
Micronesia, Fed. States of	18.5	-9.0	-13.3	-16.0	-8.5	-3.8	-16.2	-6.8	-11.6	-7.3	-15.6	-18.9	-15.5	-17.1
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	-23.8	-16.5	-13.2	-3.7	-3.7	-18.9	-17.8	-6.2	-17.7	-1.4	2.0	4.1
Papua New Guinea	-2.9	13.9	10.1	8.8	-4.2	3.8	2.9	12.5	8.0	2.9	10.0	-7.2	-6.7	-0.4
Samoa	7.5	4.1	-3.3	-36.2	-22.2	-8.1	-6.9	-10.7	-16.4	-8.0	-8.3	-0.9	-10.9	-13.0
Solomon Islands	-14.8	2.5	-12.9	-12.0	-3.1	2.2	15.2	-1.9	-11.8	-18.9	-23.3	-22.5	-31.7	-8.7
Timor-Leste	...	...	...	...	...	...	...	...	19.6	40.9	45.8	40.3	41.6	...
Tonga	10.8	-10.7	-5.2	-8.1	4.0	-2.4	3.2	-2.2	-7.8	-8.3	-8.9	-7.5	-4.6	-8.4
Tuvalu	18.4	5.0	54.7	-28.8	11.0	-63.7	...	...	-1.6	-1.8	-15.0	34.4	-3.9	-26.1
Vanuatu	-4.1	-8.0	-4.9	-5.4	-10.1	-8.9	-4.3	-3.4	-5.8	-10.0	-7.0	-8.3	-6.0	-7.0
<b>Developed Member Economies</b>														
Australia	-3.8	-5.0	-3.9	-2.1	-3.8	-5.5	-6.3	-5.9	-5.5	-6.5	-4.5	-4.3	-3.0	-2.3
Japan	1.5	2.1	2.5	2.1	2.8	3.2	3.7	3.6	3.9	4.9	3.3	2.9	3.7	2.0
New Zealand	-3.1	-5.3	-3.7	-2.6	-3.1	-4.3	-6.1	-8.6	-7.9	-7.9	-8.0	-1.9	-3.6	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## Balance of Payments

Table 4.4 **Workers' Remittances and Compensation of Employees, Receipts**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	65	87	94	131	168	435	498	658	846	1062	769	996	1254
Azerbaijan	...	3	57	104	182	171	228	693	813	1287	1554	1274	1432	1885
Georgia	...	...	209	222	230	236	303	346	485	695	732	714	806	1017
Kazakhstan	...	116	122	171	205	148	166	178	186	223	192	261	291	270
Kyrgyz Republic	...	1	9	11	37	78	189	322	481	715	1232	992	1275	1500
Pakistan	2006	1712	1075	1461	3554	3964	3945	4280	5121	5998	7039	8717	9690	12264
Tajikistan	...	...	...	...	79	146	252	467	1019	1691	2544	1748	2254	2680
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	196	891	4822	6539	10293	14542	19578	23478	27440	38587	48407	48852	53038	62497
Hong Kong, China	...	...	136	153	121	120	240	297	294	317	355	348	340	356
Korea, Rep. of	2413	3491	4858	4832	5530	6304	6570	6509	6180	6812	10732	8913	8708	9257
Mongolia	...	...	12	25	56	129	203	180	181	178	225	200	277	353
Taipei, China	...	142	274	275	273	261	278	323	355	430	454	455	500	613
<b>South Asia</b>														
Bangladesh	779	1202	1968	2105	2858	3192	3584	4315	5428	6562	8941	10521	10850	11997
Bhutan	...	...	...	...	...	...	...	...	2	3	4	5	6	6
India	2384	6223	12883	14273	15736	20999	18750	22125	28334	37217	49977	49468	54035	63663
Maldives	2	2	2	2	2	2	3	2	3	3	3	4	4	4
Nepal	...	57	111	147	678	771	823	1212	1453	1734	2727	2986	3469	4070
Sri Lanka	401	809	1166	1185	1309	1438	1590	1991	2185	2527	2947	3363	4155	5194
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	12	121	133	140	138	177	200	297	353	325	338	321	354
Indonesia	166	651	1190	1046	1259	1489	1866	5420	5722	6174	6794	6793	6916	6924
Lao PDR	11	22	1	1	1	1	1	1	4	6	18	38	42	45
Malaysia	185	116	342	367	435	571	802	1117	1365	1556	1329	1131	1102	1235
Myanmar	6	81	104	117	106	85	118	131	116	82	55	55	116	119
Philippines	1465	5360	6961	8769	9735	10243	11471	13566	15251	16302	18642	19765	21423	22974
Singapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	973	1695	1697	1252	1380	1607	1622	1187	1333	1635	1898	2776	3580	3994
Viet Nam	...	...	1340	1100	1770	2100	2310	3150	3800	6180	6805	6020	8260	8600
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	22	33	44	83	99	124	173	185	185	160	123	154	158	177
Kiribati	5	7	7	7	7	7	7	7	7	7	9	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	5	16	7	6	6	7	10	7	4	8	15	12	11	11
Samoa	43	41	45	45	45	45	1	1	1	97	111	119	122	129
Solomon Islands	...	...	4	5	4	4	9	7	2	2	2	2	2	2
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	24	...	...	53	66	60	69	69	79	101	94	72	72	66
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	8	14	35	53	4	4	5	5	5	6	6	6	6	...
<b>Developed Member Economies</b>														
Australia	2370	1651	1903	1783	1772	2326	2837	2990	3131	3826	4713	1340	1601	1700
Japan	...	1151	1374	1984	1821	1078	931	1080	1380	1577	1929	1776	1802	1931
New Zealand	762	1652	236	841	1148	1065	958	739	650	654	641	628	843	1009
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>11094</b>	<b>22761</b>	<b>39689</b>	<b>44634</b>	<b>56330</b>	<b>69154</b>	<b>75775</b>	<b>92268</b>	<b>108791</b>	<b>138493</b>	<b>175355</b>	<b>176869</b>	<b>194257</b>	<b>223510</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>14226</b>	<b>27215</b>	<b>43202</b>	<b>49242</b>	<b>61072</b>	<b>73623</b>	<b>80502</b>	<b>97077</b>	<b>113951</b>	<b>144550</b>	<b>182637</b>	<b>180614</b>	<b>198503</b>	<b>228151</b>
<b>WORLD</b>	<b>64241</b>	<b>98629</b>	<b>131378</b>	<b>146167</b>	<b>171800</b>	<b>207556</b>	<b>239551</b>	<b>276933</b>	<b>320900</b>	<b>393877</b>	<b>457182</b>	<b>428533</b>	<b>453051</b>	<b>500619</b>

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b For reporting economies only.

Sources: Migration and Remittances website (World Bank 2012); for Taipei, China: economy sources.

## Balance of Payments

Table 4.5 **Workers' Remittances and Compensation of Employees, Receipts**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	5.1	4.6	4.5	5.5	6.0	12.1	10.2	10.3	9.2	9.1	8.9	10.8	12.4
Azerbaijan	...	0.1	1.1	1.8	2.9	2.3	2.6	5.2	3.9	3.9	3.2	2.9	2.7	3.0
Georgia	...	...	6.9	6.9	6.8	5.9	5.9	5.4	6.3	6.8	5.7	6.6	6.9	7.1
Kazakhstan	...	0.7	0.7	0.8	0.8	0.5	0.4	0.3	0.2	0.2	0.1	0.2	0.2	0.1
Kyrgyz Republic	...	0.1	0.6	0.7	2.3	4.1	8.5	13.1	17.0	18.8	24.0	21.1	26.6	25.3
Pakistan	5.7	2.9	1.5	2.1	4.8	4.7	4.1	3.9	4.0	4.2	4.8	5.6	5.6	5.9
Tajikistan	...	...	...	...	6.4	9.4	12.1	20.2	36.0	45.5	49.3	35.1	40.0	41.1
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	0.0	0.1	0.4	0.5	0.7	0.9	1.0	1.0	1.0	1.1	1.1	1.0	0.9	0.9
Hong Kong, China	...	...	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Korea, Rep. of	0.4	0.7	0.9	1.0	1.0	1.0	0.9	0.8	0.6	0.6	1.2	1.1	0.9	0.8
Mongolia	...	...	1.3	2.5	5.1	8.9	11.2	7.8	5.3	4.2	4.0	4.4	4.5	4.1
Taipei, China	...	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>South Asia</b>														
Bangladesh	2.7	3.2	4.3	4.6	6.1	6.2	6.4	7.5	9.0	9.6	11.2	11.8	10.9	11.2
Bhutan	...	...	...	...	...	...	...	...	0.2	0.2	0.3	0.4	0.4	...
India	0.8	1.7	2.8	3.0	3.1	3.6	2.6	2.6	3.0	3.1	3.9	3.7	3.2	3.4
Maldives	...	0.6	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nepal	...	1.3	1.9	2.5	11.5	11.9	11.3	14.7	16.2	15.8	23.3	23.4	21.3	22.0
Sri Lanka	5.1	6.3	7.0	7.4	7.7	7.6	7.7	8.2	7.7	7.8	7.2	8.0	8.4	8.8
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	0.3	3.3	3.3	3.3	3.0	3.3	3.2	4.1	4.1	3.1	3.2	2.9	2.8
Indonesia	0.1	0.3	0.7	0.7	0.6	0.6	0.7	1.9	1.6	1.4	1.3	1.3	1.0	0.8
Lao PDR	1.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.7	0.6	...
Malaysia	0.4	0.1	0.4	0.4	0.4	0.5	0.6	0.8	0.8	0.8	0.6	0.6	0.4	0.4
Myanmar	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...
Philippines	3.3	7.2	8.6	11.5	12.0	12.2	12.6	13.2	12.5	10.9	10.7	11.7	10.7	10.2
Singapore	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thailand	1.1	1.0	1.3	1.0	1.0	1.1	0.9	0.6	0.6	0.6	0.7	1.0	1.0	1.1
Viet Nam	...	...	4.3	3.4	5.0	5.3	5.1	6.0	6.2	8.7	7.5	6.2	7.8	7.0
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	1.6	1.7	2.6	5.0	5.4	5.4	6.4	6.2	6.0	4.7	3.4	5.3	5.0	4.6
Kiribati	21.3	12.2	10.3	11.0	9.4	7.5	6.8	6.6	6.7	5.6	6.9	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Samoa	38.4	20.2	19.5	18.8	17.0	14.0	0.2	0.2	0.2	17.6	20.5	22.9	20.5	19.3
Solomon Islands	...	...	1.5	1.7	1.7	1.6	3.1	2.3	0.5	0.5	0.3	0.4	0.2	0.2
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	20.4	...	...	31.4	36.5	29.1	28.8	26.1	26.9	33.1	27.8	21.9	19.2	14.5
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.4	5.9	12.3	19.7	1.5	1.2	1.3	1.3	1.1	1.0	0.9	0.9	0.9	...
<b>Developed Member Economies</b>														
Australia	0.7	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.1	0.1	0.1
Japan	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Zealand	1.7	2.7	0.4	1.6	1.9	1.3	1.0	0.7	0.6	0.5	0.5	0.5	0.6	...
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>0.8</b>	<b>0.8</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.1</b>	<b>1.2</b>	<b>1.1</b>	<b>1.0</b>	<b>1.6</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>0.8</b>	<b>0.3</b>	<b>0.5</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.8</b>	<b>0.9</b>	<b>0.8</b>	<b>0.8</b>	<b>1.1</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b For reporting economies only.

Sources: ADB staff estimates based on the Migration and Remittances website (World Bank 2012); for Taipei, China: economy sources.

## Balance of Payments

Table 4.6 **Foreign Direct Investment, Net Inflows**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	0	0	1	50	58	187	271	238	243	300	185	76	...
Armenia	...	25	104	70	111	121	248	239	453	699	935	777	570	525
Azerbaijan	...	330	130	227	1392	3285	3556	1680	-584	-4749	15	473	563	1465
Georgia	...	...	131	110	160	335	492	453	1170	1750	1564	658	817	973
Kazakhstan	...	964	1283	2835	2590	2092	4157	1971	6278	11119	14322	13243	10768	12910
Kyrgyz Republic	...	96	-2	5	5	46	175	43	182	208	377	189	438	391
Pakistan	245	723	308	383	823	534	1118	2201	4273	5590	5438	2338	2018	1309
Tajikistan	...	...	...	...	36	32	272	54	339	360	376	16	16	...
Turkmenistan	...	233	131	170	276	226	354	418	731	856	1277	3867	2083	...
Uzbekistan	...	-24	75	83	65	83	177	192	174	705	711	711	822	...
<b>East Asia</b>														
China, People's Rep. of	3487	35849	38399	44241	49308	47077	54936	117208	124082	160052	175148	114215	185081	220100
Hong Kong, China	...	...	61924	23776	9682	13624	34032	33618	45054	54365	59614	52395	71066	83174
Korea, Rep. of	789	1776	9283	3528	2392	3526	9246	6309	3586	1784	3311	2249	1094	4661
Mongolia	0	10	54	43	78	132	93	185	344	373	845	624	1691	4715
Taipei, China	-3913	1559	4928	4109	1445	453	1898	1625	7424	7769	5432	2805	2492	-1962
<b>South Asia</b>														
Bangladesh	3	2	280	79	52	268	449	813	697	653	1010	713	917	794
Bhutan	...	...	...	...	...	...	...	...	6	74	3	7	19	16
India	0	2144	3584	5472	5626	4323	5771	7606	20336	25483	43406	35596	24159	23364
Maldives	6	7	22	21	25	32	53	53	64	91	135	112	164	...
Nepal	0	0	0	0	-6	15	0	2	-7	6	1	38	88	94
Sri Lanka	43	56	173	172	197	229	233	272	480	603	752	404	478	956
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	61	230	124	113	175	88	258	222	326	...	...
Cambodia	...	151	149	149	145	84	131	381	483	867	815	539	783	...
Indonesia	1093	4346	-4550	-2977	145	-597	1896	8336	4914	6928	9318	4877	13771	18160
Lao PDR	6	95	34	24	4	19	17	28	187	324	228	319	279	...
Malaysia	2332	4178	3788	554	3203	2473	4624	3966	6076	8590	7376	1387	9167	10779
Myanmar	163	280	258	210	152	251	214	237	279	717	873	1090	910	...
Philippines	530	1478	2240	195	1542	491	688	1854	2921	2916	1544	1963	1298	1262
Singapore	5575	11535	16484	15087	6402	11941	21026	15460	29348	37033	8588	15279	38638	...
Thailand	2444	2068	3366	5067	3342	5232	5860	8055	9455	11327	8538	4854	9679	...
Viet Nam	180	1780	1298	1300	1400	1450	1610	1954	2400	6700	9579	7600	8000	7430
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	92	70	1	41	31	40	251	156	412	338	309	56	196	...
Kiribati	0	0	1	0	1	1	1	5	1	1	3	3	4	...
Marshall Islands	1	-5	125	-1	-47	5	4	7	6	12	6	8	9	...
Micronesia, Fed. States of	...	...	0	0	0	0	0	0	1	17	6	8	10	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	1	0	15	11	1	2	7	1	1	3	2	2	2	...
Papua New Guinea	155	455	96	63	18	118	31	38	13	102	-30	423	29	...
Samoa	0	0	...	...	...	...	2	-3	21	7	46	10	1	12
Solomon Islands	10	2	13	-9	0	-2	6	19	34	64	95	120	238	...
Timor-Leste	...	...	...	...	...	...	...	...	8	9	40	50	27	...
Tonga	0	1	5	1	0	3	5	7	10	28	4	0	16	...
Tuvalu	...	0	-1	1	25	0	0	0	5	0	2	2	2	...
Vanuatu	13	31	20	18	14	18	20	13	43	34	38	32	42	58
<b>Developed Member Economies</b>														
Australia	8111	12026	13618	8261	16992	8024	36827	-35601	26415	41076	47281	27246	30576	...
Japan	1777	39	8227	6191	9087	6238	7807	3214	-6784	22180	24552	11834	-1359	-1702
New Zealand	1735	3316	3841	-299	1481	2267	2340	1564	4562	3191	4890	-719	701	3355
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>13256</b>	<b>70215</b>	<b>144148</b>	<b>105056</b>	<b>90685</b>	<b>98018</b>	<b>153839</b>	<b>215728</b>	<b>271938</b>	<b>344051</b>	<b>362350</b>	<b>270238</b>	<b>388518</b>	<b>391187</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>24879</b>	<b>85597</b>	<b>169834</b>	<b>119269</b>	<b>118475</b>	<b>114671</b>	<b>200927</b>	<b>185079</b>	<b>296220</b>	<b>410755</b>	<b>439295</b>	<b>308924</b>	<b>418437</b>	<b>392840</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b For reporting economies only.

Sources: International Financial Statistics Online (IMF 2012); World Development Indicators Online (World Bank 2012); for Taipei, China: country sources.



## Balance of Payments

Table 4.7 **Foreign Direct Investment, Net Inflows**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	1.2	1.2	3.3	4.1	3.2	2.3	2.8	1.5	0.5	...
Armenia	...	2.0	5.5	3.3	4.7	4.3	6.9	4.9	7.1	7.6	8.0	9.0	6.2	5.2
Azerbaijan	...	13.7	2.5	4.0	22.3	45.1	41.0	12.7	-2.8	-14.4	0.0	1.1	1.1	2.3
Georgia	...	...	4.3	3.4	4.7	8.4	9.6	7.1	15.1	17.2	12.2	6.1	7.0	6.8
Kazakhstan	...	5.8	7.0	12.8	10.5	6.8	9.6	3.5	7.8	10.6	10.7	11.5	7.3	6.9
Kyrgyz Republic	...	6.4	-0.2	0.3	0.3	2.4	7.9	1.7	6.4	5.5	7.3	4.0	9.1	6.6
Pakistan	0.7	1.2	0.4	0.6	1.1	0.6	1.2	2.0	3.4	3.9	3.7	1.5	1.2	0.6
Tajikistan	...	...	...	...	3.0	2.0	13.1	2.4	12.0	9.7	7.3	0.3	0.3	...
Turkmenistan	...	4.0	2.7	2.5	3.2	2.0	2.5	2.4	3.4	3.3	6.7	19.4	9.0	...
Uzbekistan	...	-0.2	0.5	1.2	0.7	0.8	1.5	1.4	1.0	3.2	2.4	2.1	2.1	...
<b>East Asia</b>														
China, People's Rep. of	0.9	4.9	3.2	3.3	3.4	2.9	2.8	5.2	4.6	4.6	3.9	2.3	3.1	3.0
Hong Kong, China	...	...	36.6	14.3	5.9	8.6	20.5	18.9	23.7	26.3	27.7	25.0	31.7	34.2
Korea, Rep. of	0.3	0.3	1.7	0.7	0.4	0.5	1.3	0.7	0.4	0.2	0.4	0.3	0.1	0.4
Mongolia	...	0.8	5.7	4.2	7.0	9.1	5.1	8.0	10.1	8.8	15.0	13.6	27.3	55.1
Taipei, China	-2.4	0.6	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5
<b>South Asia</b>														
Bangladesh	0.0	0.0	0.6	0.2	0.1	0.5	0.8	1.4	1.2	1.0	1.3	0.8	0.9	0.7
Bhutan	...	...	...	...	...	...	...	...	0.7	6.2	0.2	0.5	1.2	...
India	...	0.6	0.8	1.1	1.1	0.7	0.8	0.9	2.1	2.1	3.4	2.7	1.4	1.2
Maldives	...	1.8	3.6	2.6	3.0	3.3	4.9	5.3	4.9	5.9	7.1	5.8	7.9	...
Nepal	0.0	0.0	0.0	0.0	-0.1	0.2	0.0	0.0	-0.1	0.1	0.0	0.3	0.5	0.5
Sri Lanka	0.5	0.4	1.0	1.1	1.1	1.2	1.1	1.1	1.7	1.9	1.8	1.0	1.0	1.6
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	...	...	...	1.1	3.9	1.9	1.4	1.8	0.8	2.1	1.5	3.0	...	...
Cambodia	...	4.4	4.0	3.8	3.4	1.8	2.5	6.1	6.6	10.0	7.9	5.2	7.0	...
Indonesia	1.0	2.2	-2.8	-1.9	0.1	-0.3	0.7	2.9	1.3	1.6	1.8	0.9	1.9	2.1
Lao PDR	0.7	5.4	2.1	1.4	0.3	1.0	0.7	1.0	5.3	7.7	4.3	5.7	4.1	...
Malaysia	5.3	4.7	4.0	0.6	3.2	2.2	3.7	2.8	3.7	4.4	3.2	0.7	3.7	3.7
Myanmar	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...
Philippines	1.2	2.0	2.8	0.3	1.9	0.6	0.8	1.8	2.4	2.0	0.9	1.2	0.7	0.6
Singapore	14.4	10.1	17.5	16.6	7.1	12.8	21.9	15.8	28.7	34.3	7.5	13.7	32.4	...
Thailand	2.9	1.2	2.7	4.2	2.5	3.4	3.4	4.3	4.3	4.3	2.9	1.7	2.8	...
Viet Nam	2.8	8.6	4.2	4.0	4.0	3.7	3.5	3.7	3.9	9.4	10.5	7.8	7.5	6.0
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	6.9	3.5	0.0	2.5	1.7	1.7	9.2	5.2	13.3	9.9	8.6	1.9	6.2	...
Kiribati	1.2	0.7	1.1	0.8	0.7	1.0	1.1	4.5	0.5	0.9	2.0	2.6	2.6	...
Marshall Islands	...	-4.2	112.8	-0.8	-37.6	3.7	3.1	4.7	4.3	8.1	3.6	5.3	5.3	...
Micronesia, Fed. States of	...	...	0.0	-0.1	0.0	0.0	0.0	0.0	0.2	6.5	2.2	2.7	3.4	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	-0.2	10.0	6.9	0.8	1.0	3.8	0.4	0.6	1.5	0.8	1.0	1.1	...
Papua New Guinea	4.8	9.4	2.7	2.0	0.6	3.2	0.7	0.8	0.2	1.6	-0.4	5.2	0.3	...
Samoa	5.9	0.0	...	...	...	...	0.6	-0.7	4.6	1.2	8.5	1.9	0.2	1.8
Solomon Islands	5.6	0.6	4.6	-3.4	-0.2	-0.8	2.1	6.0	9.4	15.0	17.9	21.0	35.5	...
Timor-Leste	...	...	...	...	...	...	...	...	0.3	0.3	0.9	1.5	0.7	...
Tonga	0.2	0.5	2.5	0.7	-0.2	1.6	1.9	2.7	3.4	9.0	1.2	0.0	4.3	...
Tuvalu	...	0.0	-6.7	4.4	161.0	0.1	0.2	-0.1	20.4	0.5	5.3	8.0	4.5	...
Vanuatu	8.7	13.6	7.2	6.7	5.2	5.5	5.3	3.3	9.6	6.3	6.1	5.4	6.1	7.4
<b>Developed Member Economies</b>														
Australia	2.5	3.3	3.5	2.3	4.1	1.5	5.8	-5.1	3.5	4.5	4.8	2.8	2.6	...
Japan	0.1	0.0	0.2	0.1	0.2	0.1	0.2	0.1	-0.2	0.5	0.5	0.2	0.0	0.0
New Zealand	3.9	5.3	7.2	-0.6	2.4	2.7	2.3	1.4	4.2	2.4	3.8	-0.6	0.5	...
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>1.0</b>	<b>2.6</b>	<b>3.8</b>	<b>2.6</b>	<b>2.0</b>	<b>1.8</b>	<b>2.4</b>	<b>2.8</b>	<b>2.9</b>	<b>2.8</b>	<b>2.5</b>	<b>1.7</b>	<b>2.1</b>	<b>2.9</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>1.5</b>	<b>1.0</b>	<b>1.9</b>	<b>1.4</b>	<b>1.3</b>	<b>1.1</b>	<b>1.7</b>	<b>1.4</b>	<b>2.0</b>	<b>2.3</b>	<b>2.1</b>	<b>1.4</b>	<b>1.6</b>	<b>1.9</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b For reporting economies only.

Sources: ADB staff estimates using International Financial Statistics Online (IMF 2012), World Development Indicators Online (World Bank 2012), and country sources.

## External Trade

Table 4.8 **Merchandise Exports**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	235	166	137	68	100	144	305	384	416	454	545	403	388	376
Armenia	...	271	300	342	505	686	723	974	985	1152	1057	710	1041	1330
Azerbaijan	...	637	1745	2314	2168	2590	3615	7649	13015	21269	30586	21097	26476	34495
Georgia	...	...	323	318	346	461	647	866	936	1232	1495	1134	1677	2189
Kazakhstan	...	5250	8812	8639	9670	12927	20096	27849	38250	47755	71184	43196	59830	88118
Kyrgyz Republic	...	409	505	476	486	582	721	674	891	1321	1856	1673	1812	2246
Pakistan	4960	7972	8335	8765	9464	11346	12583	14453	16468	17107	17642	17202	19261	24917
Tajikistan	...	779	784	652	737	797	915	909	1399	1468	1409	1010	1195	1257
Turkmenistan	151	2084	2508	2623	2862	3465	3854	4944	7156	9114	11786	14500	...	...
Uzbekistan	...	3720	3265	3170	2988	3725	4853	5409	6390	8992	11493	11771	13023	15027
<b>East Asia</b>														
China, People's Rep. of	62091	148780	249203	266100	325600	438228	593326	761953	968969	1220460	1430690	1201610	1577800	1898600
Hong Kong, China	82143	173753	201855	189901	200094	223769	259260	289325	316823	344490	362683	318520	390134	428732
Korea, Rep. of	65016	125058	172268	150439	162471	193817	253845	284419	325465	371489	422007	363534	466384	555214
Mongolia	661	473	536	521	524	616	869	1064	1542	1948	2535	1885	2909	4818
Taipei, China	67044	111405	151458	125866	135079	150301	182432	198168	223763	246259	254024	202956	273543	306797
<b>South Asia</b>														
Bangladesh	1415	3260	4780	5809	5344	6464	7420	8259	10264	12211	14111	15526	16131	22083
Bhutan	68	103	103	106	113	133	183	258	414	613	556	509	556	646
India	18601	32798	45297	44296	52486	62977	82826	103496	126201	158619	193254	174677	249892	221622
Maldives	53	85	109	108	134	152	181	162	224	228	331	169	198	346
Nepal	176	340	701	743	603	656	732	823	828	894	850	873	831	869
Sri Lanka	1913	3807	5456	4815	4702	5133	5771	6351	6896	7645	8109	7081	8618	10560
<b>Southeast Asia</b>														
Brunei Darussalam <sup>a</sup>	2237	2392	3903	3640	3702	4421	5057	6249	7608	7668	10544	7172	9340	12428
Cambodia	86	854	1397	1571	1770	2087	2589	2908	3692	3248	3493	2996	3884	5276
Indonesia	25675	45418	62124	56321	57159	61058	71585	85660	100799	114101	137020	116510	157779	203497
Lao PDR	79	308	330	320	301	336	363	553	882	923	1092	1053	1746	1853
Malaysia	29446	73865	98229	87969	94061	104706	126646	141586	160625	175793	198751	156760	198318	226961
Myanmar	472	899	1982	2563	3036	2324	2906	3584	5191	6349	6873	7481	8804	9144
Philippines	8186	17447	38078	32150	35208	36231	39681	41255	47410	50466	49078	38436	51498	48042
Singapore <sup>b</sup>	52527	118186	137953	121685	125043	159902	198562	229832	271604	299003	336968	268900	351182	409246
Thailand	23053	56444	69152	64924	68062	80165	96307	110360	130336	153604	175647	151509	194924	226178
Viet Nam	2404	5449	14483	15029	16706	20149	26485	32447	39826	48561	62685	57096	72237	96906
<b>The Pacific</b>														
Cook Islands	5	5	9	7	5	8	7	5	4	5	4	3	5	3
Fiji	608	623	543	536	518	670	696	705	694	751	923	629	842	479
Kiribati	3	7	4	3	3	3	2	4	3	10	7	6	4	9
Marshall Islands	3	23	25	23	26	29	30	34	28	28	32	...	...	...
Micronesia, Fed. States of	4	39	17	18	14	18	14	13	9	...	...	...	...	...
Nauru	60	28	28	13	9	28	14	4	4	18	121	25	55	69
Palau	...	14	12	17	20	8	6	14	14	11	13	8	7	7
Papua New Guinea	1175	2672	2089	1802	1640	2195	2612	3271	4198	4741	5798	4385	5738	6782
Samoa	9	9	14	15	14	15	12	12	10	14	11	11	12	13
Solomon Islands	70	168	65	47	50	67	86	105	121	165	211	165	227	413
Timor-Leste	...	...	...	4	77	143	106	43	61	8	13	9	16	13
Tonga	12	15	9	7	14	16	16	14	9	8	9	8	8	8
Tuvalu	0	0	0	0	0	0	0	0	0	...	...	...	...	...
Vanuatu	19	28	26	20	20	30	50	46	49	50	56	57	48	66
<b>Developed Member Economies</b>														
Australia	39726	53127	63980	63375	64903	70014	86614	106211	123311	140901	186500	153297	212027	270061
Japan	286321	441538	479323	403025	415582	470516	565378	595697	647006	712769	783851	578931	767825	821312
New Zealand	9402	13641	13292	13734	14353	16490	20357	21698	22459	26867	30153	24793	31376	37684
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	448420	943651	1285047	1201116	1320231	1589158	2003928	2370844	2832862	3332576	3817010	3206082	4159034	4855206
<b>REGIONAL MEMBERS<sup>c</sup></b>	786106	1454349	1845545	1684890	1818770	2150600	2681334	3100699	3633246	4220780	4828057	3970274	5179603	5996691

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b Prior to 2003, data exclude Indonesia.

c For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2012).

## External Trade

Table 4.9 **Growth Rates of Merchandise Exports<sup>a</sup>**  
(%)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	34.3	58.2	-17.4	-50.5	47.1	44.0	111.8	25.9	8.3	9.1	20.0	-26.1	-3.7	-3.1
Armenia	...	...	29.7	13.7	47.8	35.7	5.4	34.7	1.2	17.0	-8.3	-32.8	46.6	27.7
Azerbaijan	...	-2.4	87.7	32.6	-6.3	19.5	39.6	111.6	70.1	63.4	43.8	-31.0	25.5	30.3
Georgia	...	...	35.5	-1.6	8.9	33.4	40.2	33.8	8.2	31.6	21.4	-24.2	48.0	30.5
Kazakhstan	...	48.2	50.1	-2.0	11.9	33.7	55.5	38.6	37.3	24.8	49.1	-39.3	38.5	47.3
Kyrgyz Republic	...	20.2	11.2	-5.6	2.0	19.8	24.0	-6.5	32.2	48.3	40.5	-9.8	8.3	23.9
Pakistan	11.9	18.1	4.8	5.2	8.0	19.9	10.9	14.9	13.9	3.9	3.1	-2.5	12.0	29.4
Tajikistan	...	39.3	13.9	-16.9	13.1	8.2	14.8	-0.7	54.0	4.9	-4.0	-28.3	18.3	5.2
Turkmenistan	...	-4.2	115.5	4.6	9.1	21.1	11.2	28.3	44.7	27.4	29.3	23.0	...	...
Uzbekistan	...	38.3	0.9	-2.9	-5.7	24.6	30.3	11.5	18.1	40.7	27.8	2.4	10.6	15.4
<b>East Asia</b>														
China, People's Rep. of	18.2	23.0	27.8	6.8	22.4	34.6	35.4	28.4	27.2	26.0	17.2	-16.0	31.3	20.3
Hong Kong, China	12.3	14.8	16.1	-5.9	5.4	11.8	15.9	11.6	9.5	8.7	5.3	-12.2	22.5	9.9
Korea, Rep. of	4.2	30.3	19.9	-12.7	8.0	19.3	31.0	12.0	14.4	14.1	13.6	-13.9	28.3	19.0
Mongolia	-8.4	32.9	18.0	-2.7	0.5	17.5	41.1	22.4	44.9	26.3	30.1	-25.6	54.3	65.6
Taipei, China	1.3	20.0	22.6	-16.9	7.3	11.3	21.4	8.6	12.9	10.1	3.2	-20.1	34.8	12.2
<b>South Asia</b>														
Bangladesh	11.0	33.8	12.5	21.5	-8.0	21.0	14.8	11.3	24.3	19.0	15.6	10.0	3.9	36.9
Bhutan	-2.4	55.6	-11.3	3.1	6.5	17.9	37.4	41.5	60.5	47.9	-9.3	-8.3	9.1	16.3
India	9.1	24.5	22.2	-2.2	18.5	20.0	31.5	25.0	21.9	25.7	21.8	-9.6	43.1	-11.3
Maldives	19.2	12.7	18.8	-0.4	23.3	13.8	19.0	-10.5	38.6	1.5	45.7	-49.0	16.9	75.4
Nepal	13.8	-13.0	34.0	6.0	-18.8	8.8	11.6	12.4	0.6	8.0	-5.0	2.8	-4.8	4.5
Sri Lanka	24.2	18.6	18.5	-11.7	-2.3	9.2	12.4	10.1	8.6	10.9	6.1	-12.7	21.7	22.5
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	16.2	10.9	53.0	-6.7	1.7	19.4	14.4	23.6	21.7	0.8	37.5	-32.0	30.2	33.1
Cambodia	8.3	74.3	23.6	12.5	12.6	17.9	24.1	12.3	27.0	-12.0	7.6	-14.2	29.7	35.8
Indonesia	15.9	13.4	27.7	-9.3	1.5	6.8	17.2	19.7	17.7	13.2	20.1	-15.0	35.4	29.0
Lao PDR	24.8	2.4	9.6	-3.3	-5.9	11.6	8.3	52.2	59.5	4.6	18.3	-3.6	65.8	6.1
Malaysia	17.6	25.9	16.1	-10.4	6.9	11.3	21.0	11.8	13.4	9.4	13.1	-21.1	26.5	14.4
Myanmar	10.1	-1.1	37.9	29.3	18.4	-23.5	25.1	23.3	44.9	22.3	8.3	8.8	17.7	3.9
Philippines	4.7	29.4	8.7	-15.6	9.5	2.9	9.5	4.0	14.9	6.4	-2.8	-21.7	34.0	-6.7
Singapore <sup>c</sup>	17.6	22.5	20.3	-11.8	2.8	27.9	24.2	15.7	18.2	10.1	12.7	-20.2	30.6	16.5
Thailand	14.8	27.0	18.0	-6.1	4.8	17.8	20.1	14.6	18.1	17.9	14.4	-13.7	28.7	16.0
Viet Nam	23.5	34.4	25.5	3.8	11.2	20.6	31.4	22.5	22.7	21.9	29.1	-8.9	26.5	34.2
<b>The Pacific</b>														
Cook Islands	74.7	10.5	154.4	-25.2	-25.5	67.6	-15.7	-26.9	-32.7	47.5	-20.1	-33.7	87.9	-39.5
Fiji	-99.9	9.4	-12.1	-1.1	-3.5	29.3	3.9	1.4	-1.6	8.2	22.9	-31.8	33.9	-43.1
Kiribati	-43.5	43.0	-59.1	-6.6	2.7	-15.6	-14.8	74.5	-41.5	301.5	-27.2	-14.9	-38.0	120.7
Marshall Islands	23.5	5.4	48.7	-8.0	11.2	14.8	0.9	14.0	-16.6	0.8	14.7	5.6	...	...
Micronesia, Fed. States of	62.5	-50.0	688.9	9.6	-21.5	26.1	-23.1	-7.3	-31.3	81.5	...	...	...	...
Nauru	-24.9	-15.1	-22.2	-53.6	-30.8	211.5	-48.4	-73.8	15.0	316.3	569.6	-79.5	119.8	26.2
Palau	...	10.2	57.7	44.0	22.8	-58.7	-30.1	138.0	1.4	-20.4	12.4	-34.6	-13.3	-5.6
Papua New Guinea	-16.3	0.8	7.3	-13.8	-9.0	33.9	19.0	25.2	28.3	12.9	22.3	-24.4	30.8	18.2
Samoa	-31.0	149.5	-24.9	10.8	-9.3	8.6	-20.0	0.7	-13.8	33.7	-18.8	2.2	8.2	4.2
Solomon Islands	-5.8	18.4	-48.1	-27.6	6.4	33.2	28.5	22.3	14.9	36.5	28.0	-21.7	37.4	82.3
Timor-Leste	...	...	...	...	1850.9	85.2	-26.0	-58.9	39.7	-87.3	67.5	-34.1	92.9	-19.5
Tonga	23.7	6.0	-27.1	-24.4	101.6	16.6	-3.5	-10.7	-33.7	-12.1	10.5	-15.3	6.7	-2.3
Tuvalu	-43.7	-51.9	-91.5	68.5	813.1	-36.3	40.0	-54.0	59.4	2.6	...	...	...	...
Vanuatu	-15.3	13.2	2.8	-25.1	1.7	50.5	63.6	-6.5	4.8	2.1	13.6	0.7	-14.8	35.3
<b>Developed Member Economies</b>														
Australia	6.6	12.2	14.1	-0.9	2.4	7.9	23.7	22.6	16.1	14.3	32.4	-17.8	38.3	27.4
Japan	4.4	11.4	14.8	-15.9	3.1	13.2	20.2	5.4	8.6	10.2	10.0	-26.1	32.6	7.0
New Zealand	6.1	12.1	6.5	3.3	4.5	14.9	23.5	6.6	3.5	19.6	12.2	-17.8	26.6	20.1
<b>DEVELOPING MEMBER ECONOMIES<sup>d</sup></b>														
	11.0	22.0	20.9	-6.5	9.9	20.4	26.1	18.3	19.5	17.6	14.5	-16.0	29.7	16.7
<b>REGIONAL MEMBERS<sup>d</sup></b>														
	8.3	18.1	19.0	-8.7	7.9	18.2	24.7	15.6	17.2	16.2	14.4	-17.8	30.5	15.8

... = Data not available at cutoff date.

a Rates are based on US dollar values of exports.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Prior to 2003, data exclude Indonesia.

d For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2012).





## External Trade

**Table 4.12 Trade in Goods<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	59.6	45.5	44.4	43.1	42.1	33.5	33.1	29.7	34.5	...
Armenia	...	73.4	62.0	57.6	62.8	70.0	58.0	56.6	49.8	48.0	47.0	46.6	51.7	54.1
Azerbaijan	...	54.0	55.3	65.6	61.5	71.7	82.2	90.6	87.1	82.6	78.1	62.3	62.8	70.4
Georgia	...	...	33.8	33.3	33.6	40.2	48.6	52.3	59.5	63.3	60.9	52.3	59.6	64.4
Kazakhstan	...	54.4	75.7	68.1	66.0	69.2	76.2	79.1	76.4	76.8	81.7	62.1	54.9	...
Kyrgyz Republic	...	62.4	77.3	61.8	66.8	67.6	75.4	75.7	99.6	108.1	115.3	100.5	105.3	110.0
Pakistan	30.0	30.7	25.7	27.8	27.0	28.1	28.9	32.1	35.5	33.3	36.7	32.5	30.7	31.1
Tajikistan	...	284.6	169.6	123.9	119.4	107.9	101.4	96.8	110.4	108.0	90.7	71.9	68.3	68.1
Turkmenistan	21.4	63.4	86.2	70.1	54.0	52.9	49.3	45.9	45.4	49.7	89.8	105.8	...	...
Uzbekistan	...	65.0	45.1	88.5	57.7	65.9	72.1	69.1	64.3	70.3	71.5	62.7	56.1	56.4
<b>East Asia</b>														
China, People's Rep. of	29.6	38.6	39.6	38.5	42.7	51.9	59.8	63.0	64.9	62.3	56.7	44.2	50.1	49.9
Hong Kong, China	214.1	254.1	245.2	234.7	249.0	287.4	319.7	331.2	343.0	343.9	348.8	318.1	367.2	375.0
Korea, Rep. of	49.9	49.0	62.4	57.8	54.6	57.9	66.2	64.6	66.7	69.4	92.0	82.3	87.9	96.7
Mongolia	...	72.4	121.6	114.1	109.1	97.8	104.0	97.2	87.2	94.7	102.8	87.8	98.5	133.4
Taipei, China	73.9	78.2	89.5	79.5	82.5	89.6	103.4	104.4	113.4	118.5	123.3	99.9	121.9	125.9
<b>South Asia</b>														
Bangladesh	17.2	24.0	28.3	32.7	29.3	31.1	32.6	36.2	40.9	42.9	44.9	42.8	39.8	50.7
Bhutan	48.8	71.1	67.3	61.1	58.8	60.5	86.0	80.0	92.9	98.3	93.7	87.6	89.3	...
India	13.3	19.2	20.7	19.9	22.5	23.7	27.0	30.2	32.9	33.4	39.3	34.2	36.8	30.6
Maldives	...	88.4	79.7	55.7	57.6	59.4	69.1	85.1	82.4	79.5	84.8	53.9	57.7	82.9
Nepal	21.2	34.6	38.8	38.8	33.6	35.4	35.4	35.3	35.8	34.9	34.5	35.6	36.5	33.6
Sri Lanka	57.3	70.5	75.7	67.2	63.2	62.5	66.7	62.4	60.7	58.6	54.5	41.1	44.5	52.1
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	92.3	94.6	83.5	85.7	90.0	87.7	82.3	81.2	80.9	79.8	91.1	89.2	95.4	93.9
Cambodia <sup>c</sup>	17.8	59.3	90.9	92.1	96.3	101.9	109.8	108.5	116.3	89.9	82.8	71.9	83.2	94.7
Indonesia	41.5	42.6	58.0	54.4	45.2	39.9	46.0	50.1	44.4	43.6	52.2	39.5	41.4	45.0
Lao PDR	30.5	50.4	52.9	50.0	42.5	39.6	45.3	52.8	54.8	47.2	47.2	45.0	55.6	...
Malaysia	133.3	170.5	192.1	174.3	172.4	170.6	185.8	178.3	178.8	166.3	153.6	138.5	146.9	144.0
Myanmar	5.6	2.5	1.1	1.0	0.6	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	...
Philippines	47.9	62.0	88.7	88.0	93.8	93.9	93.9	88.0	83.0	72.6	62.9	48.4	53.3	48.1
Singapore <sup>d</sup>	291.3	278.6	289.1	270.9	266.3	308.6	330.2	342.8	350.0	316.3	345.1	276.8	291.0	298.1
Thailand	63.5	75.3	104.1	105.7	98.9	102.5	110.5	121.2	118.1	112.6	122.3	102.4	111.3	123.0
Viet Nam	79.7	65.6	96.6	95.6	104.0	114.8	128.7	130.8	139.1	156.8	157.4	130.7	147.6	164.6
<b>The Pacific</b>														
Cook Islands	88.2	56.8	65.3	55.8	46.8	51.5	46.5	47.3	54.9	48.7	48.1	35.4	35.5	...
Fiji	101.7	76.9	83.0	85.7	77.0	80.9	78.4	77.0	80.5	74.8	88.6	71.6	83.8	38.6
Kiribati	123.5	74.1	63.0	66.0	71.7	58.2	60.4	76.6	61.9	64.6	61.7	62.9	54.4	...
Marshall Islands	75.8	82.9	127.1	122.4	102.1	114.5	109.9	120.5	107.9	108.6	111.5	127.1	...	...
Micronesia, Fed. States of <sup>e</sup>	56.9	62.3	52.9	55.0	49.1	55.5	61.2	57.3	57.7	61.7	...	...	...	...
Nauru	...	160.7	261.0	179.4	191.8	228.3	117.0	112.3	150.8	326.5	509.3	234.8	120.8	141.0
Palau	...	78.0	93.1	75.0	72.7	58.9	61.5	61.0	62.0	56.2	66.9	49.6	51.8	59.4
Papua New Guinea	70.8	81.4	88.3	89.2	89.2	90.9	97.3	98.4	111.8	116.1	111.6	89.4	95.4	86.2
Samoa <sup>f</sup>	79.8	50.4	45.1	56.3	54.1	44.6	43.4	45.8	50.7	43.9	48.1	41.4	49.0	49.7
Solomon Islands	86.3	98.6	55.1	47.4	52.7	67.3	75.0	93.7	94.2	107.0	101.4	75.9	94.2	104.9
Timor-Leste	...	...	...	69.9	138.4	122.5	23.7	8.4	5.9	7.2	6.1	8.9	6.4	...
Tonga	62.8	44.4	41.8	47.9	56.6	52.5	50.0	51.0	42.3	49.3	51.9	46.3	44.6	30.8
Tuvalu	...	45.4	37.4	26.4	72.2	85.6	53.3	59.2	59.0	57.4	...	...	...	...
Vanuatu	76.1	54.1	39.5	41.0	42.0	43.0	49.0	52.0	58.9	51.1	59.6	59.0	48.7	46.2
<b>Developed Member Economies</b>														
Australia	24.9	30.0	34.3	34.0	32.7	29.7	30.1	32.0	34.2	32.9	38.1	31.7	34.1	34.9
Japan	17.0	14.6	18.2	18.1	18.9	19.8	21.9	24.3	28.1	30.6	31.9	22.4	26.6	28.5
New Zealand	42.5	44.5	51.0	50.9	47.7	42.4	43.2	42.4	44.6	42.9	49.6	42.8	44.2	...
<b>DEVELOPING MEMBER ECONOMIES<sup>g</sup></b>	<b>54.9</b>	<b>67.1</b>	<b>71.3</b>	<b>65.8</b>	<b>66.2</b>	<b>71.3</b>	<b>78.9</b>	<b>80.6</b>	<b>81.9</b>	<b>78.8</b>	<b>79.3</b>	<b>63.7</b>	<b>69.5</b>	<b>69.6</b>
<b>REGIONAL MEMBERS<sup>g</sup></b>	<b>30.1</b>	<b>33.0</b>	<b>40.5</b>	<b>39.9</b>	<b>41.8</b>	<b>44.7</b>	<b>50.0</b>	<b>53.9</b>	<b>58.8</b>	<b>59.8</b>	<b>61.4</b>	<b>48.5</b>	<b>54.4</b>	<b>56.2</b>

... = Data not available at cutoff date.

a Sum of merchandise exports and imports.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Starting 2005, compilation methodology for imports shifted from cif to fob.

d Prior to 2003, data exclude Indonesia.

e Starting 2000, compilation methodology for imports shifted from fob to cif.

f Starting 2000, compilation methodology for imports shifted from cif to fob.

g For reporting economies only.

Sources: Country sources, International Financial Statistics Online (IMF 2012).







## International Reserves

Table 4.15 **International Reserves<sup>a</sup>**  
(end of year; \$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	7	6	6	7	1	0	0	0	0	0	201	198	197
Armenia	...	110	314	330	431	502	548	669	1072	1659	1407	2004	1866	1932
Azerbaijan	-	121	680	725	720	803	1075	1178	2500	4273	6467	5364	6409	10274
Georgia	-	199	116	162	202	196	387	479	931	1361	1480	2110	2264	2818
Kazakhstan	-	1660	2096	2508	3141	4962	9277	7070	19127	17629	19872	23220	28275	29325
Kyrgyz Republic	-	124	262	287	317	399	565	612	817	1177	1225	1585	1720	1835
Pakistan	985	2453	2056	4235	8762	11674	10616	10948	12816	15689	8903	13771	17210	18094
Tajikistan	-	0	94	94	90	118	172	189	204	85	163	256	403	532
Turkmenistan	...	1170	1808	2055	2346	2673	2714	4457	8059	13222	...	...	...	...
Uzbekistan	...	...	1273	1212	1215	1659	2147	0	0	0	1	413	405	...
<b>East Asia</b>														
China, People's Rep. of	30209	76036	168856	218698	295202	412225	618574	825588	1072564	1534354	1953334	2425855	2875895	3212605
Hong Kong, China	24657	55424	107560	111174	111919	118388	123569	124278	133210	152693	182527	255842	268743	285401
Korea, Rep. of	14825	32712	96198	102821	121414	155355	199069	210391	238956	262224	201220	270012	291571	306422
Mongolia	23	152	202	207	268	204	208	333	718	1001	657	1327	2288	2848
Taipei, China	78064	95911	111370	126572	166046	211140	246560	257952	270840	275027	296389	352967	387206	390590
<b>South Asia</b>														
Bangladesh	649	2367	1516	1305	1722	2624	3222	2825	3877	5278	5789	10343	11178	9192
Bhutan	89	130	318	323	355	367	399	467	545	699	765	891	1002	790
India	5188	21591	40155	48200	70377	102261	130401	136026	176105	273859	254024	274668	297747	297905
Maldives	24	48	123	95	136	162	207	189	234	311	244	276	364	349
Nepal	302	593	952	1044	1024	1229	1469	1504	1935	2014	2458	2761	2925	3567
Sri Lanka	433	2094	1147	1357	1705	2334	2205	2735	2837	3508	2561	5358	7196	...
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	-	-	408	382	449	475	489	492	514	667	751	1357	1563	...
Cambodia	0	192	611	698	914	982	1118	1159	1411	2143	2641	3288	3802	4069
Indonesia	8520	14787	29268	28018	32047	36253	36303	34731	42588	56925	51641	66119	96211	110137
Lao PDR	2	93	140	133	194	213	227	239	336	540	639	619	713	...
Malaysia	9871	23899	28624	29817	33656	44116	66176	70153	82426	101313	91528	96713	106525	133642
Myanmar	325	573	234	411	481	562	685	782	1248	...	3730	5265	5729	...
Philippines	2048	7799	15063	15692	16365	17063	16228	18494	22967	33751	37551	44243	62373	75302
Singapore	27790	68816	80170	75677	82221	96246	112579	116172	136261	162958	174193	187804	225715	237874
Thailand	14273	36945	32661	33041	38915	42148	49831	52065	66985	87455	111008	138418	172129	175124
Viet Nam	0	1379	3510	3765	4232	6359	7186	9216	13591	23748	24176	16803	12926	...
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	261	349	412	366	359	424	483	321	313	528	322	570	721	834
Kiribati	0	0	0	0	0	0	0	0	0	0	0	8	8	8
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	-	69	113	98	117	90	55	50	47	48	40	56	56	75
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	-	-	0	0	0	0	0	0	0	0	0	5	5	...
Papua New Guinea	415	263	296	430	343	520	660	749	1427	2087	1987	2607	3092	4323
Samoa	69	55	64	57	62	84	86	82	81	95	87	166	209	167
Solomon Islands	18	16	32	19	18	37	81	95	104	119	90	146	266	412
Timor-Leste	...	...	...	...	43	61	182	153	84	230	210	250	406	462
Tonga	31	29	25	24	25	40	55	47	48	65	70	96	105	143
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	38	48	39	38	37	44	62	67	105	120	115	149	161	174
<b>Developed Member Economies</b>														
Australia	19328	14951	18817	18664	21567	33258	36926	43257	55079	26908	32924	41742	42268	46826
Japan	79707	184510	361639	401958	469728	673530	844667	846896	895321	973364	1030641	1049401	1096185	1295836
New Zealand	4129	4410	3952	3565	4963	6085	6947	8893	14069	17247	11052	15594	16723	17012
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>219110</b>	<b>448215</b>	<b>728361</b>	<b>811695</b>	<b>997432</b>	<b>1274515</b>	<b>1645380</b>	<b>1892467</b>	<b>2317370</b>	<b>3038189</b>	<b>3439512</b>	<b>4212546</b>	<b>4896019</b>	<b>5317421</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>322274</b>	<b>652086</b>	<b>1113177</b>	<b>1236263</b>	<b>1494138</b>	<b>1987864</b>	<b>2534409</b>	<b>2792004</b>	<b>3282352</b>	<b>4056376</b>	<b>4514880</b>	<b>5320640</b>	<b>6052757</b>	<b>6677095</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed, - = Magnitude equals zero.

a Data refer to international reserves with gold at national valuation unless otherwise specified. For Afghanistan, Bhutan, Kiribati, Palau, Samoa, Solomon Islands, Singapore, Timor-Leste, Tonga, Turkmenistan, and Vanuatu, data refer to international reserves without gold.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c For reporting economies only.

Sources: International Financial Statistics Online (IMF 2012); for Taipei,China: economy sources.

Table 4.16 **Ratio of International Reserves to Imports<sup>a</sup>**  
(months)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3
Armenia	...	2.0	4.9	5.1	5.9	5.3	5.5	5.0	6.7	7.1	4.5	8.5	7.0	6.3
Azerbaijan	...	1.5	5.3	5.9	4.7	3.5	3.6	3.2	5.7	8.5	10.2	9.9	11.4	12.1
Georgia	...	3.3	1.4	1.9	2.2	1.6	2.3	2.1	3.0	3.3	2.8	5.9	5.4	5.1
Kazakhstan	...	3.7	3.5	3.8	4.7	6.2	8.1	4.7	9.5	6.4	6.2	9.6	10.3	8.5
Kyrgyz Republic	...	2.8	6.2	7.7	6.7	6.6	7.5	6.6	5.5	5.4	3.9	6.8	6.9	5.6
Pakistan	1.6	2.9	2.6	5.0	11.1	12.4	9.3	6.9	6.2	7.0	3.0	5.2	6.6	6.1
Tajikistan	...	...	1.2	1.5	1.3	1.4	1.7	1.6	1.1	0.3	0.5	1.1	1.5	1.5
Turkmenistan	...	8.5	12.5	11.7	15.4	12.4	10.3	18.1	26.9	32.4	...	...	...	...
Uzbekistan	...	...	6.3	5.7	6.7	8.3	8.4	0.0	0.0	0.0	0.0	0.5	0.6	...
<b>East Asia</b>														
China, People's Rep. of	8.6	8.3	9.4	11.3	12.6	12.6	13.9	15.8	17.1	20.4	21.8	30.5	26.0	23.2
Hong Kong, China	...	...	6.1	6.7	6.5	6.2	5.5	5.0	4.8	5.0	5.6	8.8	7.4	6.9
Korea, Rep. of	2.7	3.0	7.2	8.9	9.8	10.6	10.8	9.8	9.4	8.9	5.6	10.1	8.3	7.0
Mongolia	0.3	4.3	4.0	4.0	4.7	2.9	2.6	3.4	6.1	6.0	2.5	7.7	8.9	5.9
Taipei, China	17.8	11.5	9.7	14.4	18.1	20.4	17.9	17.3	16.3	15.3	15.0	24.5	18.8	16.8
<b>South Asia</b>														
Bangladesh	2.3	4.9	2.4	1.9	2.7	3.6	3.9	2.9	3.5	4.1	3.6	6.1	6.3	3.6
Bhutan	11.2	16.1	20.6	20.7	21.0	21.3	18.2	12.2	15.0	15.9	13.7	17.6	14.3	8.0
India	2.2	5.9	8.3	10.3	13.1	15.3	13.2	10.4	11.1	12.8	9.9	11.0	9.4	10.1
Maldives	2.4	2.4	4.3	3.3	4.7	4.7	4.4	3.5	3.4	3.9	2.4	3.9	4.5	...
Nepal	5.4	5.6	7.3	8.0	8.5	9.5	9.8	8.9	9.8	8.9	8.8	9.1	7.1	8.0
Sri Lanka	1.9	4.7	1.9	2.7	3.4	4.2	3.3	3.7	3.3	3.7	2.2	6.3	6.4	...
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	...	-	...	4.2	3.7	4.5	4.4	4.2	3.9	4.0	3.2	7.1	8.1	...
Cambodia	0.0	1.9	3.8	4.0	4.6	4.4	4.1	3.5	3.5	5.7	6.2	8.8	8.3	7.1
Indonesia	4.8	4.3	8.7	9.7	10.8	11.0	8.6	6.0	6.9	8.0	5.3	8.9	9.1	8.0
Lao PDR	0.2	1.9	3.1	3.1	5.2	5.5	3.8	3.3	3.8	6.1	5.5	5.1	4.2	...
Malaysia	4.6	4.0	4.4	5.1	5.4	6.7	8.0	7.8	8.0	8.8	7.4	9.9	8.2	9.0
Myanmar	7.4	3.9	1.3	2.1	2.7	3.6	4.1	5.3	6.4	...	13.7	17.5	16.0	...
Philippines	2.0	3.5	4.2	5.0	4.9	5.0	4.4	4.6	5.2	7.0	7.4	11.4	12.1	14.4
Singapore	5.9	6.7	6.9	7.6	8.1	8.8	8.1	7.1	7.1	7.6	6.7	9.3	8.8	7.9
Thailand	5.2	7.0	7.0	7.3	8.2	7.6	7.1	5.9	7.0	8.4	8.4	14.1	12.8	10.4
Viet Nam	0.0	2.2	3.0	3.1	2.9	3.4	3.0	3.2	3.8	4.8	3.8	3.1	2.0	...
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	4.9	5.5	6.4	5.7	5.4	4.8	4.5	2.6	2.3	3.9	1.9	5.3	5.6	5.6
Kiribati	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	-	7.5	12.4	9.7	12.6	8.9	5.3	4.8	4.3	4.5	3.3	4.4	4.2	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	...
Papua New Guinea	4.5	2.5	3.5	5.5	3.8	5.2	5.4	5.9	8.6	9.5	7.6	10.9	10.8	12.7
Samoa	11.8	7.2	2.4	1.6	1.8	7.4	6.7	5.2	4.4	5.0	4.2	9.7	9.0	6.2
Solomon Islands	2.7	1.2	4.2	2.8	4.6	6.4	13.4	9.5	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	10.0	15.7	8.1	8.1	...	...
Tonga	7.6	4.7	4.7	4.6	4.9	6.4	8.0	5.4	4.8	7.1	6.2	8.6	11.5	13.7
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.7	7.3	6.1	5.8	4.9	5.8	6.6	6.2	8.1	7.5	5.5	7.1	8.1	9.0
<b>Developed Member Economies</b>														
Australia	5.9	3.1	3.3	3.6	3.7	4.7	4.2	4.3	4.9	2.0	2.1	3.2	2.6	2.3
Japan	4.5	7.5	12.6	15.4	18.6	23.5	24.7	21.4	20.1	20.4	17.4	25.2	20.6	19.3
New Zealand	6.0	4.2	3.6	3.3	4.3	4.2	3.8	4.2	6.8	6.9	4.1	8.0	6.6	5.7
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>6.2</b>	<b>6.1</b>	<b>6.5</b>	<b>7.7</b>	<b>8.8</b>	<b>9.5</b>	<b>9.8</b>	<b>9.6</b>	<b>10.3</b>	<b>11.6</b>	<b>11.3</b>	<b>16.2</b>	<b>14.4</b>	<b>13.6</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>5.7</b>	<b>6.3</b>	<b>7.7</b>	<b>9.1</b>	<b>10.4</b>	<b>11.8</b>	<b>12.1</b>	<b>11.4</b>	<b>11.8</b>	<b>12.7</b>	<b>11.9</b>	<b>17.0</b>	<b>14.8</b>	<b>14.0</b>

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, - = Magnitude equals zero.

a Merchandise imports from the balance of payments were used in the computation.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c For reporting economies only.

Sources: ADB staff estimates using International Financial Statistics Online (IMF 2012) and country sources.

## Capital Flows

Table 4.17 Official Flows<sup>a</sup> from All Sources to Developing Member Economies (\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan <sup>b</sup>	122	213	136	410	1310	1594	2311	2838	2962	4965	4875	6235	6371
Armenia	...	229	205	190	263	198	203	182	228	359	318	1098	366
Azerbaijan	...	191	281	190	315	259	171	192	387	354	388	453	595
Georgia	...	219	136	247	282	209	207	234	224	314	899	988	829
Kazakhstan	...	459	152	151	136	284	222	-656	133	68	332	856	1477
Kyrgyz Republic	...	201	217	168	184	178	247	272	272	283	326	640	462
Pakistan	1545	1298	616	1710	1285	1406	-170	1689	2557	2516	2497	4415	3407
Tajikistan	...	93	84	145	155	164	207	231	372	394	559	467	521
Turkmenistan	...	29	271	89	-33	4	-13	-54	-84	-47	-35	-54	-34
Uzbekistan	...	320	334	337	105	87	215	142	49	97	165	365	302
<b>East Asia</b>													
China, People's Rep. of	2364	8799	2346	3001	-303	-1995	1374	2002	2253	1970	2741	2142	2125
Hong Kong, China <sup>b</sup>	38	18	4	4	4	...	...	...	...	...	...	...	...
Korea, Rep. of <sup>b</sup>	52	57	-198	-111	-82	...	...	...	...	...	...	...	...
Mongolia	13	211	199	191	186	-7	265	224	211	244	254	395	317
Taipei, China <sup>b</sup>	36	0	10	10	7	...	...	...	...	...	...	...	...
<b>South Asia</b>													
Bangladesh	1816	1239	1132	1168	959	1208	1515	1184	1681	1536	3076	1917	1540
Bhutan	48	71	72	122	145	153	150	148	127	83	65	134	220
India	3151	-51	514	1224	-2791	-4215	782	2580	2386	3706	4356	4543	6691
Maldives	23	60	17	24	30	42	68	80	60	52	53	116	128
Nepal	397	433	344	353	332	430	409	548	497	570	789	868	794
Sri Lanka	632	610	317	384	431	743	580	1274	866	853	883	1171	1707
<b>Southeast Asia</b>													
Brunei Darussalam <sup>b,c</sup>	4	4	...	...	...	...	...	...	...	...	...	...	...
Cambodia	41	513	372	411	461	530	502	572	651	689	945	793	953
Indonesia	3096	1879	2240	1176	481	-17	-1874	543	-2	-1499	228	1466	2731
Lao PDR	222	278	263	237	261	283	246	326	330	442	463	465	417
Malaysia	538	513	697	2167	-103	9	748	-168	-353	-1424	-664	-921	-571
Myanmar	155	78	105	124	130	115	116	137	134	196	532	351	292
Philippines	1536	-136	335	96	332	533	-123	-246	383	471	-427	1221	168
Singapore <sup>b</sup>	-3	17	1	1	7	...	...	...	...	...	...	...	...
Thailand	521	858	724	32	-3959	-3881	-2406	-1622	-465	-716	-680	-170	-92
Viet Nam	99	632	1522	1505	1173	2030	2007	1779	1736	2444	2353	4092	3548
<b>The Pacific</b>													
Cook Islands <sup>b</sup>	12	13	4	5	4	6	9	8	32	9	6	7	13
Fiji	23	37	21	22	31	50	63	73	62	54	52	80	103
Kiribati <sup>b</sup>	20	15	18	12	21	19	17	28	27	27	27	27	23
Marshall Islands <sup>b</sup>	...	36	47	68	56	52	50	56	55	53	54	61	83
Micronesia, Fed. States of <sup>b</sup>	...	77	102	138	112	115	86	107	109	115	94	121	125
Nauru <sup>b</sup>	0	3	4	7	12	16	14	9	17	26	31	24	28
Palau <sup>b</sup>	...	142	39	34	32	26	20	24	37	22	43	35	26
Papua New Guinea	534	397	351	269	185	175	217	250	242	229	278	408	510
Samoa	46	41	25	37	38	31	30	43	47	46	59	83	172
Solomon Islands	41	50	70	78	39	81	121	200	204	245	219	204	327
Timor-Leste <sup>b</sup>	0	0	231	194	219	175	161	185	209	278	278	216	292
Tonga	30	38	21	23	23	30	19	31	21	30	31	53	109
Tuvalu <sup>b</sup>	5	8	4	8	12	6	8	8	14	11	16	17	13
Vanuatu	50	47	46	30	27	33	39	40	49	61	102	114	108
<b>DEVELOPING MEMBER ECONOMIES<sup>d</sup></b>	<b>17206</b>	<b>20241</b>	<b>14430</b>	<b>16683</b>	<b>2516</b>	<b>1157</b>	<b>8810</b>	<b>15491</b>	<b>18721</b>	<b>20127</b>	<b>26580</b>	<b>35500</b>	<b>37195</b>
<b>DEVELOPING ECONOMIES<sup>e</sup></b>	<b>66032</b>	<b>64790</b>	<b>47781</b>	<b>56660</b>	<b>46973</b>	<b>52783</b>	<b>66044</b>	<b>56874</b>	<b>94044</b>	<b>106207</b>	<b>129402</b>	<b>166690</b>	<b>179616</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

a Refers to net flows of long-term public and publicly guaranteed debt from official creditors and grants, including technical cooperation grants. However, data for 2010 only include net flows of long-term public and publicly guaranteed debt from official creditors for economies whose data were sourced from the Global Development Finance Database.

b Refers to net official development assistance only, i.e., concessional flows to developing economies and multilateral institutions provided by official agencies, including state and local governments, or by their executing agencies, administered with the objective of promoting the economic development and welfare of developing economies, and containing a grant element of at least 25%.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

d For reporting economies only.

e Includes data for all developing economies as reported in World Bank's Global Development Finance Online. For developing member economies not covered by the World Bank, data are from OECD's Geographical Distribution of Financial Flows to Aid Recipients.

Sources: Global Development Finance Online (World Bank 2012). For Afghanistan; Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Republic of Korea; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Singapore; Taipei, China; Timor-Leste; and Tuvalu: OECD.StatExtracts website (stats.oecd.org/Index.aspx).

Table 4.18 **Net Private Flows<sup>a</sup> from All Sources to Developing Member Economies**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan <sup>b</sup>	-2	0	21	-19	-0	15	34	-12	19	13	37	30	-22
Armenia	...	25	124	70	104	121	262	305	503	1201	1308	806	1273
Azerbaijan	...	330	214	197	1336	3264	3678	1926	-516	-4517	370	781	2585
Georgia	...	...	157	123	144	317	555	502	1349	1859	1967	988	1146
Kazakhstan	...	1204	2171	5019	4142	5675	12322	8728	34835	33220	24906	23112	16911
Kyrgyz Republic	...	96	-63	-73	-11	-3	122	42	316	319	985	285	516
Pakistan	182	1050	-18	-326	340	-82	1310	3394	6491	7877	5715	1795	1119
Tajikistan	...	10	12	26	17	-8	249	52	346	363	392	-50	65
Turkmenistan	...	253	-40	-167	-38	1	192	334	655	814	1241	3846	2044
Uzbekistan	...	177	-1	66	-7	110	9	-47	-73	727	974	2377	1356
<b>East Asia</b>													
China, People's Rep. of	8107	40862	43434	40474	47107	53038	73698	145090	174444	194609	197014	131859	229616
Hong Kong, China <sup>b</sup>	3482	3758	-1924	6632	-4025	...	...	...	...	...	...	...	...
Korea, Rep. of <sup>b</sup>	1572	7596	2133	5180	1829	...	...	...	...	...	...	...	...
Mongolia	...	-4	51	42	78	131	93	184	359	452	901	643	2211
Taipei, China <sup>b</sup>	428	428	132	4136	-4471	...	...	...	...	...	...	...	...
<b>South Asia</b>													
Bangladesh	59	-33	327	123	53	253	439	817	704	789	968	548	906
Bhutan	-3	-2	-0	0	0	3	3	9	6	74	3	7	19
India	1831	4974	10153	6989	7401	16274	18676	18619	48741	88462	40475	69303	87441
Maldives	7	9	22	21	44	4	48	126	200	322	181	72	110
Nepal	-6	-5	-8	21	-6	14	-1	2	-7	5	0	38	87
Sri Lanka	54	159	321	34	108	118	171	212	350	1140	428	660	501
<b>Southeast Asia</b>													
Brunei Darussalam <sup>b,c</sup>	...	...	...	61	230	124	113	175	88	258	222	326	496
Cambodia	...	164	149	149	145	84	131	381	483	867	815	539	783
Indonesia	2891	8147	-10640	-6741	-5254	-4625	1939	7265	10425	12971	16996	16650	21394
Lao PDR	6	95	34	24	137	22	174	309	453	1081	710	676	318
Malaysia	476	7850	4957	1505	5150	2107	9157	1862	10616	6624	-3696	490	13208
Myanmar	155	315	241	184	111	230	192	220	278	717	873	1090	364
Philippines	639	2372	3782	2224	1917	1569	2515	4403	4965	8642	-1922	3703	8695
Singapore <sup>b</sup>	3220	4290	8393	7548	9821	...	...	...	...	...	...	...	...
Thailand	4370	10146	-1137	-1472	779	5030	8983	14643	16374	14248	3493	5072	13563
Viet Nam	180	2136	591	704	738	1150	1610	2679	3627	12840	8916	7764	11493
<b>The Pacific</b>													
Cook Islands <sup>b</sup>	4	27	-31	0	-2	-23	-4	-29	3	1	-0	-1	-0
Fiji	79	69	1	41	32	41	250	157	559	342	311	55	196
Kiribati <sup>b</sup>	0	...	0	0	-0	...	0	1	-1	-8	...	2	-0
Marshall Islands <sup>b</sup>	1	-5	125	-1	-47	5	4	7	6	12	6	8	9
Micronesia, Fed. States of <sup>b</sup>	...	-0	...	-0	-0	...	...	0	1	16	49	9	3
Nauru <sup>b</sup>	1	1	-2	0	1	6	223	2	-0	-0	2	2	2
Palau <sup>b</sup>	1	-0	15	11	1	2	7	1	1	3	2	2	2
Papua New Guinea	204	111	45	2	-77	186	49	239	73	-103	119	448	2447
Samoa	7	3	-2	1	-0	1	2	-3	21	7	46	10	1
Solomon Islands	7	4	10	-13	-3	-4	-2	12	35	82	96	132	266
Timor-Leste <sup>b</sup>	-5	9	...	54	164	53	374	0	-64	0	3	2	-4
Tonga	0	1	4	1	-0	3	5	7	10	28	4	1	16
Tuvalu <sup>b</sup>	...	...	-1	1	25	0	0	-0	5	0	2	2	2
Vanuatu	13	31	20	18	14	18	20	13	43	34	44	32	39
<b>DEVELOPING MEMBER ECONOMIES<sup>d</sup></b>	<b>27962</b>	<b>96654</b>	<b>63772</b>	<b>72810</b>	<b>67797</b>	<b>85101</b>	<b>137492</b>	<b>212450</b>	<b>316633</b>	<b>386132</b>	<b>304735</b>	<b>273789</b>	<b>420682</b>
<b>DEVELOPING ECONOMIES<sup>e</sup></b>	<b>50470</b>	<b>172489</b>	<b>183401</b>	<b>185561</b>	<b>163246</b>	<b>218358</b>	<b>320459</b>	<b>504975</b>	<b>662708</b>	<b>971554</b>	<b>818365</b>	<b>584701</b>	<b>799909</b>

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

- a Refers to the sum of net foreign direct investment, portfolio equity flows, net flows of long-term public and publicly guaranteed debt from private creditors, and net flows of total private nonguaranteed debt.  
b Refers to the sum of direct investment, portfolio investment, and private net exports credits of Development Assistance Committee economies only.  
c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.  
d For reporting economies only.  
e Includes data for all developing economies as reported in World Bank's Global Development Finance Online. For developing member economies not covered by the World Bank, data are from OECD's Geographical Distribution of Financial Flows to Aid Recipients.

Sources: Global Development Finance Online (World Bank 2012); for Afghanistan; Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Republic of Korea; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Singapore; Taipei,China; Timor-Leste; and Tuvalu: OECD.StatExtracts website (stats.oecd.org/Index.aspx).

## Capital Flows

Table 4.19 **Aggregate Net Resource Flows<sup>a</sup> from All Sources to Developing Member Economies**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	120	213	157	392	1310	1609	2346	2826	2980	4978	4912	6266	6349
Armenia	...	254	329	261	367	319	466	487	732	1561	1627	1904	1639
Azerbaijan	...	521	494	387	1650	3523	3849	2119	-129	-4163	758	1234	3180
Georgia	...	219	294	371	426	...	762	736	1573	2173	2866	1976	1975
Kazakhstan	...	1664	2323	5170	4279	1460	12544	8072	34967	33288	25238	23968	18388
Kyrgyz Republic	...	297	154	95	173	...	369	314	589	602	1311	925	979
Pakistan	1727	2348	598	1384	1626	155	1139	5083	9048	10393	8212	6210	4526
Tajikistan	...	103	96	172	172	...	456	283	718	757	951	417	586
Turkmenistan	...	282	231	-78	-72	124	178	279	571	768	1206	3792	2010
Uzbekistan	...	498	333	404	98	...	224	95	-24	824	1140	2742	1657
<b>East Asia</b>													
China, People's Rep. of	10471	49661	45781	43476	46805	51042	75072	147092	176697	196579	199755	134001	231741
Hong Kong, China	3520	3776	-1920	6635	-4021	...	...	...	...	...	...	...	...
Korea, Rep. of	1624	7653	1935	5069	1747	...	...	...	...	...	...	...	...
Mongolia	13	207	250	233	264	124	358	408	570	696	1155	1039	2528
Taipei, China	464	428	142	4145	-4464	...	...	...	...	...	...	...	...
<b>South Asia</b>													
Bangladesh	1874	1205	1458	1291	1012	1460	1954	2002	2385	2326	4044	2465	2446
Bhutan	45	69	72	122	146	155	153	157	134	157	68	141	239
India	4982	4923	10667	8212	4610	12058	19458	21199	51127	92167	44831	73847	94132
Maldives	29	68	39	45	75	46	116	205	259	374	234	188	237
Nepal	391	428	336	374	326	445	408	550	489	575	790	905	881
Sri Lanka	685	769	638	418	539	861	751	1486	1216	1993	1311	1831	2208
<b>Southeast Asia</b>													
Brunei Darussalam <sup>b</sup>	4	4	...	61	230	124	113	175	88	258	222	326	496
Cambodia	41	676	521	561	606	614	633	953	1134	1557	1760	1332	1736
Indonesia	5987	10026	-8401	-5565	-4772	-4642	65	7807	10423	11472	17224	18116	24125
Lao PDR	228	373	297	261	398	305	420	634	782	1523	1172	1142	735
Malaysia	1015	8362	5654	3672	5047	2116	9905	1694	10263	5201	-4360	-431	12637
Myanmar	309	394	346	308	240	344	308	357	412	912	1405	1441	655
Philippines	2175	2236	4117	2320	2249	2102	2393	4157	5348	9113	-2349	4924	8864
Singapore	3216	4307	8395	7549	9829	...	...	...	...	...	...	...	...
Thailand	4892	11004	-413	-1441	-3180	1149	6577	13021	15909	13531	2812	4903	13472
Viet Nam	279	2769	2113	2209	1911	3180	3617	4458	5363	15284	11269	11856	15041
<b>The Pacific</b>													
Cook Islands	17	40	-27	5	2	-17	5	-22	35	10	6	7	13
Fiji	102	105	22	63	63	90	313	230	622	396	363	135	299
Kiribati	20	15	18	13	21	19	17	29	26	19	27	29	23
Marshall Islands	1	31	173	67	9	57	54	63	61	65	60	69	92
Micronesia, Fed. States of	...	77	102	137	112	115	86	107	109	131	143	130	128
Nauru	1	3	2	7	13	22	237	12	17	26	33	26	30
Palau	1	142	54	45	33	27	27	25	39	25	45	37	29
Papua New Guinea	738	508	396	271	107	361	266	489	315	126	397	856	2957
Samoa	52	45	23	38	38	32	32	40	68	53	104	93	173
Solomon Islands	49	54	80	66	36	76	119	212	239	326	314	336	593
Timor-Leste	-5	9	231	248	383	228	535	185	145	278	280	218	287
Tonga	30	39	25	24	23	33	23	38	31	58	35	54	126
Tuvalu	5	8	3	9	37	6	8	8	19	11	17	20	15
Vanuatu	63	77	66	48	41	51	59	53	92	95	146	146	146
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>45168</b>	<b>116895</b>	<b>78202</b>	<b>89492</b>	<b>70313</b>	<b>86257</b>	<b>146302</b>	<b>227941</b>	<b>335354</b>	<b>406259</b>	<b>331315</b>	<b>309289</b>	<b>457876</b>
<b>DEVELOPING ECONOMIES<sup>d</sup></b>	<b>116501</b>	<b>237279</b>	<b>231182</b>	<b>242221</b>	<b>210218</b>	<b>271141</b>	<b>386503</b>	<b>561850</b>	<b>756752</b>	<b>1077761</b>	<b>947767</b>	<b>751391</b>	<b>979524</b>

... = Data not available at cutoff date.

- a Refers to the sum of official and net private flows. However, data for 2010 official flows only include net flows of long-term public and publicly guaranteed debt from official creditors for economies whose data were sourced from the Global Development Finance Database.
- b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.
- c For reporting economies only.
- d Includes data for all developing economies as reported in World Bank's Global Development Finance Online. For developing member economies not covered by the World Bank, data are from OECD's Geographical Distribution of Financial Flows to Aid Recipients.

Sources: ADB staff estimates based on the Global Development Finance Online (World Bank 2012); for Afghanistan; Brunei Darussalam; the Cook Islands; Hong Kong, China; Kiribati; the Republic of Korea; the Marshall Islands; the Federated States of Micronesia; Nauru; Palau; Singapore; Taipei, China; Timor-Leste; and Tuvalu: OECD.StatExtracts website (stats.oecd.org/Index.aspx).

Table 4.20 **Total External Debt of Developing Member Economies<sup>a</sup>**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	...	...	...	...	...	...	...	...	929	1974	2089	2223	2297
Armenia	...	371	916	1291	1592	1864	1970	1842	2004	2898	3406	4886	6103
Azerbaijan	...	321	1384	1322	1480	1714	1846	1941	2492	3521	4263	4531	6974
Georgia	...	1240	1638	1729	1839	1935	2064	1909	2297	2610	7352	8270	9238
Kazakhstan	...	3750	12433	14887	17981	22767	32816	43478	72443	95542	107278	111115	118723
Kyrgyz Republic	...	609	1827	1717	1851	2024	2432	2136	2471	2747	3498	3986	3984
Pakistan	20589	30169	32732	31665	33567	36003	35882	33566	36711	41531	49057	54588	56773
Tajikistan	...	634	1034	1058	1142	1149	1038	1006	950	1222	2376	2549	2955
Turkmenistan	...	402	2518	2271	1975	1743	1522	1058	886	743	638	552	422
Uzbekistan	...	1799	4633	4867	4798	4921	4823	4282	4074	4211	4686	6550	7404
<b>East Asia</b>													
China, People's Rep. of	55301	118090	145339	183761	184874	206183	245543	282955	322761	373083	379800	432197	548551
Hong Kong, China <sup>b,c</sup>	12339	29177	208260	179877	174527	372708	430121	454593	516382	711057	663372	668484	822696
Korea, Rep. of	34968	113002	141429	121346	132757	141650	150625	161413	225199	333428	317370	345677	359432
Mongolia	...	531	896	885	1036	1472	1518	1327	1440	1682	1833	2143	2444
Taipei, China <sup>b</sup>	17703	27077	34757	34336	45033	63054	80888	86732	85833	94525	90361	81963	101581
<b>South Asia</b>													
Bangladesh	12285	15726	15535	14865	16569	18315	19586	18381	20035	21298	22880	23802	24963
Bhutan	84	106	204	265	378	486	593	649	713	793	686	752	898
India	85661	95174	100243	98643	104816	117872	122587	120222	158501	202929	225994	249993	290282
Maldives	78	155	206	256	300	300	370	461	683	1038	1140	1164	1229
Nepal	1627	2410	2867	2733	2990	3163	3357	3180	3392	3602	3685	3683	3702
Sri Lanka	5863	8395	9087	8666	9686	10400	11042	11372	11887	14369	15615	17213	20452
<b>Southeast Asia</b>													
Brunei Darussalam <sup>d</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	1845	2284	2628	2697	2900	3193	3439	3515	3527	3761	4215	4364	4676
Indonesia	69848	124389	143344	132047	127790	133424	137117	134347	125343	133847	147622	162850	179064
Lao PDR	1766	2155	2501	2493	3047	2323	2616	2844	3377	4388	5008	5458	5559
Malaysia	15328	34343	41765	44983	48155	48427	52015	51855	54883	61420	66074	66272	81497
Myanmar	4695	5771	5975	5763	6728	7509	7483	7014	7264	8241	8002	8186	6352
Philippines	30580	39379	58304	58252	59906	62589	60968	61658	60412	66040	64995	63116	72337
Singapore <sup>b,c</sup>	3772	8368	220298	222073	234393	245233	287785	300359	313551	...	...	...	...
Thailand	28094	100039	79720	67191	59381	51009	49434	46362	45901	45306	49839	57886	71263
Viet Nam	23270	25428	12822	12579	13304	15908	17940	18992	18577	22713	24954	28718	35139
<b>The Pacific</b>													
Cook Islands <sup>c</sup>	1	25	55	54	59	67	74	71	39	35	35	41	76
Fiji	308	178	173	159	169	184	246	186	354	369	380	432	452
Kiribati	3	7	8	10	10	16	13	11	13	13	10	10	...
Marshall Islands	72	149	69	90	88	91	95	92	100	99	94	90	...
Micronesia, Fed. States of	20	120	63	57	58	61	62	62	63	66	68	80	80
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau <sup>b,c</sup>	...	...	10	20	20	19	20	59	59	72	75	80	78
Papua New Guinea	2594	2506	2292	2037	1858	1867	1784	1880	1826	1430	1418	1573	5822
Samoa	92	160	138	134	147	167	175	167	164	186	206	235	308
Solomon Islands	120	159	155	163	180	178	177	166	174	177	166	156	215
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	44	63	65	63	72	85	85	80	82	86	89	105	144
Tuvalu <sup>b,c</sup>	...	...	4	5	5	...	...	...	11	12	20	18	15
Vanuatu	38	49	74	72	90	97	121	82	83	98	126	130	148
<b>DEVELOPING MEMBER ECONOMIES<sup>e</sup></b>	<b>428991</b>	<b>794705</b>	<b>1288403</b>	<b>1257383</b>	<b>1297549</b>	<b>1582169</b>	<b>1772268</b>	<b>1862305</b>	<b>2107884</b>	<b>2263163</b>	<b>2280773</b>	<b>2426122</b>	<b>2854326</b>
<b>DEVELOPING ECONOMIES<sup>f</sup></b>	<b>1321823</b>	<b>2038547</b>	<b>2731304</b>	<b>2699484</b>	<b>2774765</b>	<b>3191371</b>	<b>3458430</b>	<b>3517457</b>	<b>3817474</b>	<b>4361796</b>	<b>4572667</b>	<b>4738262</b>	<b>5362553</b>

... = Data not available at cutoff date.

a Refers to the sum of public and publicly guaranteed long-term debt, private nonguaranteed long-term debt, use of IMF credit, and estimated short-term debt.

b Total external debt refers to long-term debt to OECD countries and capital markets, multilateral loans, and long-term debts to non-OECD creditor countries only. This applies to Taipei, China for data prior to 1999 and to Palau for data prior to 2001.

c Beginning 1998, OECD applied a new data series that provides total identified external debt and no longer distinguishes between long-term and short-term debts. Henceforth, short-term debt refers to debt due within a year of the reference period and long-term debt refers to the residual.

d Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

e For reporting economies only.

f Includes data for all developing economies as reported in World Bank's Global Development Finance Online. For developing member economies not covered by the World Bank, data are from economy sources.

Sources: Global Development Finance Online (World Bank 2012); *Statistical Compendium 2004-1, 2005-1, 2005-2 CD-ROM* (OECD 2004 and 2005); country sources.

## External Indebtedness

Table 4.21 **Total External Debt of Developing Member Economies**  
(% of GNI)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	...	...	...	...	...	...	...	...	11.3	19.4	19.6	...	...
Armenia	...	25.3	46.6	59.2	64.6	64.2	53.5	36.6	30.4	30.6	28.1	56.1	64.8
Azerbaijan	...	10.6	27.8	24.6	25.3	25.1	23.1	16.7	13.6	12.6	10.4	11.3	14.9
Georgia	...	48.2	51.6	53.2	54.0	48.3	39.7	29.5	29.0	25.6	58.2	77.4	80.4
Kazakhstan	...	18.5	73.0	71.2	76.5	78.3	81.5	84.5	101.3	104.1	94.2	108.4	94.3
Kyrgyz Republic	...	37.5	141.9	117.1	119.6	109.0	115.2	90.0	88.7	73.3	70.8	88.6	89.2
Pakistan	49.3	49.4	44.8	44.4	46.2	41.9	35.8	30.0	28.2	28.5	29.3	32.8	31.3
Tajikistan	...	53.6	125.4	102.7	98.1	78.5	51.9	45.0	34.8	33.6	46.5	51.9	53.1
Turkmenistan	...	16.1	92.3	66.2	45.5	29.5	22.6	14.0	9.2	6.2	4.0	3.2	2.1
Uzbekistan	...	13.5	34.2	43.5	50.3	49.1	40.3	30.0	24.0	18.8	17.0	20.1	19.0
<b>East Asia</b>													
China, People's Rep. of	15.4	16.5	12.3	14.1	12.8	12.6	12.7	12.5	11.8	10.6	8.3	8.6	9.3
Hong Kong, China <sup>a</sup>	16.4	20.6	25.0	35.0	32.0	...	...	...	...	...	...	...	...
Korea, Rep. of	13.3	21.4	26.7	24.1	23.0	22.0	20.8	19.1	23.6	34.1	30.7	32.3	30.6
Mongolia	...	37.2	79.2	69.9	74.4	93.0	76.6	53.7	42.9	40.6	33.6	48.8	44.3
Taipei, China <sup>a</sup>	10.8	10.1	11.3	12.1	15.0	20.0	22.7	24.3	22.8	24.0	22.6	21.7	23.6
<b>South Asia</b>													
Bangladesh	39.9	40.2	31.8	30.6	33.3	33.4	32.9	29.0	30.4	29.0	26.4	24.4	22.8
Bhutan	28.1	36.3	48.7	58.2	75.1	82.4	86.5	80.5	79.3	66.6	55.7	61.2	63.3
India	27.3	27.0	22.0	20.8	20.8	19.8	17.1	14.5	16.8	16.4	18.7	18.2	16.9
Maldives	40.2	40.9	34.7	43.7	49.7	45.7	51.4	63.6	77.8	102.7	94.3	92.1	86.6
Nepal	44.7	54.7	52.0	48.8	49.5	50.0	46.3	39.0	37.1	34.7	29.0	28.2	23.4
Sri Lanka	73.5	65.3	56.7	56.0	57.5	55.6	54.0	47.2	42.6	44.9	39.3	41.4	41.8
<b>Southeast Asia</b>													
Brunei Darussalam <sup>b</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	165.5	67.6	74.4	70.2	70.8	71.3	67.1	58.5	50.6	45.5	42.9	43.8	43.4
Indonesia	64.0	63.4	95.4	92.1	74.1	59.1	56.0	49.4	35.9	32.3	30.0	31.3	26.1
Lao PDR	204.0	122.6	150.3	146.7	172.6	114.1	108.5	109.0	104.0	108.4	96.3	92.3	79.0
Malaysia	36.4	40.6	48.5	52.3	51.1	46.4	44.0	39.4	36.2	33.6	30.8	35.1	35.4
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	70.2	51.5	72.0	76.4	74.0	74.8	66.8	60.0	49.9	44.5	37.4	37.5	36.2
Singapore	12.4	9.8	16.0	21.0	23.0	...	...	...	...	...	...	...	...
Thailand	33.3	60.5	66.0	59.7	48.5	37.3	32.1	27.6	23.1	19.0	19.0	22.8	23.4
Viet Nam	384.0	124.0	41.7	39.2	38.5	40.9	40.2	36.6	31.2	32.9	28.6	31.3	36.5
<b>The Pacific</b>													
Cook Islands <sup>a</sup>	1.9	26.6	60.1	56.1	52.7	43.9	41.7	38.7	20.5	15.3	14.9	20.1	31.4
Fiji	23.9	9.2	10.1	9.7	9.1	7.9	9.0	6.1	11.9	11.2	10.7	15.3	15.2
Kiribati <sup>a</sup>	11.2	12.0	11.1	15.0	12.8	16.8	12.7	10.7	12.6	10.4	7.7	8.2	...
Marshall Islands <sup>a</sup>	92.9	126.0	62.0	78.0	70.2	71.9	72.2	67.0	69.5	65.8	61.8	59.3	...
Micronesia, Fed. States of <sup>a</sup>	13.7	53.8	27.1	23.8	24.1	24.7	25.4	24.7	24.9	25.6	25.8	28.8	26.9
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau <sup>a</sup>	...	...	6.7	12.9	12.4	11.8	11.0	29.4	28.2	33.8	35.2	39.3	37.3
Papua New Guinea	83.8	57.3	69.4	71.9	67.0	59.6	50.1	41.5	37.0	22.8	17.9	20.0	62.9
Samoa	55.9	82.6	56.1	54.8	57.0	57.6	47.5	43.1	37.8	38.7	36.6	49.0	56.6
Solomon Islands	58.1	49.5	35.7	40.5	52.9	53.6	46.7	40.1	37.6	32.3	30.1	33.0	38.8
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	38.2	30.5	34.2	38.0	39.2	40.4	35.2	30.7	27.2	27.7	25.0	31.4	39.7
Tuvalu <sup>a</sup>	...	...	29.0	37.8	32.2	...	...	...	47.8	44.1	64.6	65.3	43.6
Vanuatu	23.5	22.6	27.8	27.2	34.8	31.3	33.7	21.6	19.4	19.0	20.5	21.9	20.9

... = Data not available at cutoff date, GNI = gross national income.

a GDP is used in lieu of GNI.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Global Development Finance Online (World Bank 2012), *Statistical Compendium 2004-1 CD-ROM* (OECD 2004), country sources.

**Table 4.22 Total External Debt of Developing Member Economies**  
(% of exports of goods, services, and income)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	...	...	...	...	...	...	...	...	24.9	12.4	17.6	37.5	...
Armenia	...	104.7	166.4	200.7	190.9	174.2	134.1	98.3	93.9	112.0	123.8	237.9	210.7
Azerbaijan	...	40.4	63.7	54.8	54.7	55.1	42.9	22.7	17.5	15.4	13.0	19.4	23.9
Georgia	...	...	194.1	190.4	156.8	132.0	108.7	77.9	79.4	71.2	175.8	227.8	206.2
Kazakhstan	...	62.3	118.6	143.0	152.4	149.8	142.5	139.3	168.4	172.5	134.7	219.3	177.4
Kyrgyz Republic	...	134.9	309.8	298.5	286.3	268.5	255.8	221.8	186.3	133.0	124.4	154.4	156.7
Pakistan	297.1	290.1	319.7	295.9	270.9	239.7	220.6	169.8	171.4	178.2	183.3	238.0	198.8
Tajikistan	...	...	...	...	148.4	115.4	85.0	79.6	57.3	70.7	133.8	208.0	193.6
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>													
China, People's Rep. of	91.6	77.5	49.8	59.5	49.5	41.1	36.3	32.3	28.9	26.2	22.6	30.0	28.9
Hong Kong, China <sup>a</sup>	12.3	14.1	86.0	77.9	71.3	137.4	136.4	128.7	132.3	165.1	145.0	163.7	164.5
Korea, Rep. of <sup>a</sup>	46.8	74.8	68.8	67.3	69.6	62.2	51.0	48.7	59.6	75.8	64.3	83.3	67.7
Mongolia	...	103.8	143.1	135.8	143.5	173.4	123.7	88.8	70.3	65.0	60.2	92.2	71.4
Taipei, China <sup>a</sup>	23.5	21.0	20.1	23.4	28.6	36.6	38.7	38.0	33.5	33.4	30.9	34.7	32.1
<b>South Asia</b>													
Bangladesh	577.3	334.5	213.0	215.0	236.4	225.6	209.8	172.3	153.3	148.6	129.3	139.2	114.7
Bhutan	...	...	...	...	...	344.6	433.1	4.7	186.8	120.5	99.5	140.6	...
India	366.9	241.0	160.5	150.2	142.0	133.5	101.4	75.0	78.6	80.1	70.3	90.9	80.9
Maldives	42.4	48.0	44.1	54.2	59.9	50.8	53.0	93.2	86.2	115.5	107.2	139.6	128.8
Nepal	363.7	224.7	211.7	227.0	300.8	281.4	258.8	223.4	243.6	216.9	189.4	210.1	207.6
Sri Lanka	245.8	173.4	139.2	138.0	160.3	154.9	148.4	142.8	134.8	145.7	151.0	189.2	184.3
<b>Southeast Asia</b>													
Brunei Darussalam <sup>b</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	233.3	138.8	125.2	119.6	119.2	99.9	85.8	69.4	65.4	65.2	72.9	...
Indonesia	235.1	229.4	196.1	203.6	190.3	189.4	161.7	131.4	106.6	99.9	93.2	120.9	101.3
Lao PDR	1688.4	519.1	487.3	516.1	633.0	498.1	479.0	373.0	301.1	352.6	328.3	367.3	...
Malaysia	44.4	39.9	36.5	43.1	43.6	39.7	35.1	31.1	28.7	28.3	27.3	33.5	32.1
Myanmar	1459.9	436.3	274.7	194.3	233.3	251.3	232.3	171.0	147.3	...	...	...	...
Philippines	234.7	119.8	132.3	153.5	145.6	148.8	130.9	126.5	105.3	102.2	101.6	116.2	103.3
Singapore <sup>a,c</sup>	5.5	5.3	121.4	134.8	137.0	123.2	116.5	104.3	92.2	...	...	...	...
Thailand	89.8	135.0	92.7	84.0	70.0	52.6	42.2	34.8	29.2	24.0	23.0	31.0	30.5
Viet Nam	...	...	73.3	69.3	67.1	67.6	58.7	51.3	40.7	40.7	35.1	45.1	43.9
<b>The Pacific</b>													
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	35.0	15.6	16.9	16.2	16.0	13.3	15.9	11.5	22.9	22.3	19.8	31.0	...
Kiribati <sup>d</sup>	80.8	81.4	182.4	248.8	238.8	438.6	414.0	184.5	337.1	105.8	102.7	134.9	...
Marshall Islands <sup>d</sup>	2849.2	1257.4	444.7	647.0	579.9	520.0	503.6	392.5	556.8	537.4	466.1	432.5	...
Micronesia, Fed. States of <sup>d</sup>	431.5	539.9	310.1	219.6	277.2	253.3	397.7	330.5	338.5	253.3	248.7	318.8	266.4
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau <sup>d</sup>	...	...	87.0	120.7	98.3	230.7	344.9	420.0	414.8	632.7	592.9	966.3	1079.2
Papua New Guinea	174.4	83.1	96.8	96.2	101.6	76.2	64.2	51.5	39.7	27.5	22.6	34.0	92.7
Samoa	179.2	231.6	...	...	...	...	157.2	127.5	109.4	97.8	106.1	129.8	152.7
Solomon Islands	123.2	75.1	120.6	165.2	344.8	186.5	139.5	107.5	96.6	74.6	57.3	62.7	61.7
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	102.3	...	...	197.2	152.6	163.7	177.3	133.9	184.7	169.2	147.9	195.1	261.4
Tuvalu <sup>d</sup>	...	...	1393.8	2416.7	2283.5	...	...	...	2434.4	2865.7	3366.7	3033.3	2940.0
Vanuatu	36.1	39.8	42.4	45.8	66.4	60.0	64.3	40.1	38.6	38.4	40.5	39.4	41.6

... = Data not available at cutoff date.

- a External debt as percent of exports was derived using exports of goods and services data from the national accounts.  
b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.  
c Data before 1998 and from 1998 onward are not comparable due to a change in coverage/compilation methodology.  
d External debt as percent of exports was derived using exports data from the balance of payments.

Sources: Global Development Finance Online (World Bank 2012), *Statistical Compendium 2004-1* CD-ROM (OECD 2004), country sources.



## External Indebtedness

Table 4.23 **Total Debt Service Paid by Developing Member Economies**  
(\$ million)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	...	...	...	...	...	...	...	...	9	5	8	10	9
Armenia	...	11	46	55	80	116	169	138	150	189	365	423	968
Azerbaijan	...	10	130	136	160	218	233	235	262	188	295	347	410
Georgia	...	20	118	77	129	181	234	187	273	192	710	782	813
Kazakhstan	...	235	3371	3354	4107	5302	8774	13181	14475	27171	33426	25780	47761
Kyrgyz Republic	...	60	173	177	129	163	167	139	96	189	336	268	557
Pakistan	1902	3216	2855	2996	2888	3070	4275	2435	2305	2645	3018	3495	4338
Tajikistan	...	0	63	81	96	82	99	69	64	62	128	468	683
Turkmenistan	...	104	468	544	558	449	405	307	255	200	170	165	154
Uzbekistan	...	245	886	864	760	810	871	787	851	824	860	840	595
<b>East Asia</b>													
China, People's Rep. of	7057	15066	26594	24990	31083	37509	23254	27455	27481	31811	33256	39779	62611
Hong Kong, China <sup>a</sup>	1700	3159	...	...	...	...	...	...	...	...	...	...	...
Korea, Rep. of <sup>a</sup>	8274	11870	22905	22712	25002	16288	9081	7224	7340	4538	0	2086	2843
Mongolia	...	52	39	45	52	288	41	43	48	55	81	110	171
Taipei, China <sup>a</sup>	1715	2677	45	11	10	11	5916	11006	9001	7546	11473	6079	3629
<b>South Asia</b>													
Bangladesh	735	755	766	663	716	662	652	799	711	990	888	954	1013
Bhutan	5	10	7	6	6	7	12	7	10	32	81	75	84
India	8141	13607	10920	11751	15425	25747	17486	23893	17360	39367	30964	16503	20081
Maldives	9	11	20	22	26	47	34	44	62	101	125	176	203
Nepal	68	85	102	94	104	114	117	117	139	147	162	177	187
Sri Lanka	384	452	787	742	708	594	758	420	928	837	1232	1417	1445
<b>Southeast Asia</b>													
Brunei Darussalam <sup>b</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	30	7	32	22	21	25	28	31	31	30	42	49	62
Indonesia	9946	16418	16624	15476	16875	18475	20493	20228	28281	23924	21373	24878	29298
Lao PDR	9	25	40	44	94	102	124	132	182	190	207	220	305
Malaysia	4333	6041	6433	6220	7927	9580	9177	9375	7616	10421	8778	12057	13284
Myanmar	60	250	36	40	64	50	65	71	64	54	33	29	687
Philippines	3590	5363	7059	9363	10201	10200	11478	9962	13699	10136	12199	9880	12874
Singapore <sup>a</sup>	525	1349	...	...	...	...	...	...	...	...	...	...	...
Thailand	5290	8586	13991	20312	19720	15263	12953	18177	14753	22224	17007	12427	11288
Viet Nam	174	364	1309	1219	1213	846	813	967	961	1245	1321	1217	1372
<b>The Pacific</b>													
Cook Islands <sup>a</sup>	0	1	1	1	2	2	3	3	12	2	2	2	2
Fiji	81	42	25	17	17	16	13	14	14	27	24	25	22
Kiribati	...	1	1	1	...	...	1	1	0	2	2	...	...
Marshall Islands	14	24	22	26	3	4	4	5	7	16	8	12	...
Micronesia, Fed. States of	-	18	23	11	2	2	2	2	2	3	3	3	4
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	553	626	304	269	276	191	251	308	326	1007	974	543	812
Samoa	5	5	5	5	5	5	6	6	7	7	8	8	11
Solomon Islands	12	8	9	7	6	9	17	14	4	14	15	10	21
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	2	3	5	3	3	4	4	5	4	5	5	4	5
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	2	2	2	2	2	2	3	3	4	4	5	6	6

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed, - = Magnitude equals zero.

a Refers to principal repayments on long-term debts plus interests on short-term and long-term debts.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Global Development Finance Online (World Bank 2012), *Statistical Compendium 2004-1* CD-ROM (OECD 2004), country sources.

## External Indebtedness

Table 4.24 **Total Debt Service Paid by Developing Member Economies**  
(% of exports of goods, services, and income)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	...	...	...	...	...	...	...	3.8	0.2	0.1	0.2	0.4	...
Armenia	...	3.2	8.3	8.5	9.6	10.8	11.5	7.4	7.0	7.3	13.3	20.6	33.4
Azerbaijan	...	1.3	6.0	5.7	5.9	7.0	5.4	2.8	1.8	0.8	0.9	1.5	1.4
Georgia	...	...	13.9	8.5	11.0	12.3	12.3	7.6	9.4	5.2	17.0	21.5	18.1
Kazakhstan	...	3.9	32.2	32.2	34.8	34.9	38.1	42.2	33.7	49.1	42.0	50.9	71.4
Kyrgyz Republic	...	13.3	29.4	30.8	19.9	21.6	17.6	14.4	7.2	9.2	11.9	10.4	21.9
Pakistan	27.4	30.9	27.9	28.0	23.3	20.4	26.3	12.3	10.8	11.3	11.3	15.2	15.2
Tajikistan	...	...	...	...	12.4	8.3	8.1	5.5	3.9	3.6	7.2	38.2	44.8
Turkmenistan	...	11.7	14.2	17.3	14.3	11.6	9.6	6.3	4.1	3.2	1.3	0.4	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>													
China, People's Rep. of	11.7	9.9	9.1	8.1	8.3	7.5	3.4	3.1	2.5	2.2	2.0	2.8	3.3
Hong Kong, China	2.1	1.8	...	...	...	...	...	...	...	...	...	...	...
Korea, Rep. of	11.3	8.0	10.9	13.9	...	...	...	...	...	...	...	...	...
Mongolia	0.3	10.2	6.2	7.0	7.3	33.9	3.3	2.9	2.4	2.1	2.7	4.7	5.0
Taipei, China	0.5	0.1	0.0	0.0	0.0	0.0	2.8	4.9	3.6	2.7	3.9	2.6	1.2
<b>South Asia</b>													
Bangladesh	34.6	16.1	10.5	9.6	10.2	8.2	7.0	7.5	5.4	6.9	5.0	5.6	4.7
Bhutan	...	...	...	...	...	5.1	8.8	4.7	2.7	4.8	11.8	14.1	...
India	34.9	34.4	17.5	17.9	20.9	29.2	14.5	14.9	8.6	15.5	9.6	6.0	5.6
Maldives	4.8	3.4	4.2	4.7	5.1	7.9	4.9	8.8	7.8	11.2	11.7	21.2	21.3
Nepal	15.2	7.9	7.5	7.8	10.4	10.1	9.0	8.2	9.9	8.9	8.3	10.1	10.5
Sri Lanka	16.1	9.3	12.1	11.8	11.7	8.8	10.2	5.3	10.5	8.5	11.9	15.6	13.0
<b>Southeast Asia</b>													
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...	...	...	...	...	...	...	...
Cambodia	...	0.7	1.7	1.0	0.9	1.0	0.8	0.8	0.6	0.5	0.7	0.8	...
Indonesia	33.5	30.3	22.7	23.9	25.1	26.2	24.2	19.8	24.0	17.9	13.5	18.5	16.6
Lao PDR	8.5	6.1	7.8	9.0	19.5	21.8	22.6	17.4	16.2	15.2	13.6	14.8	...
Malaysia	12.6	7.0	5.6	6.0	7.2	7.9	6.2	5.6	4.0	4.8	3.6	6.1	5.2
Myanmar	18.8	18.9	1.7	1.4	2.2	1.7	2.0	1.7	1.3	...	...	...	...
Philippines	27.6	16.3	16.0	24.7	24.8	24.3	24.7	20.4	23.9	15.7	19.1	18.2	18.4
Singapore	0.8	0.9	...	...	...	...	...	...	...	...	...	...	...
Thailand	16.9	11.6	16.3	25.4	23.2	15.7	11.0	13.6	9.4	11.8	7.8	6.7	4.8
Viet Nam	...	...	7.5	6.7	6.1	3.6	2.7	2.6	2.1	2.2	1.9	1.9	1.7
<b>The Pacific</b>													
Cook Islands	2.5	26.0	12.8	17.8	36.7	28.3	35.6	52.0	346.9	33.0	41.5	69.1	47.3
Fiji	9.1	3.7	2.4	1.7	1.6	1.2	0.8	0.9	0.9	1.6	1.2	1.8	...
Kiribati	...	...	9.3	7.9	...	...	5.2	7.6	2.9	15.4	12.3	...	...
Marshall Islands	39.8	47.8	57.9	135.8	15.1	16.9	15.5	16.0	36.4	72.6	31.5	59.3	...
Micronesia, Fed. States of	...	45.9	54.5	23.4	4.9	4.4	6.3	5.9	5.5	4.8	5.3	5.9	6.4
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	37.2	20.8	12.9	12.7	15.1	7.8	9.0	8.4	7.1	19.4	15.6	11.7	12.9
Samoa	10.6	6.6	...	...	...	...	5.5	4.4	4.6	3.6	4.2	4.7	5.2
Solomon Islands	11.8	3.8	7.1	7.1	10.9	9.9	13.1	9.1	2.4	5.9	5.2	4.0	5.9
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	3.5	...	...	8.3	7.2	6.9	8.8	8.2	9.1	9.2	9.1	7.2	9.1
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	2.3	1.3	1.1	1.0	1.4	1.3	1.8	1.3	1.7	1.5	1.4	1.7	1.7

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: Global Development Finance Online (World Bank 2012), country sources.

## Tourism

Table 4.25 **International Tourist Arrivals<sup>a</sup>**  
(thousand)

Regional Member	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	12	45	123	162	206	263	319	382	511	558	575	684	758
Azerbaijan	...	...	...	576	768	989	693	682	732	1043	1005	1280	1562
Georgia	85	387	302	298	313	368	560	983	1052	1290	1500	2032	2820
Kazakhstan	...	1471	1845	2832	2410	3073	3143	3468	3876	3447	3118	3393	4093
Kyrgyz Republic	36	59	99	140	342	398	319	766	1656	2435	2147	1316	...
Pakistan	378	557	500	498	501	648	798	898	840	823	855	907	...
Tajikistan	...	4	4	...	...	...	...	...	...	...	...	...	...
Turkmenistan	218	3	5	11	8	15	12	6	8	...	...	...	...
Uzbekistan	92	302	345	332	231	262	242	560	903	1069	1215	975	...
<b>East Asia</b>													
China, People's Rep. of	20034	31229	33167	36803	32970	41761	46809	49913	54720	53049	50875	55664	57581
Hong Kong, China	...	8814	8878	10689	9676	13655	14773	15821	17154	17320	16926	20085	22316
Korea, Rep. of	3753	5322	5147	5347	4753	5818	6023	6155	6448	6891	7818	8798	9795
Mongolia	108	137	166	229	201	301	338	386	452	446	411	456	456
Taipei, China	2332	2624	2831	2978	2248	2950	3378	3520	3716	3845	4395	5567	6087
<b>South Asia</b>													
Bangladesh	156	199	207	207	245	271	208	200	289	467	267	303	...
Bhutan	5	8	6	6	6	9	14	17	21	28	23	27	37
India	2124	2649	2537	2384	2726	3457	3919	4447	5082	5283	5168	5776	6290
Maldives	315	467	461	485	564	617	395	602	676	683	656	792	931
Nepal	363	464	361	275	338	385	375	384	527	500	510	603	736
Sri Lanka	403	400	337	393	501	566	549	560	494	438	448	654	856
<b>Southeast Asia</b>													
Brunei Darussalam <sup>b</sup>	...	...	...	...	...	119	126	158	179	226	157	214	242
Cambodia	...	...	...	...	...	987	1333	1591	1873	2001	2046	2399	2882
Indonesia	4324	5064	5153	5033	4467	5321	5002	4871	5506	6234	6324	7003	7650
Lao PDR	60	191	173	215	196	407	672	842	1142	1295	1239	1670	...
Malaysia	7469	10222	12775	13292	10577	15703	16431	17547	20973	22052	23646	24577	24714
Myanmar	117	208	205	217	206	242	232	264	248	193	243	311	391
Philippines	1760	1992	1797	1933	1907	2291	2623	2843	3092	3139	3017	3520	3917
Singapore	6070	6062	5857	5855	4703	6553	7079	7588	7957	7778	7489	9161	10390
Thailand	6952	9579	10133	10873	10082	11737	11567	13822	14464	14584	14150	15936	19098
Viet Nam	1351	2140	2330	2628	2429	2928	3477	3583	4229	4236	3747	5050	6014
<b>The Pacific</b>													
Cook Islands	48	73	75	73	78	83	88	92	97	95	101	104	112
Fiji	318	294	348	398	431	504	545	549	540	585	542	632	675
Kiribati	4	5	5	5	5	3	4	4	5	4	4	5	5
Marshall Islands	6	5	5	6	7	9	9	6	7	6	5	5	5
Micronesia, Fed. States of	...	21	15	19	18	19	19	19	21	26	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	53	58	54	59	63	89	81	82	88	79	72	86	109
Papua New Guinea	42	58	54	54	56	59	69	78	104	114	124	147	163
Samoa	68	88	88	89	92	98	102	110	117	118	129	129	127
Solomon Islands	12	5	...	...	7	6	9	11	14	16	18	21	23
Timor-Leste	...	...	...	...	...	...	...	14	22	36	44	...	...
Tonga	29	35	32	37	40	41	42	39	46	49	51	45	45
Tuvalu	1	1	1	1	1	1	1	1	1	2	2	2	...
Vanuatu	44	58	53	49	50	61	62	68	81	91	101	97	94
<b>Developed Member Economies</b>													
Australia	3726	4931	4856	4841	4746	5215	5499	5532	5644	5586	5584	5885	5875
Japan	3345	4757	4772	5239	5212	6138	6728	7334	8347	8351	6790	8611	6219
New Zealand	1409	1787	1909	2045	2104	2334	2365	2409	2455	2447	2458	2525	2601
<b>DEVELOPING MEMBER ECONOMIES<sup>c</sup></b>	<b>59142</b>	<b>91300</b>	<b>96474</b>	<b>105481</b>	<b>94422</b>	<b>122949</b>	<b>132314</b>	<b>143774</b>	<b>159784</b>	<b>162348</b>	<b>161006</b>	<b>180212</b>	<b>190732</b>
<b>REGIONAL MEMBERS<sup>c</sup></b>	<b>67622</b>	<b>102775</b>	<b>108011</b>	<b>117606</b>	<b>106484</b>	<b>136755</b>	<b>147032</b>	<b>159207</b>	<b>176409</b>	<b>178958</b>	<b>175995</b>	<b>197447</b>	<b>205669</b>

... = Data not available at cutoff date.

a For Australia; Georgia; Japan; the Republic of Korea; New Zealand; Taipei, China; and Viet Nam, data refer to international visitor arrivals at frontiers (including tourists and same-day visitors). For the rest of the economies, data refer to international tourist arrivals at frontiers (excluding same-day visitors).

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c For reporting economies only.

Sources: World Tourism Organization website (UNWTO 2012); *UNWTO Tourism Highlights*, 2012 Edition (UNWTO 2012, [mkt.unwto.org/en/content/tourism-highlights](http://mkt.unwto.org/en/content/tourism-highlights)).

Table 4.26 **International Tourism, Receipts**  
(\$ million)

Regional Member	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>													
<b>Central and West Asia</b>													
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	1	38	65	63	73	171	220	271	305	331	334	408	445
Azerbaijan	70	63	43	51	58	65	78	117	178	190	353	621	1287
Georgia	...	97	117	126	147	177	241	313	384	447	476	659	936
Kazakhstan	122	356	452	622	564	718	701	838	1013	1012	963	1005	1209
Kyrgyz Republic	5	15	24	36	48	76	73	167	346	514	459	284	640
Pakistan	110	81	88	97	122	179	182	255	276	316	272	305	358
Tajikistan	...	...	...	2	2	1	2	2	3	4	2	4	3
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	27	22	22	24	28	28	43	51	64	99	121	...
<b>East Asia</b>													
China, People's Rep. of	8730	16231	17792	20385	17406	25739	29296	33949	37233	40843	39675	45814	48464
Hong Kong, China	9604	5868	5904	7410	7072	8918	10179	11461	13566	15304	16408	22200	27686
Korea, Rep. of	5150	6834	6384	5936	5358	6069	5806	5788	6138	9774	9819	10359	12304
Mongolia	21	36	39	130	143	185	177	225	312	247	236	244	218
Taipei, China	3287	3738	4335	4583	2977	4054	4977	5136	5213	5937	6816	8721	11044
<b>South Asia</b>													
Bangladesh	25	50	48	57	57	67	70	80	76	75	70	81	87
Bhutan	5	10	9	8	8	13	19	23	28	36	32	35	48
India	2582	3460	3198	3102	4463	6170	7493	8634	10730	11832	11136	14160	17518
Maldives	211	321	327	337	402	471	287	512	602	664	608	714	...
Nepal	177	158	144	103	199	230	131	128	200	336	412	344	386
Sri Lanka	226	248	213	363	441	513	429	410	385	342	350	576	830
<b>Southeast Asia</b>													
Brunei Darussalam <sup>a</sup>	...	...	155	113	124	181	191	224	233	242	254	...	...
Cambodia	53	304	380	454	389	603	840	963	1135	1219	1082	1180	1683
Indonesia	5229	4975	5277	5285	4037	4798	4522	4448	5346	7378	5598	6957	7952
Lao PDR	51	114	104	107	74	119	139	158	189	276	268	382	406
Malaysia	3969	5011	6863	7118	5901	8203	8846	10427	14050	15277	15772	18276	18259
Myanmar	151	162	109	120	56	84	68	46	86	69	56	73	...
Philippines	1136	2156	1742	1761	1544	2017	2265	3501	4933	2499	2330	2630	3152
Singapore	7611	5142	4641	4458	3842	5327	6205	7545	9083	10714	9368	14133	17990
Thailand	8035	7483	7075	7901	7856	10043	9577	13393	16667	18173	16056	20115	26256
Viet Nam	...	...	...	...	1400	1700	2300	2850	3750	3930	3050	4450	5620
<b>The Pacific</b>													
Cook Islands	28	36	38	46	69	72	91	90	107	105	103	110	...
Fiji	291	189	205	260	345	423	485	480	499	547	422	523	...
Kiribati	2	3	3	...	...	...	3	2	4	3	3	...	...
Marshall Islands	3	3	3	3	4	5	6	7	5	3	4	3	...
Micronesia, Fed. States of	...	17	15	17	17	17	17	19	20	22	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	53	59	57	76	97	97	99	113	117	113	124	...
Papua New Guinea	25	7	5	3	4	6	4	4	4	2	1	2	2
Samoa	35	41	39	45	54	69	79	90	103	112	116	124	134
Solomon Islands	16	4	5	1	2	4	2	26	27	37	44	54	73
Timor-Leste	...	...	...	...	...	...	...	20	26	14	18	21	...
Tonga	10	7	7	6	10	13	15	16	14	19	16	31	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	45	56	46	54	64	75	85	92	119	169	190	217	226
<b>Developed Member Economies</b>													
Australia	8130	9289	9224	9971	12438	15214	16848	17840	22308	24755	25385	29798	31443
Japan	3224	3373	3306	3497	8848	11265	12430	8470	9345	10821	10305	13199	10966
New Zealand	2318	2272	2340	3159	4232	5098	5211	4792	5414	5037	4586	4906	5527
<b>DEVELOPING MEMBER ECONOMIES<sup>b</sup></b>	<b>57016</b>	<b>63394</b>	<b>65821</b>	<b>71128</b>	<b>65307</b>	<b>87518</b>	<b>96034</b>	<b>112627</b>	<b>133320</b>	<b>148953</b>	<b>143131</b>	<b>176061</b>	<b>205217</b>
<b>REGIONAL MEMBERS<sup>b</sup></b>	<b>70688</b>	<b>78328</b>	<b>80846</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>	<b>253153</b>

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

b For reporting economies only.

Sources: World Tourism Organization website (UNWTO 2012) and *UNWTO Tourism Highlights 2012 Edition* (UNWTO 2012, <http://mkt.unwto.org/en/content/tourism-highlights>); Balance of Payments Statistics Online (IMF 2012, <http://elibrary-data.imf.org/>); for Taipei, China: economy sources.

## Transport, Electricity, and Communications

### Snapshots

- The People's Republic of China (PRC) and India account for almost two-thirds of road networks in Asia and the Pacific region.
- Economies with high per capita incomes have the highest road densities and most motor vehicles per kilometer of road in the region.
- The region accounted for nearly 40% of the world's electricity production in 2009.
- Economies with high per capita income have high per capita electric power consumption.
- More than half of the region's economies have reached 80% electrification of households.
- The number of fixed broadband internet subscriptions continues to expand, but penetration remains low in developing members in Asia and the Pacific.

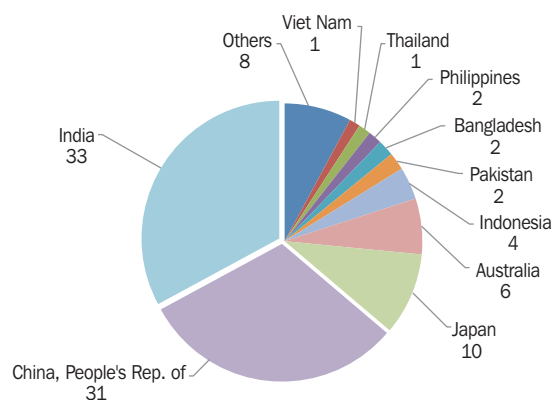
### Key Trends

Asia's two most populous economies account for almost two-thirds of the region's road networks (Figure 5.1). The combined road networks, measured in kilometers, of the PRC and India cover 64% of the region's total road networks, based on the latest data available. Japan accounts for 10% of the region's road networks, and Australia for 6%. Bhutan had the greatest expansion of its road network, growing by 9.5% in 2003 (the latest year for which data are available) from 1990. Bhutan's road network is among the smallest in the region.

Economies with high per capita incomes generally have high road densities<sup>1</sup> and numbers of motor vehicles per kilometer of road<sup>2</sup> (Figures 5.2 and 5.3). The latest available data on road density show that Singapore has the highest road density in the region—much higher than in other ADB developed members. The PRC has the second longest road network in the region but it also has a comparatively low road density of 414 kilometers (km) of road per 1,000 square kilometers of land area. India, on the other hand, has the largest road network in the region and a high road density, at 1,382 km per 1,000 square kilometers of land area. Two other South Asian economies (Bangladesh and Sri Lanka) and three East Asian economies (Hong Kong, China; the Republic of Korea; and Taipei, China) also have high road densities.

In the number of motor vehicles per kilometer of road (or "vehicle density"), Hong Kong, China has the most, with Singapore a close second. The Republic of Korea and Taipei, China also have high vehicle densities, surpassing the other regional developed economies. Except for the Maldives, South Asian economies have the lowest motor vehicle densities.

Figure 5.1 Distribution of Road Networks in Asia and the Pacific, Latest Year (%)

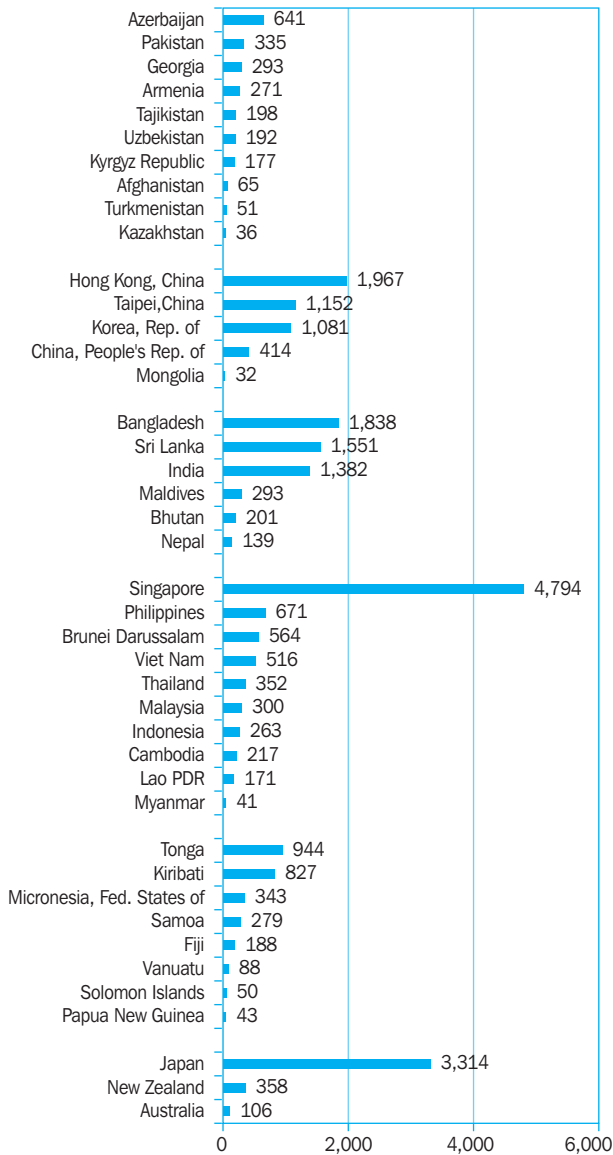


Source: Table 5.1.

<sup>1</sup> "Road density" is measured as the total road network of a country in kilometers divided by its land area (expressed in 1,000 square kilometers).

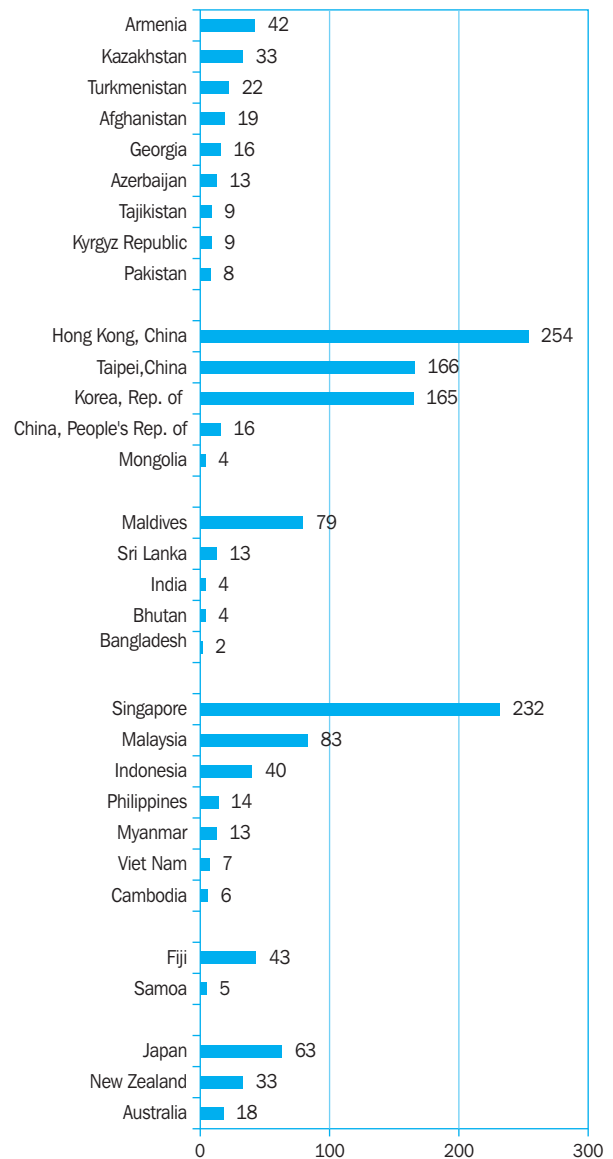
<sup>2</sup> Motor vehicles include cars, buses, and freight vehicles but not two-wheelers.

Figure 5.2 Road Density, Latest Year



Source: Table 5.1.

Figure 5.3 Motor Vehicles per Kilometer of Road, 2009



Source: Table 5.3.

**Asia and the Pacific region accounted for nearly 40% of the world's electricity production in 2009.** The top electricity producer was the PRC, generating 3,696 billion kilowatt-hours (kWh)—18% of the electricity produced in the region—in 2009. The PRC's production grew at an average of 11% annually from 2000 to 2009, the region's highest growth rate. The PRC has been generating the largest amount of electricity in the region since 2000.

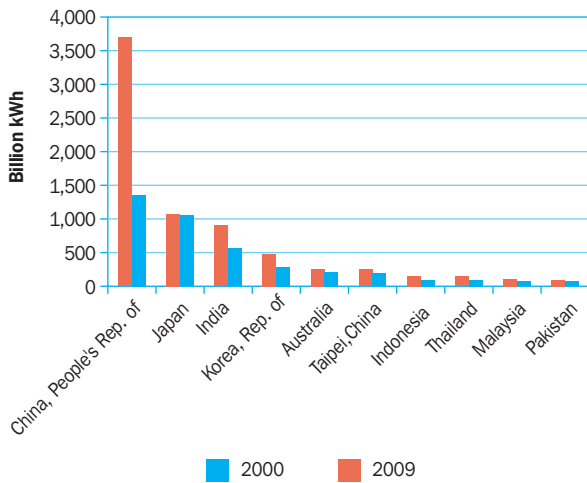
Figure 5.4 presents the top 10 producers of electricity in the region. Their output accounted for 35% of the world's electricity production in 2009.

Electricity is generated from power plants using inputs such as coal, oil, gas, nuclear energy, and renewable sources such as hydropower, geothermal, solar, wind, and tide and wave energy. A huge amount of electricity in the region is generated from power plants that use carbon fuels, particularly coal which is the most polluting carbon fuel. Almost 60% of electricity produced in the region in 2009 came from coal-fired power plants, only 15% was produced using renewable resources.

Figure 5.5 shows the distribution of electricity production by resources used by the top electricity

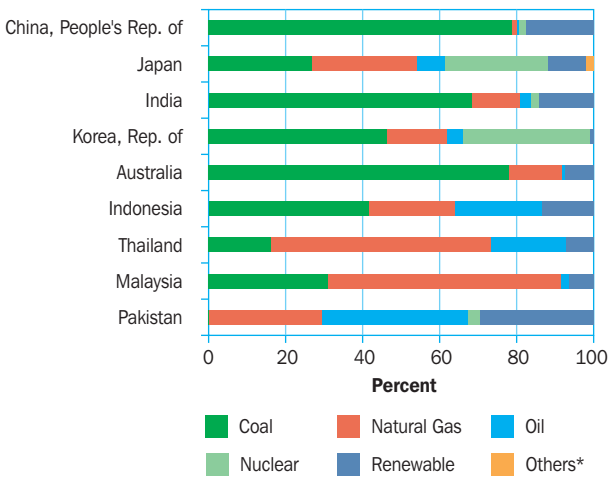
producers in the region. This excludes Taipei,China, because a breakdown of its electricity production by source was not available. All economies in the figure use coal to some extent for their electricity production, although Pakistan uses very little coal. All economies also use natural gas to produce electricity, but only five use nuclear energy: the PRC, India, Japan, the Republic of Korea, and Pakistan. The PRC is largely dependent on coal for its electricity needs. All economies use some renewable resources to generate a small share of their electricity, the Republic of Korea's share is very minimal.

Figure 5.4 Top 10 Electricity Producers, Asia and the Pacific, 2009



Source: World Development Indicators Online (World Bank 2012).

Figure 5.5 Sources of Electricity (Top Producers), 2009

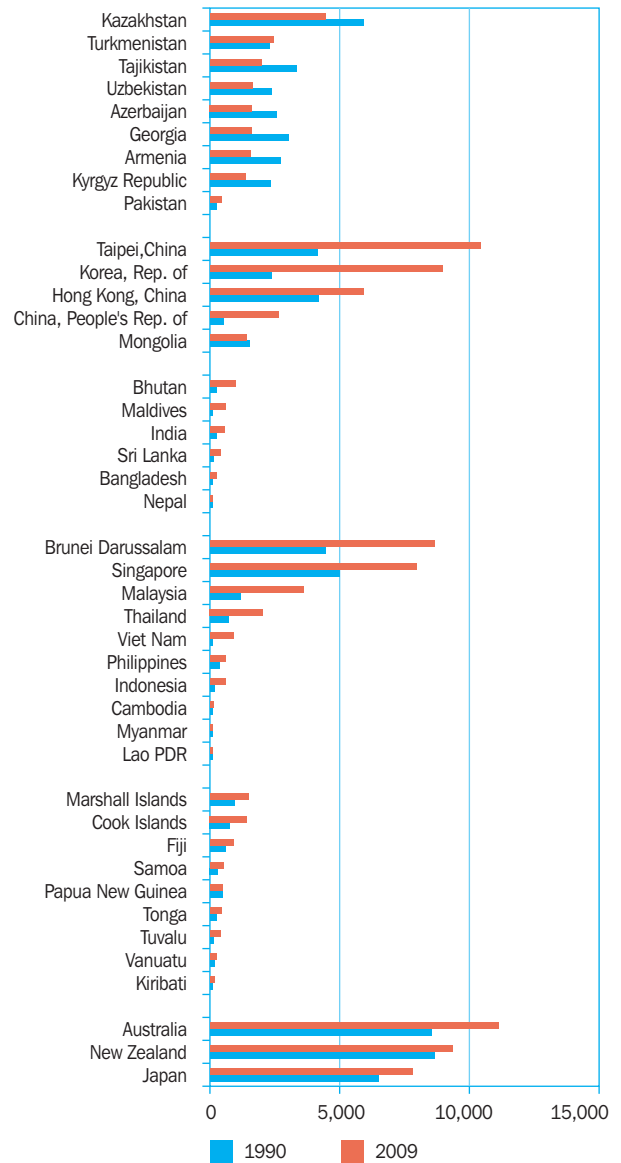


Note: \* = Computed as residual and includes nuclear sources; combustible renewables and waste; and geothermal, solar, wind, and other sources.

Source: World Development Indicators Online (World Bank 2012).

**Economies with high per capita income also have high per capita electric power consumption** (Figure 5.6). Australia has the region's highest recorded annual per capita consumption, at 11,113 kWh per person, followed by Taipei,China. Despite the PRC's strong economic growth in recent years and increasing production of electricity, its per capita electric power consumption is only 11th in the region. Economies with low electric power consumption per capita are mostly found in the Pacific, South Asia, and the lower income economies in Southeast Asia.

Figure 5.6 Per Capita Electric Power Consumption (kWh), 1990 to Latest Years



kWh = kilowatt-hour.  
Source: Table 5.6.

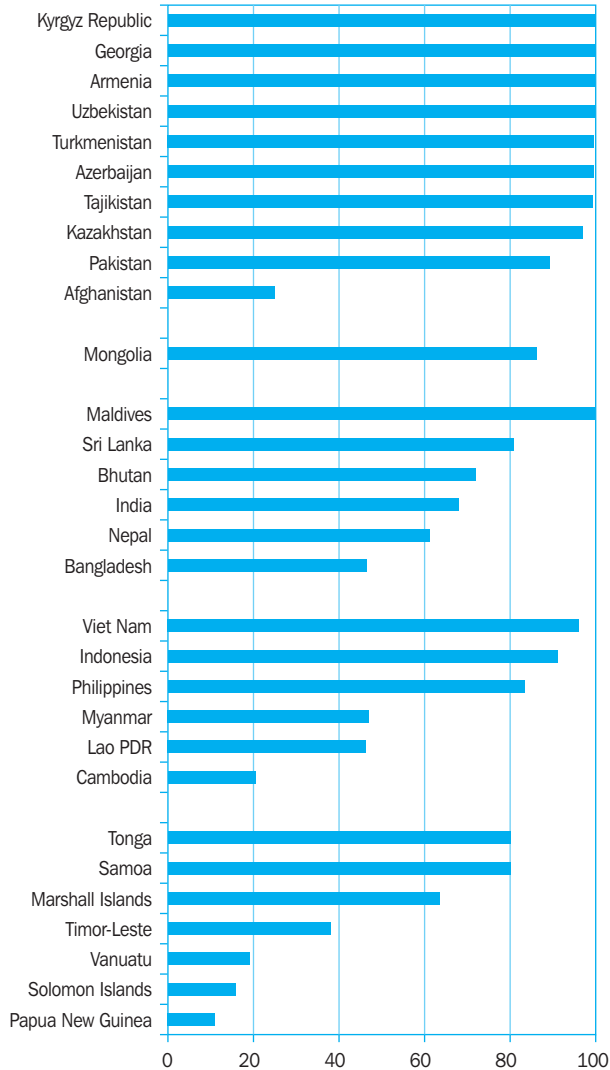
Contrary to the general trend of increasing per capita consumption in the region, Central and West Asian economies, except for Pakistan, decreased their per capita consumption from 1990 to the latest year for which data are available.

**More than half of the region’s economies have achieved 80% electrification of households.** Figure 5.7 shows household electrification rates—the percentage of households with an electricity connection in the latest year. Of the 30 economies presented, 17 have at least 80% of their households covered. A majority of the Central and West Asia economies are nearing a 100% electrification rate, while a majority of South Asian economies have rates above 60%. For Southeast Asia and

the Pacific, electrification varies widely, ranging from a very low 11% to a high of almost 100%, although some economies in the Pacific have electrification rates below 40%. Nine economies are still below the 50% household electrification rate.

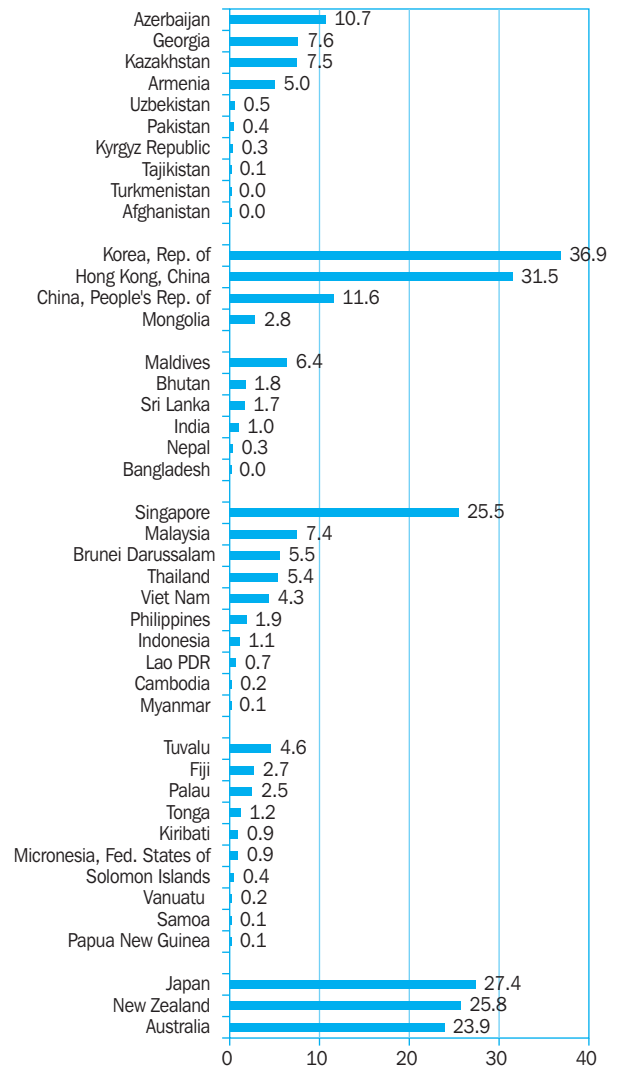
**Fixed broadband internet subscription rates have expanded but penetration remains low in Asia and the Pacific** (Figure 5.8). The region has experienced a surge in fixed broadband internet subscriptions during the last 11 years, led by the PRC, where subscription rates grew at an average annual rate of 80.4% from 2000 to 2011. Other economies with large increases are India and the Republic of Korea. Among developed economies, New Zealand enjoyed the biggest increase in broadband

Figure 5.7 **Electrification Rate, Latest Year**  
(per capita kWh)



Source: Table 5.6.

Figure 5.8 **Fixed Broadband Subscription per 100 Inhabitants, 2011**



Source: International Telecommunication Union (ITU).



subscription, with an average annual increase of 50% from 2000 to 2011. Although most economies in the Pacific registered increased subscriptions during that same period, a majority of them still have low numbers of fixed broadband subscriptions.

Despite strong growth in fixed broadband subscriptions, “penetration levels”—the numbers of subscribers per 100 inhabitants—remain low in some economies. The region’s penetration level varies widely, ranging from a low of almost zero to a high of 36.9. As calculated by the International Telecommunication Union, the region’s average penetration level is 6.4. This is below the world’s penetration rate of 8.5 per 100 population but higher than in Africa (0.2) and the Middle East (2.1). Economies that have the region’s highest penetration rates are the higher income economies: Hong Kong, China; the Republic of Korea; and Singapore. Their rates are comparable to if not higher than those of the developed economies.

## Data Issues and Comparability

Data for each year, or on the most current year for all types of road indicators, are scarce. Consequently, writers can describe but not draw the analytical results that may be needed to convince policy makers to adopt corrective measures. The most recent data are usually 2–3 years lagged. For example, for the road indicators network, the latest vehicles and safety data are for 2009. For many indicators, there is a 20-year lag before data are complete across most of the region. Some subregions, especially the Pacific, have incomplete or no data, as is the case for road indicators that estimate the number of accidents, injuries, and deaths. Given the size of the Pacific island countries, no data are expected for rail transport. Efforts of the national road agencies or institutions to hasten collecting and updating data are well recognized. However the problems in data organization, collection, methodology, and dissemination pose a continuing challenge to improve the quality of data so they include the entire Asia and the Pacific region, yield comparable data results, and are of good quality.

Data for the indicator on the household electrification rate are lacking. Rather than having data for one starting and one ending year, data for each are posted over a range of years, with the result that the data are not comparable. This could indicate infrequent or irregular timing in the submission of data, making data inconsistent and limiting possibilities for analysis.

Similarly, data on the sources of electricity are noticeably incomplete. The Pacific island economies, which have limited resources for power generation, provide no data on the source of their electricity generated. The latest data for electricity sources are for 2009, showing at least a 2-year lag in reporting and processing data.

Data on telephone and internet subscriptions are updated according to the latest year, which is 2011, although there is a one-year lag for the timing and release of data. Frequency in the submission of data is also regular because most countries posted data for several years, except for a handful of Pacific Island countries. Most data come from questionnaires the International Telecommunications Union send to participating countries. Where data are incomplete, other information and reports are sourced from the ministries in charge of telecommunication and staff estimates.

## References

- International Telecommunication Union website ([http://www.itu.int/ITU-D/ict/statistics/at\\_glance/keytelecom.html](http://www.itu.int/ITU-D/ict/statistics/at_glance/keytelecom.html)), accessed on 23 July 2012.
- International Road Federation. 2011. World Road Statistics compilation 1963–2009. CD-ROM ordered 11 May 2012.
- World Bank. 2012. World Development Indicators (<http://data.worldbank.org/indicator>), accessed on 7 July 2012.

Table 5.1 Road Indicators: Network

Regional Member	Roads, Total Network (thousand kilometers)		Road Density (kilometers of road per thousand square kilometers of land area)		Paved Roads (% of total roads)		Access to an All- Season Road (% of rural population)
	1990	Latest Year	1990	Latest Year	1990	Latest Year	Latest Year
<b>Developing Member Economies</b>							
<b>Central and West Asia</b>							
Afghanistan	21.0	42.2 (2006)	...	64.6 (2006)	13.3	29.3 (2006)	...
Armenia	7.7	7.7 (2009)	270.0	270.5 (2009)	99.2	93.6 (2009)	...
Azerbaijan	52.4	52.9 (2006)	...	640.7 (2006)	93.9 (1994)	50.6 (2006)	67.0 (2002)
Georgia	21.6	20.3 (2007)	310.8	292.5 (2007)	93.8	94.1 (2007)	...
Kazakhstan	158.3	96.8 (2009)	...	35.9 (2009)	55.1	88.5 (2009)	...
Kyrgyz Republic	18.9	34.0 (2007)	...	177.3 (2007)	90.0	91.1 (2001)	75.6 (1998)
Pakistan	169.2	258.4 (2009)	219.5	335.1 (2009)	65.4 (2006)	...	61.3 (2004)
Tajikistan	29.9	27.8 (2000)	213.4	198.4 (2000)	71.6	82.7 (1995)	73.7 (2003)
Turkmenistan	21.3	24.0 (2000)	45.3	51.1 (2000)	73.5	81.2 (2001)	...
Uzbekistan	72.5	81.6 (2000)	170.4	191.8 (2000)	79.0	87.3 (2001)	57.0 (2000)
<b>East Asia</b>							
China, People's Rep. of	1181.0	3860.8 (2009)	...	413.9 (2009)	72.1	53.5 (2008)	...
Hong Kong, China	1.5	2.1 (2009)	1424.2	1967.4 (2009)	100.0	100.0 (2009)	...
Korea, Rep. of	56.7	105.0 (2009)	574.4	1081.2 (2009)	71.5	79.3 (2009)	...
Mongolia	42.4	49.3 (2002)	27.3	31.7 (2002)	10.2	3.5 (2002)	36.0 (2003)
Taipei, China	20.0	40.3 (2008)	553.9	1151.5 (2008)	...	...	...
<b>South Asia</b>							
Bangladesh	188.0	239.2 (2003)	1444.3	1837.8 (2003)	7.2	9.5 (2003)	37.0 (2000)
Bhutan	2.3	8.1 (2003)	...	200.9 (2003)	77.1	62.0 (2003)	47.0 (2003)
India	2000.0	4109.6 (2008)	672.7	1382.2 (2008)	47.3	49.5 (2008)	60.0 (2001)
Maldives	...	0.1 (2005)	...	293.3 (2005)	...	100.0 (2005)	...
Nepal	6.8	19.9 (2008)	...	138.6 (2008)	37.5	53.9 (2008)	17.2 (2003)
Sri Lanka	93.0	97.3 (2003)	1483.0	1551.4 (2003)	32.0 (1991)	81.0 (2003)	...
<b>Southeast Asia</b>							
Brunei Darussalam <sup>a</sup>	1.0	3.0 (2008)	...	564.0 (2008)	31.4	81.1 (2008)	...
Cambodia	35.8	38.3 (2004)	202.8	216.7 (2004)	7.5	6.3 (2004)	80.7 (2003)
Indonesia	288.7	476.3 (2009)	159.4	262.9 (2009)	45.1	56.9 (2009)	...
Lao PDR	14.0	39.6 (2009)	...	171.4 (2009)	24.0	13.7 (2009)	64.4 (2002)
Malaysia	54.0	39.6 (2009)	...	300.5 (2004)	70.0	82.8 (2006)	...
Myanmar	25.0	27.0 (2005)	38.3	41.3 (2005)	10.9	11.9 (2005)	...
Philippines	160.6	200.0 (2003)	538.5	670.9 (2003)	16.6 (1994)	9.9 (2003)	...
Singapore	2.8	3.4 (2009)	4176.1	4794.3 (2009)	97.1	100.0 (2009)	...
Thailand	72.2	180.1 (2006)	141.3	352.4 (2006)	55.3	98.5 (2000)	...
Viet Nam	96.1	160.1 (2007)	295.2	516.3 (2007)	23.5	47.6 (2007)	83.5 (2004)
<b>The Pacific</b>							
Cook Islands	...	...	...	...	...	...	...
Fiji	3.1	3.4 (2000)	166.9	188.3 (2000)	44.5	49.2 (2001)	...
Kiribati	...	0.7 (2000)	...	827.2 (2000)	...	...	...
Marshall Islands	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	0.2 (2000)	...	342.9 (2000)	15.9	17.5 (2001)	...
Nauru	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...
Papua New Guinea	18.5	19.6 (2000)	40.9	43.3 (2000)	3.2	3.5 (2001)	68.0 (1996)
Samoa	...	2.3 (2001)	...	279.2 (1998)	42.0 (1995)	14.2 (2001)	...
Solomon Islands	1.2	1.4 (2001)	43.2	49.7 (2000)	2.1	2.4 (2001)	...
Timor-Leste	...	...	...	...	...	...	89.5 (2001)
Tonga	...	0.7 (2000)	...	944.4 (2000)	27.0 (1995)	27.0 (2001)	...
Tuvalu	...	...	...	...	...	...	...
Vanuatu	...	1.1 (2000)	...	87.8 (2000)	21.6	23.9 (2001)	...
<b>Developed Member Economies</b>							
Australia	810.3	817.1 (2009)	105.5	106.4 (2009)	35.0	43.5 (2009)	...
Japan	1114.7	1207.9 (2009)	3057.3	3313.8 (2009)	69.2	80.1 (2009)	...
New Zealand	92.7	94.3 (2009)	352.0	358.1 (2009)	57.0	66.2 (2009)	...

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: *World Road Statistics* (International Road Federation 1995 and 2011), World Development Indicators Online (World Bank 2012).

## Transport

Table 5.2 Road Indicators: Vehicles

Regional Member	Total Motor Vehicles (thousands)		Motor Vehicles (per 1,000 people)		Motor Vehicles (per kilometer of road)	
	1990	2009	1990	2009	1990	2009
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	863.3	...	29	...	19 (2008)
Armenia	16.6	315.5 (2007)	5	105 (2007)	2	42 (2007)
Azerbaijan	373.8	912.7	52	104	11	13 (2007)
Georgia	331.4 (1998)	641.8	74 (1998)	151	16 (1998)	16 (2003)
Kazakhstan	1368.0	3162.4	82 (1998)	199	11 (1998)	33
Kyrgyz Republic	...	309.5 (2007)	...	59 (2007)	...	9 (2007)
Pakistan	553.7	2170.4	5	13	3	8
Tajikistan	17.9	257.3 (2007)	3	38 (2007)	1	9 (2008)
Turkmenistan	...	534.3 (2008)	...	106 (2008)	...	22 (2008)
Uzbekistan	...	...	...	...	...	...
<b>East Asia</b>						
China, People's Rep. of	12827.3 (2008)	62136.9	10 (1998)	47	10 (1998)	16
Hong Kong, China	375.4	520.8	64	74	253	254
Korea, Rep. of	3394.8	17325.2	79	355	60	165
Mongolia	67.8 (2008)	190.5 (2008)	29 (1998)	72 (2008)	1 (1998)	4 (2008)
Taipei, China	2937.7	6718.7	144	291	151	166 (2008)
<b>South Asia</b>						
Bangladesh	122.0 (1993)	426.0	1 (1993)	3	5 (1993)	2 (2008)
Bhutan	...	39.9	...	57	...	4 (2008)
India	3663.7	21200.1	5	18	3 (1993)	4 (2006)
Maldives	...	7.4	...	24	...	79 (2008)
Nepal	...	148.2 (2007)	...	5 (2007)	...	...
Sri Lanka	337.2	951.4	20	47	4	13 (2008)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	120.3	270.9 (2007)	120	696 (2007)	90	...
Cambodia	4.7	284.6 (2005)	0	20 (2005)	0	6 (2005)
Indonesia	2806.1	18281.4	16	79	12	40
Lao PDR	35.6	121.8 (2007)	9	21 (2007)	3	...
Malaysia	2252.8	9604.6	...	350	46	83 (2008)
Myanmar	...	330.5	...	7	...	13 (2008)
Philippines	603.9	2990.7	9	33	3	14 (2008)
Singapore	396.1	778.3	147	156	142	232
Thailand	2578.8	8923.4 (2006)	46	...	49	...
Viet Nam	...	1146.3 (2007)	...	13 (2007)	...	7 (2008)
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	150.7	...	177	...	43 (2008)
Kiribati	...	13.9 (2007)	...	144 (2007)	...	...
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of	...	4.0 (2007)	...	36 (2007)	...	...
Nauru	...	...	...	...	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	56.1 (2007)	...	9 (2008)	...	...
Samoa	...	10.8 (2005)	59 (2005)	...	...	5 (2005)
Solomon Islands	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...
Tonga	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...
<b>Developed Member Economies</b>						
Australia	9051.9	15050.3	530	688	12 (1991)	18
Japan	57701.7	75176.4	467	589	52	63 (2008)
New Zealand	1800.3	3096.7	527	718	20	33

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: World Road Statistics (International Road Federation 2011).

Table 5.3 Road Indicators: Safety

Regional Member	Number of Injury Accidents (per 100,000 population)			Number of Persons Killed in Road Accidents (per 100,000 population)		
	1990	2000	2009	1990	2000	2009
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	7.7	...	...	6.5 (2007)
Armenia	...	30.4	64.9	...	6.9	10.5
Azerbaijan	23.7	24.7	31.8	17.6	7.4	10.6
Georgia	...	36.2	128.7	...	10.6	17.4
Kazakhstan	34.6	76.0	78.9	11.9	13.8	18.2
Kyrgyz Republic	...	54.3	86.2 (2008)	...	12.4	18.9
Pakistan	12.5	6.5 (2002)	5.7	4.4	3.8 (1998)	3.1
Tajikistan	79.0	21.6	23.9	15.3	6.6	6.9
Turkmenistan	...	41.1 (2002)	...	...	10.9 (1998)	13.2 (2006)
Uzbekistan	...	...	...	...	...	...
<b>East Asia</b>						
China, People's Rep. of	...	48.9	17.9	...	7.4	5.1
Hong Kong, China	267.4	222.7	204.4	5.6	3.3	2.0
Korea, Rep. of	595.5	617.9	475.9	28.8	21.8	12.0
Mongolia	...	249.8	...	...	14.1	21.5 (2007)
Taipei, China	30.6	238.7	800.8	19.3	15.3	9.1
<b>South Asia</b>						
Bangladesh	1.4 (1993)	4.9	...	1.0 (1993)	2.9	2.0 (2006)
Bhutan	...	33.0	...	...	...	16.4 (2007)
India	33.8	38.5	42.1	6.5	7.8	10.9
Maldives	...	...	...	...	0.6 (2003)	2.7 (2003)
Nepal	...	...	...	...	...	3.4 (2007)
Sri Lanka	213.0	280.2	159.9 (2007)	11.0	11.1	11.2
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	...	...	709.5 (2006)	...	12.3	7.4 (2008)
Cambodia	2.7	23.2	27.8 (2003)	0.9	3.2	10.8 (2007)
Indonesia	...	...	27.4	...	4.6 (2003)	8.7
Lao PDR	22.4	82.1	86.9 (2006)	3.3	6.8	11.9
Malaysia	486.2	1088.9	1380.9 (2008)	22.4	26.2	24.6
Myanmar	...	10.2	10.9 (2003)	...	2.7	3.3
Philippines	...	18.7	4.4 (2008)	...	1.1	1.2 (2008)
Singapore	225.5	179.9	170.5	7.7	5.3	3.7
Thailand	72.5	120.0	175.0 (2006)	12.5	19.5	15.8
Viet Nam	...	28.6	14.3	...	9.6	13.2
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	...	99.2 (2005)	...	9.5 (2004)	5.5
Kiribati	...	...	...	...	...	7.4 (2007)
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	1.8 (2007)
Nauru	...	...	...	...	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	3.7 (2007)
Samoa	...	...	...	...	...	11.2 (2007)
Solomon Islands	...	...	...	...	...	3.8 (2007)
Timor-Leste	...	...	...	...	...	...
Tonga	...	315.8 (2002)	329.0 (2003)	...	9.0 (2002)	7.8 (2007)
Tuvalu	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	3.5 (2007)
<b>Developed Member Economies</b>						
Australia	129.4	...	6.2	13.7	9.5	6.8
Japan	520.8	734.6	577.5	9.1	7.2	4.5
New Zealand	385.0	203.0	257.8	21.9	12.0	8.9

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: *World Road Statistics* (International Road Federation 2011).

## Transport

Table 5.4 Rail Indicators

Regional Member	Rail Lines (total route, kilometers)			Rail Network, Length per Land Area (kilometers per thousand square kilometers)		
	1990	2000	2010	1990	2000	2010
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	...	...	...	...	...	...
Armenia	845	711	826	29.7	29.6	29.0
Azerbaijan	...	2116	2079	...	25.6	25.2
Georgia	1583	1562	1566	22.8	22.5	22.5
Kazakhstan	14465	13545	14202	5.4	5.0	5.3
Kyrgyz Republic	...	...	417	...	...	2.2
Pakistan	8775	7791	7791	11.4	10.1	10.1
Tajikistan	...	...	621	...	...	4.4
Turkmenistan	...	2529	3115	...	...	6.6
Uzbekistan	...	3641 (2005)	4227	...	8.6	9.9
<b>East Asia</b>						
China, People's Rep. of	53378	58656	66239	5.7	6.3	7.1
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	3091	3123	3379	31.3	31.6	34.8
Mongolia	1920	1810	1814	1.2	1.2	1.2
Taipei, China	1105	1190	1741	30.6	32.9	48.2
<b>South Asia</b>						
Bangladesh	2746	2768	2835	21.1	21.3	21.8
Bhutan	...	...	...	...	...	...
India	62367	62759	63974	21.0	21.1	21.5
Maldives	...	...	...	...	...	...
Nepal	...	...	...	...	...	...
Sri Lanka	1453	1449 (2004)	1463 (2008)	23.2	...	23.3 (2008)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	...	...	...	...	...	...
Cambodia	600	601	650 (2005)	3.4	3.4	3.7 (2005)
Indonesia	...	3370	3370 (2008)	...	...	1.9 (2008)
Lao PDR	...	...	...	...	...	...
Malaysia	1668	1622	1665	5.1	4.9	5.1
Myanmar	3336	...	...	5.1	...	...
Philippines	479	491	479 (2008)	1.6	1.6	1.6 (2008)
Singapore	...	...	...	...	...	...
Thailand	3861	4103	4429	7.6	8.0	8.7
Viet Nam	2832	3142	2347	8.7	10.1	7.6
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...
Nauru	...	...	...	...	...	...
Palau	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...
Samoa	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...
Tonga	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...
<b>Developed Member Economies</b>						
Australia	6612	9458 (1997)	8615	0.9	1.2 (1997)	1.1
Japan	20254	20134	20035	55.6	55.2	55.0
New Zealand	4029	3913	3913 (1999)	15.3	14.9	14.9 (1999)

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); ADB staff estimates; for Taipei, China: Council for Economic Planning and Development.

Table 5.5 Electricity Production and Sources

Regional Member	Total Electricity		Sources of Electricity (% of total)									
	Production (billion kWh)		Coal		Natural Gas		Oil		Hydropower		Others <sup>a</sup>	
	1990	2009	1990	2009	1990	2009	1990	2009	1990	2009	1990	2009
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	1.1	0.6 (2011)	...	...	...	...	...	...	...	...	...	...
Armenia	10.4	5.7	-	-	16.4	20.3	68.6	-	15.0	35.6	-	44.0
Azerbaijan	23.2	18.9	-	-	0.0	85.1	97.0	2.6	3.0	12.2	-	-
Georgia	13.7	8.6	-	-	15.6	12.9	29.2	0.5	55.2	86.6	-	-
Kazakhstan	87.4	78.7	71.1	74.9	10.5	13.1	10.0	3.2	8.4	8.7	-	-
Kyrgyz Republic	15.7	11.1	13.1	2.8	23.5	8.0	-	-	63.5	89.3	-	-
Pakistan	37.7	95.4	0.1	0.1	33.6	29.4	20.6	38.0	44.9	29.4	0.8	3.0
Tajikistan	18.1	16.1	-	-	9.1	2.0	-	-	90.9	98.0	-	-
Turkmenistan	14.6	16.0	-	-	95.2	100.0	-	-	4.8	0.0	-	-
Uzbekistan	56.3	49.9	7.4	4.1	76.4	75.1	4.4	2.1	11.8	18.7	-	-
<b>East Asia</b>												
China, People's Rep. of	621.2	3695.9	71.3	78.8	0.4	1.4	7.9	0.4	20.4	16.7	-	2.7
Hong Kong, China	28.9	38.7	98.2	70.8	-	28.9	1.8	0.4	-	-	-	-
Korea, Rep. of	105.4	478.0 (2010)	16.8	44.1 (2010)	9.1	20.2 (2010)	17.9	3.2 (2010)	6.0	0.8 (2010)	50.2	31.7 (2010)
Mongolia	3.5	4.2	92.4	96.4	-	-	7.6	3.6	-	-	-	-
Taipei, China	51.0	252.2 (2011)	...	...	...	...	...	...	...	...	...	...
<b>South Asia</b>												
Bangladesh	7.7	37.9	-	1.7	84.3	89.4	4.3	4.8	11.4	4.1	-	-
Bhutan	1.6	6.9	...	...	...	...	...	...	...	...	...	...
India	289.4	899.4	66.2	68.6	3.4	12.4	3.5	2.9	24.8	11.9	2.1	4.3
Maldives	0.0	0.2 (2010)	...	...	...	...	...	...	...	...	...	...
Nepal	0.9	3.1	-	-	-	-	0.1	0.4	99.9	99.6	-	-
Sri Lanka	3.2	9.9	-	-	-	-	0.2	60.3	99.8	39.5	-	0.2
<b>Southeast Asia</b>												
Brunei Darussalam <sup>b</sup>	1.2	3.6	-	-	99.1	99.0	0.9	1.0	-	-	-	-
Cambodia	0.2 (1995)	1.2	-	-	-	-	100.0	95.6	...	3.9	...	0.5
Indonesia	32.7	155.5	29.9	41.8	2.2	22.1	46.9	22.8	17.5	7.3	-	6.0
Lao PDR	0.8	8.6 (2010)	...	...	...	...	...	...	...	...	...	...
Malaysia	23.0	105.1	12.3	30.9	20.4	60.7	50.0	2.0	17.3	6.3	-	-
Myanmar	2.5	5.9	1.6	-	39.3	19.6	10.9	8.9	48.1	71.5	-	-
Philippines	26.3	61.9	7.3	26.6	-	32.1	47.2	8.7	23.0	15.8	-	16.8
Singapore	15.7	41.8	-	-	-	81.0	100.0	18.8	-	-	-	0.2
Thailand	44.2	148.4	25.0	19.9	40.2	70.7	23.5	0.5	11.3	4.8	-	4.0
Viet Nam	8.7	83.2	23.1	18.0	0.1	43.4	15.0	2.5	61.8	36.0	-	-
<b>The Pacific</b>												
Cook Islands	0.0	0.0 (2010)	...	...	...	...	...	...	...	...	...	...
Fiji	0.4	0.8 (2010)	...	...	...	...	...	...	...	...	...	...
Kiribati	0.0	0.0 (2010)	...	...	...	...	...	...	...	...	...	...
Marshall Islands	0.0	0.1 (2006)	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	0.1 (1995)	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
Nauru	0.0	0.0 (2007)	...	...	...	...	...	...	...	...	...	...
Palau	0.2 (1992)	0.2	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	1.8	3.0 (2008)	...	...	...	...	...	...	...	...	...	...
Samoa	0.1	0.1	...	...	...	...	...	...	...	...	...	...
Solomon Islands	0.0	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
Timor-Leste	0.1 (2006)	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
Tonga	0.0	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	0.0	0.1 (2011)	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>												
Australia	154.3	256.2 (2010)	78.7	75.8 (2010)	9.3	16.2 (2010)	2.3	0.7 (2010)	9.2	4.9 (2010)	-	2.4 (2010)
Japan	835.5	1071.3 (2010)	14.0	26.9 (2010)	20.0	27.5 (2010)	18.5	7.0 (2010)	10.7	6.9 (2010)	24.2	31.6 (2010)
New Zealand	32.3	44.8 (2010)	2.1	4.6 (2010)	17.7	22.0 (2010)	0.0	0.0 (2010)	71.9	55.1 (2010)	-	18.3 (2010)

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, - = Magnitude equals zero, kWh = kilowatt-hour.

a Computed as residual and includes nuclear sources; combustible renewables and waste; and geothermal, solar, wind, and other sources.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); Country sources for Afghanistan; Bhutan; the Cook Islands; Fiji; Kiribati; the Lao PDR; the Maldives; the Marshall Islands; the Fed. States of Micronesia; Nauru; Palau; Papua New Guinea; Samoa; Solomon Islands; Taipei, China; Timor-Leste; Tonga; Tuvalu; and Vanuatu.

## Electricity

Table 5.6 **Electric Power Consumption and Electrification**

Regional Member	Electric Power Consumption (per capita kWh)		Household Electrification Rate (% of households)	
	1990	2009	Earliest Year	Latest Year
<b>Developing Member Economies</b>				
<b>Central and West Asia</b>				
Afghanistan	20 (2001)	64 (2011)	...	25.0 (2005)
Armenia	2718	1550	98.9 (2000)	99.8 (2005)
Azerbaijan	2584	1620	97.0 (1999)	99.5 (2006)
Georgia	3039	1585	...	99.9 (2002)
Kazakhstan	5905	4448	99.9 (1995)	97.0 (1999)
Kyrgyz Republic	2331	1386	99.8 (1997)	100.0 (2002)
Pakistan	267	449	59.6 (1990)	89.2 (2006)
Tajikistan	3346	1985	97.0 (1999)	99.3 (2003)
Turkmenistan	2293	2446	...	99.6 (2000)
Uzbekistan	2383	1636	99.6 (1996)	99.7 (2002)
<b>East Asia</b>				
China, People's Rep. of	511	2631	...	...
Hong Kong, China	4178	5925	...	...
Korea, Rep. of	2373	8980	...	...
Mongolia	1540	1411	67.3 (2000)	86.2 (2005)
Taipei, China	4159	10431 (2011)	...	...
<b>South Asia</b>				
Bangladesh	49	252	17.8 (1993)	46.5 (2007)
Bhutan	254	977 (2005)	41.1 (2003)	72.0 (2007)
India	268	571	50.9 (1992)	67.9 (2005)
Maldives	113	613 (2010)	83.8 (2000)	99.8 (2009)
Nepal	35	91	17.9 (1996)	61.2 (2006)
Sri Lanka	151	408	...	80.7 (2002)
<b>Southeast Asia</b>				
Brunei Darussalam <sup>a</sup>	4438	8662	...	...
Cambodia	11 (1995)	131	16.6 (2000)	20.5 (2005)
Indonesia	160	590	48.9 (1991)	91.1 (2007)
Lao PDR	64	103 (1997)	...	46.3 (2002)
Malaysia	1171	3614	...	...
Myanmar	46	104	...	47.0 (2002)
Philippines	363	593	71.3 (1998)	83.3 (2008)
Singapore	4983	7949	...	...
Thailand	703	2045	...	...
Viet Nam	98	918	78.4 (1997)	96.1 (2005)
<b>The Pacific</b>				
Cook Islands	775	1429 (2010)	...	...
Fiji	607	901 (2010)	...	...
Kiribati	109	171 (2010)	...	...
Marshall Islands	961	1502 (2006)	...	63.4 (1999)
Micronesia, Fed. States of	...	...	...	...
Nauru	...	...	...	...
Palau	...	...	...	...
Papua New Guinea	485	470 (2008)	...	11.0 (1996)
Samoa	312	529 (2011)	78.8 (1991)	80.0 (1994)
Solomon Islands	102	113 (2011)	...	15.7 (1999)
Timor-Leste	0	0	27.0 (2002)	38.0 (2009)
Tonga	250	430 (2011)	...	80.0 (1994)
Tuvalu	124	406 (2006)	...	...
Vanuatu	177	249 (2011)	18.0 (1994)	19.1 (1999)
<b>Developed Member Economies</b>				
Australia	8527	11113	...	...
Japan	6486	7819	...	...
New Zealand	8664	9346	...	...

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed, kWh = kilowatt-hour.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); Demographic and Health Surveys Online (ICF Macro 2011); Results Measurement System Online (International Development Association 2012); PRISM website ([www.spc.int/prism/country/mh/stats/Utility/Lighting.pdf](http://www.spc.int/prism/country/mh/stats/Utility/Lighting.pdf)); Country sources for Afghanistan; Bhutan; the Cook Islands; Fiji; Kiribati; the Lao PDR; the Maldives; the Marshall Islands; the Fed. States of Micronesia; Nauru; Palau; Papua New Guinea; Samoa; Solomon Islands; Taipei, China; Timor-Leste; Tonga; Tuvalu; and Vanuatu.

Table 5.7 Telephone and Internet Subscriptions

Regional Member	Fixed Telephone Lines (thousands)		Mobile Cellular Telephone (thousands)		Fixed Broadband Internet (thousands)	
	2000	2011	2000	2011	2000	2011
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	29.0	13.5	0.0	17558.3	0.2 (2004)	1.5 (2010)
Armenia	533.4	577.5	17.5	3210.8	0.0 (2001)	154.5
Azerbaijan	801.2	1683.9	420.4	10120.1	1.0 (2002)	998.3
Georgia	508.8	1342.4	194.7	4430.6	0.4 (2001)	329.2
Kazakhstan	1834.2	4237.3	197.3	23102.7	1.0 (2003)	1215.7
Kyrgyz Republic	376.1	480.0	9.0	5653.0	0.0 (2002)	16.0
Pakistan	3053.5	5721.7	306.5	108894.5	14.6 (2005)	737.8
Tajikistan	218.5	380.0	1.2	6324.0	0.0 (2003)	5.0
Turkmenistan	364.4	547.0	7.5	3511.0	0.1 (2008)	1.1
Uzbekistan	1655.0	1927.7	53.1	25441.8	2.8 (2003)	147.8
<b>East Asia</b>						
China, People's Rep. of	144830.0	285120.0	85260.0	986253.0	22.7	156487.0
Hong Kong, China	3925.8	4348.5	5447.3	14930.9	444.5	2246.1
Korea, Rep. of	25863.0	29469.0	26816.4	52506.8	3870.0	17859.0
Mongolia	117.5	187.6	154.6	2942.3	0.0 (2001)	79.3
Taipei, China	12642.2	12678.7	17873.8	28861.8	229.0	5888.5
<b>South Asia</b>						
Bangladesh	491.3	1600.0	279.0	85000.0	43.7 (2007)	65.0
Bhutan	14.1	27.5	0.0	484.2	2.1 (2008)	13.1
India	32436.0	32685.0	3577.1	893862.5	50.0 (2001)	12830.0
Maldives	24.4	24.1	7.6	530.4	0.2 (2002)	20.4
Nepal	266.9	845.5	10.2	13354.5	1.0 (2006)	94.7
Sri Lanka	767.4	3608.4	430.2	18319.4	0.3 (2001)	359.0
<b>Southeast Asia</b>						
Brunei Darussalam <sup>a</sup>	80.5	79.8	95.0	443.2	1.9 (2001)	22.4
Cambodia	30.9	530.0	130.5	10000.0	0.1 (2002)	22.0
Indonesia	6662.6	38617.0	3669.3	236799.5	4.0	2736.4
Lao PDR	40.9	107.6	12.7	5480.9	0.0 (2003)	41.7
Malaysia	4628.0	4242.9	5121.7	36661.3	4.0 (2001)	2147.8
Myanmar	271.4	521.1	13.4	1243.6	0.2 (2005)	29.3
Philippines	3061.4	6782.1	6454.4	87256.4	10.0 (2001)	1791.0
Singapore	1946.0	2016.9	2747.4	7755.2	69.0	1323.4
Thailand	5591.1	6720.2	3056.0	78667.9	1.6 (2001)	3738.2
Viet Nam	2542.7	10175.0	788.6	127318.0	1.1 (2001)	3838.2
<b>The Pacific</b>						
Cook Islands	...	...	...	...	...	...
Fiji	86.4	129.9	55.1	727.0	7.0 (2001)	23.3
Kiribati	3.4	8.5	0.3	13.8	0.0	0.9
Marshall Islands	4.0	4.4 (2010)	0.4	3.8 (2010)	0.0	0.0 (2008)
Micronesia, Fed. States of	9.6	8.5 (2010)	0.0	27.5 (2010)	0.0 (2003)	1.0 (2010)
Nauru	...	...	...	...	...	...
Palau	6.9 (2002)	6.9	0.0	15.4	0.1 (2004)	0.5
Papua New Guinea	64.8	130.0	8.6	2400.0	3.0 (2008)	7.5
Samoa	8.5	35.3 (2010)	2.5	167.4 (2010)	0.0 (2004)	0.2 (2010)
Solomon Islands	7.7	8.4	1.2	274.9	0.2 (2004)	2.4
Timor-Leste	2.0 (2003)	3.1	0.0	614.2	0.0 (2003)	0.6
Tonga	9.7	30.0	0.2	55.0	0.0 (2002)	1.3
Tuvalu	0.7	1.5	0.0	2.1	0.1 (2004)	0.5
Vanuatu	6.6	5.0 (2010)	0.4	285.3 (2010)	0.0 (2003)	0.5 (2010)
<b>Developed Member Economies</b>						
Australia	10050.0	10540.0	8562.0	24490.0	122.8 (2001)	5410.0
Japan	61957.0	64585.0	66784.4	129868.4	854.7	34615.9
New Zealand	1831.0	1880.0	1542.0	4820.0	4.7	1138.0

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: International Telecommunication Union World Telecommunication/ICT Indicators Database (International Telecommunication Union 2012); Country source for Taipei, China.



## Energy and Environment

### Snapshots

- Asia and the Pacific region accounts for close to 40% of world energy demand, but most countries rely on imports to fill their energy requirements.
- Fossil fuel subsidies in the region, though generally lower than those in the Middle East, are considerable, exceeding 20% of supply costs in several Asian countries.
- A majority of the region's economies improved the efficiency with which they use energy during 2000–2009, with some improving their GDP per unit of energy use by more than 60%. This is a welcome development, given that energy remains the largest contributor to greenhouse gas (GHG) emissions, which tend to increase with the region's continued economic growth.

### Key Trends

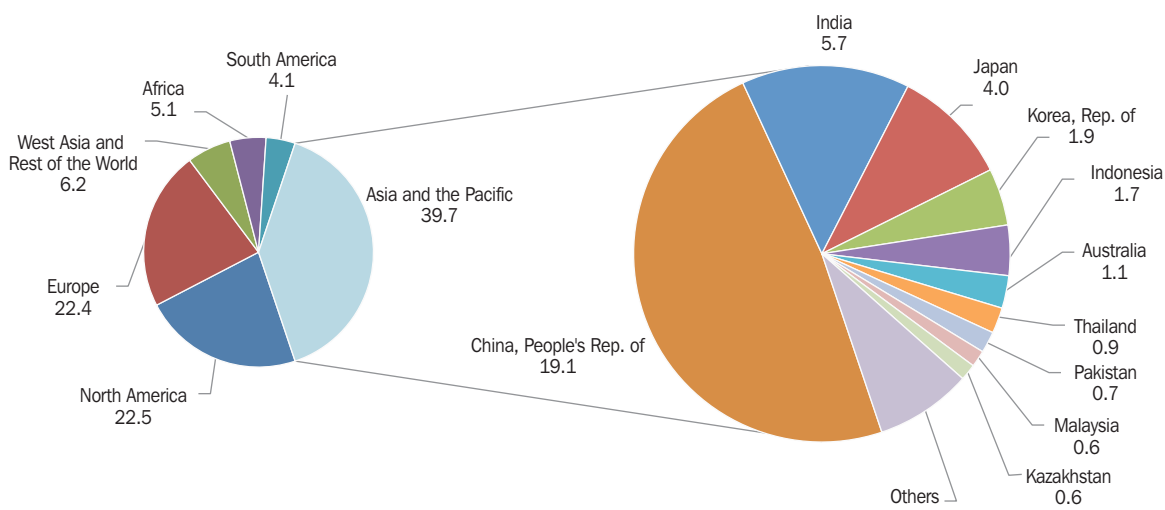
**Asia and the Pacific account for the largest share of world energy demand.** The region consumes over 39% of the world's energy while North America and Europe account for about 22% each. The People's Republic of China (PRC) accounts for almost half of Asia's energy consumption at 19%, more than three times India's consumption of 6% and almost five times Japan's consumption of 4% (Figure 6.1).

The region's growing energy demand has real implications for the world's efforts to control GHG emissions. Fossil fuels, which account for over 70% of GHG

emissions, continue to be the primary source for energy generation (EDGAR 2009). For example, the PRC used energy from fossil fuel for 87% of the total energy it used in 2009 (World Bank 2012).

**A majority of Asian economies rely on imports for their energy consumption requirements.** Figure 6.2 shows net energy imports (imports less exports) as a percentage of each economy's domestic energy use from 2007 to 2009. Bars to the left are for economies that are net energy exporters, economies on the right side of the bar are

Figure 6.1 Percentage Breakdown of Energy Use by Region, 2009  
(kilotons of oil equivalent)



Sources: Table 6.4 and World Development Indicators Online (World Bank 2012).

net importers.<sup>1</sup> Economies such as Singapore and Hong Kong, China import almost all their energy requirements and Armenia, Georgia, Japan, the Republic of Korea, and the Kyrgyz Republic import more than 50% of their energy requirements.

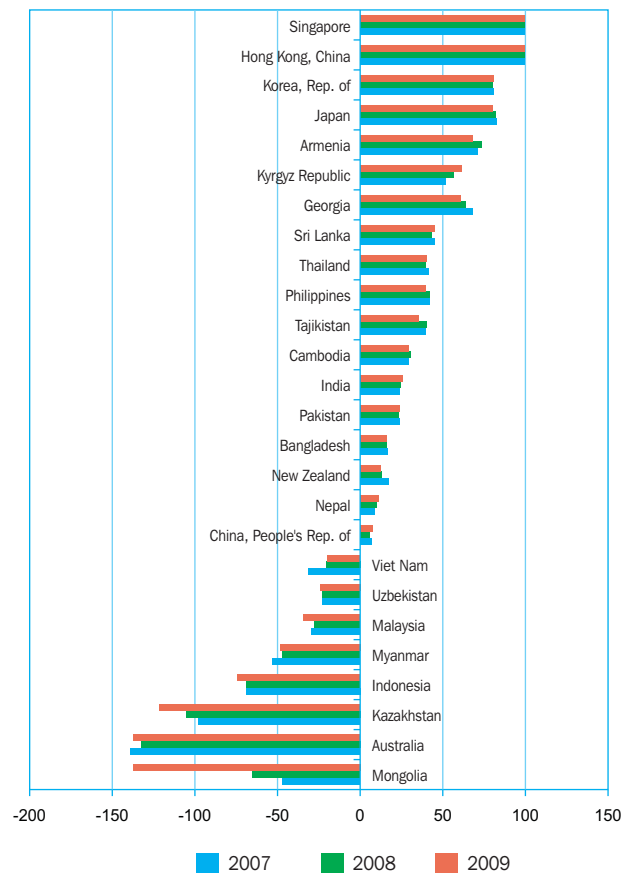
Concern about energy security has led some economies in the region to secure energy supplies through foreign direct investments in countries in Central Asia, Africa, and the Americas that have rich energy resources. The PRC, India, and the Republic of Korea are particularly noted for these activities (UNCTAD 2011). A parallel strategy has been to diversify into alternative energy sources by investing in renewables. Successful investments in renewables enhance efforts to reduce GHG emissions.

**Most economies have improved their energy efficiency.** GDP per unit of energy, or “energy productivity,” is calculated by first converting each country’s GDP to US dollars using purchasing power parities. This is then divided by all types of energy, each type being converted to standard units or “oil equivalents” by the relevant conversion factors. Energy efficiency is an important constituent of climate change mitigation efforts, and has popularly been termed the “fifth fuel.”

Energy efficiency is influenced by several factors, including changes in industrial structure, technology level, and energy mix. In general, agriculture and services generate higher GDP per energy unit than manufacturing. Gains in energy productivity may result from a shift from manufacturing to services. Another factor that may have an important influence on energy efficiency is fossil fuel subsidies, which tend to encourage overconsumption of fossil fuels (Box 6.1).

Figure 6.3 shows the change in energy productivity between 2000 and 2009. Armenia, Azerbaijan, Tajikistan, Turkmenistan, and Uzbekistan achieved improvements of more than 60%. The efficiency improvements in these

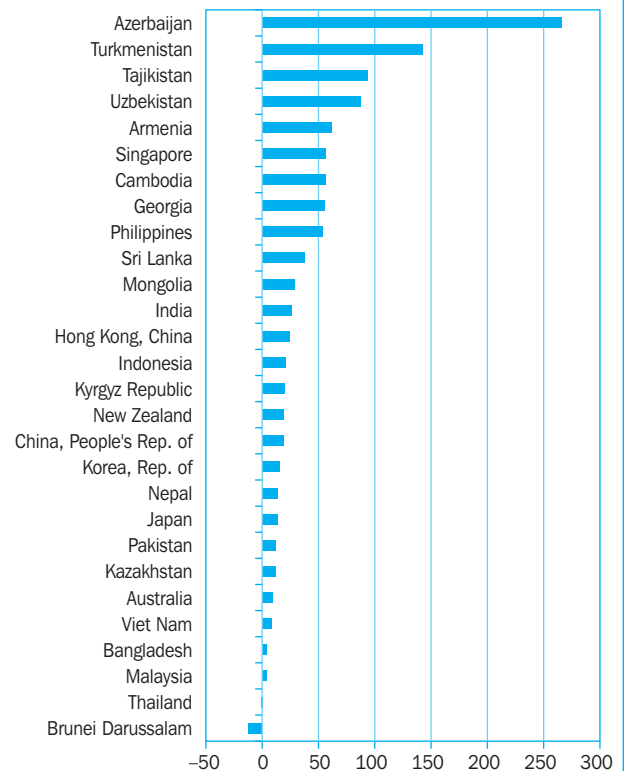
Figure 6.2 Net Energy Imports as a Percentage of Energy Use, 2007–2009



Note: Azerbaijan, Brunei Darussalam, and Turkmenistan are omitted to avoid distorting the figure, as their net exports are several times larger than their domestic energy use.

Source: Table 6.3.

Figure 6.3 Percentage Change in GDP per Unit of Energy Use between 2000 and 2009



GDP = gross domestic product.

Source: Table 6.1.

1. Azerbaijan, Brunei Darussalam, and Turkmenistan are omitted to avoid distorting the figure, as their net exports are several times larger than their domestic energy use.

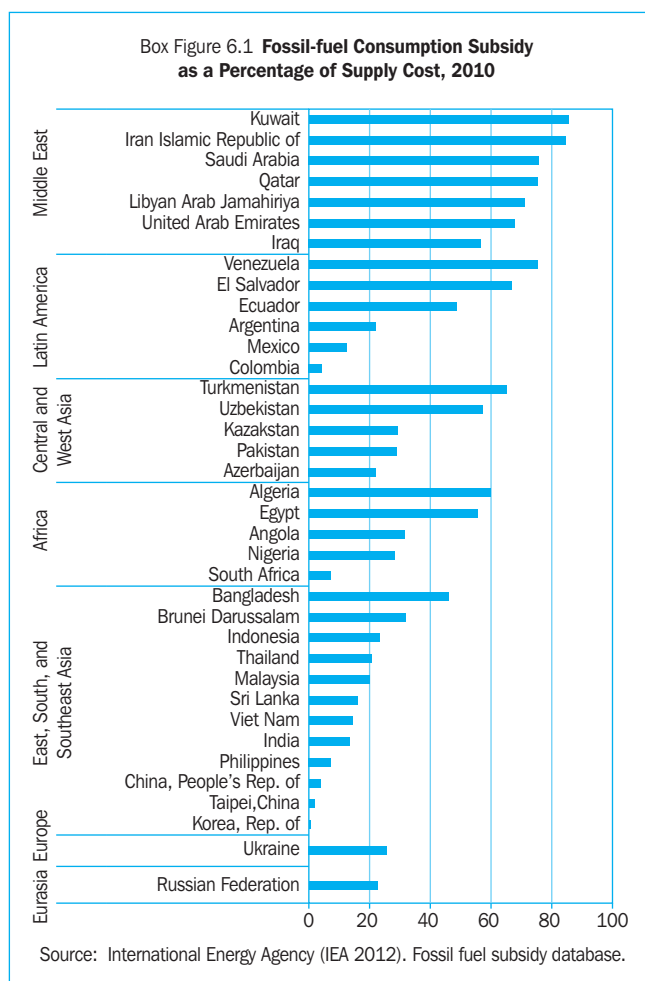
Box 6.1 Fossil Fuel Consumption Subsidies

The Figure in this box shows the subsidy rates (as a percentage of supply cost) for fossil fuel consumption of 37 economies. Oil and gas exporting economies in the Middle East (Egypt, Iran, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and the United Arab Emirates); Latin America (El Salvador and Venezuela); Central and West Asia (Turkmenistan and Uzbekistan); and Africa (Algeria) are notable for subsidy rates of over 50%, indicating that consumers in these countries paid less than 50% of the price prevailing in the international market.

Fossil fuel subsidies encourage high and wasteful consumption patterns while ignoring the negative externalities to the environment through carbon dioxide (CO<sub>2</sub>) emissions and smog. Moreover, by underpricing fossil fuel energy sources, such subsidies also act as a deterrent to investment and innovation in renewable energies.

According to International Energy Agency estimates, completely phasing out fossil fuel consumption subsidies by 2020 would reduce the global energy demand by 3.9% and cut energy-related CO<sub>2</sub> emissions by 4.7%. However, phasing out fossil fuel subsidies can be politically challenging for most economies, especially during times of high fuel prices. Nonetheless, some economies recognize that these subsidies are not the most cost-effective or efficient way of helping the poor, and have taken steps to phase the subsidies out. For example, Indonesia plans to reduce spending on energy subsidies by 40% by 2013; Malaysia reduced subsidies on gasoline, diesel, and liquid petroleum gas (LPG) in July 2010; and India raised domestic prices for gasoline, LPG, and kerosene in June 2011.

Source: IEA (2011).



former Soviet republics that have access to cheap oil and gas are notable. Meanwhile, Brunei Darussalam is conspicuous for becoming less energy efficient, probably attributable to its substantial energy subsidy per capita, which at \$840 is the highest in the region (IEA 2012).

**Asia's economic expansion was accompanied by rising GHG emissions.** The environmental Kuznet's curve predicts that GHG emissions will continue to increase with economic growth, but taper off after countries reach a certain level of per capita income.<sup>2</sup> Figure 6.4 shows the per capita carbon dioxide (CO<sub>2</sub>) emissions plus the CO<sub>2</sub> equivalents of the other two principal GHGs—nitrous oxide and methane gas—for 2005. Brunei Darussalam, Australia, and New Zealand have the highest per capita emissions in the region, and only 9 of the 29 economies showed reduced or maintained their per capita emissions.

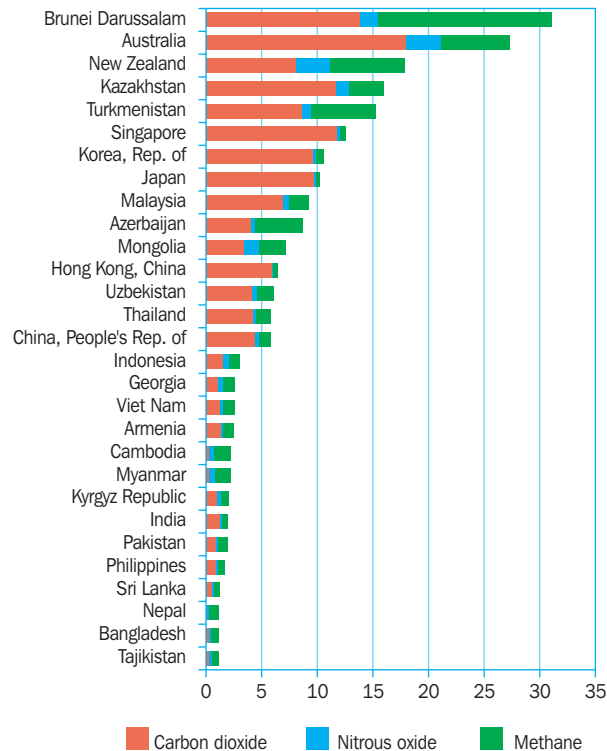
<sup>2</sup> The Special Chapter discusses the environmental Kuznet's curve for Asia and the Pacific.

Increases in per capita emissions were highest in the PRC (from 4.0 to 5.8 tons), Turkmenistan (from 12.7 to 15.3 tons), and Azerbaijan (5.8 to 8.7 tons).

CO<sub>2</sub>, which primarily comes from burning fossil fuels is by far the largest contributor to global warming among the GHGs. The PRC and India, the region's highest CO<sub>2</sub> emitters, accounted for 23% and 6% (respectively) of global emissions in 2008 (US EPA 2012); and they are the first and fourth largest emitters globally.

Climate change is predicted to have severe economic and social costs for economies in the region especially those in major river basins such as the Ganges and Mekong, as well as small island and archipelagic countries. Unfortunately, rounds of international climate change negotiations, the most recent of which has been the Rio+20 conference, have yet to come up with concrete and binding agreements on cutting GHG emissions or

Figure 6.4 Per Capita Emissions of Carbon Dioxide, Methane, and Nitrous Oxide, 2005 (tons)



Source: Table 6.6.

on assisting poorer economies with climate change adaptation strategies. This stands in stark contrast to the success of the Montreal Protocol, which has virtually eliminated the production and consumption of ozone depleting chlorofluorocarbons (CFCs), as is evident from Table 6.6. Meanwhile, a carbon cap and trade scheme is a potential tool by which countries can efficiently reduce GHGs. Such mechanisms are nascent in the region. Only New Zealand has such a system in place, but if all goes according to plans, Australia may have one by 2013 and the PRC, Japan, the Republic of Korea, and Taipei, China will have nationwide systems by 2015 (Scott 2011). These plans have given rise to talk about the possibility of an Asia-Pacific carbon trading scheme, which can magnify the potential to cap emissions by forming the region's major emitters into a unified market.

## Data Issues and Comparability

Most of the energy data are compiled by the International Energy Agency using standard procedures and conversion factors for all countries.

Statistics on CFC consumption are collected by the United Nations Industrial Development Organization as part of the process of monitoring the 2006 Montreal Protocol on limiting CFC emissions. Other United Nations agencies monitor output of GHGs and other pollutants.

Statistics on water pollution are based on analyses of water drawn from sites in a sample of lakes and rivers. It is expensive to identify and maintain a sample of sites that will accurately measure nationwide water pollution. Comparability between countries is generally less than comparability over time for a single country.

The Food and Agriculture Organization monitors land use and forestry data using country reports and satellite imagery.

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## Energy

Table 6.1 **GDP Per Unit of Energy Use**  
(constant 2005 PPP \$ per kilogram of oil equivalent)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	1.4	3.4	3.5	3.9	4.7	5.1	5.3	5.0	5.6	5.7	5.8	5.7
Azerbaijan	1.3	1.1	1.8	1.9	2.1	2.3	2.4	2.7	3.8	5.2	5.3	6.4
Georgia	2.4	2.2	3.8	4.5	4.8	5.0	5.2	5.5	5.7	5.8	6.6	6.0
Kazakhstan	1.6	1.4	2.3	2.7	2.5	2.6	2.4	2.6	2.4	2.4	2.4	2.5
Kyrgyz Republic	1.5	2.4	3.1	3.5	3.1	3.1	3.3	3.3	3.4	3.4	3.9	3.7
Pakistan	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.5	4.5	4.5	4.7	4.7
Tajikistan	3.0	2.7	2.8	3.1	3.4	3.7	3.7	4.1	3.4	3.8	4.8	5.4
Turkmenistan	0.7	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.7
Uzbekistan	0.9	0.8	0.8	0.8	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.5
<b>East Asia</b>												
China, People's Rep. of	1.4	2.1	3.1	3.3	3.4	3.3	3.1	3.2	3.3	3.5	3.6	3.7
Hong Kong, China	15.6	16.4	14.8	14.1	15.4	15.4	17.7	19.2	19.5	19.3	20.0	18.4
Korea, Rep. of	5.2	4.9	4.7	4.8	4.9	5.0	5.1	5.2	5.4	5.5	5.5	5.4
Mongolia	1.6	1.7	2.3	2.3	2.3	2.5	2.7	2.8	2.8	2.9	3.1	2.9
Taipei, China	...	...	...	...	...	...	...	...	...	...	...	...
<b>South Asia</b>												
Bangladesh	6.2	6.1	6.8	6.5	6.7	6.7	6.9	6.9	6.9	7.0	7.1	7.0
Bhutan	16.8	...	...	...	...	...	11.7	11.2	11.6	11.8	...	...
India	3.3	3.5	4.0	4.1	4.1	4.4	4.4	4.7	4.9	5.1	5.1	5.0
Maldives	...	...	...	...	...	...	6.7	6.9	6.5	6.9	...	...
Nepal	2.3	2.6	2.7	2.8	2.7	2.8	2.8	2.8	2.9	3.0	3.1	3.1
Sri Lanka	6.3	7.5	6.9	7.0	7.2	7.2	7.5	7.7	8.3	8.7	9.5	9.5
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	7.2	6.4	6.5	7.1	7.6	6.8	6.7	6.9	5.6	5.5	5.0	5.7
Cambodia	...	2.7	3.2	3.3	3.5	3.6	3.8	4.2	4.5	4.8	5.1	5.1
Indonesia	3.7	4.0	3.6	3.6	3.6	3.8	3.7	3.9	4.0	4.2	4.4	4.3
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	5.5	5.1	5.1	4.8	5.0	4.9	5.3	4.8	5.0	4.9	4.9	5.2
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	5.4	5.2	5.2	5.5	5.7	5.9	6.4	6.7	7.1	7.7	7.7	7.9
Singapore	6.7	6.2	8.0	6.9	7.5	10.7	9.3	10.4	10.9	14.6	14.0	12.5
Thailand	5.4	5.5	4.8	4.7	4.6	4.6	4.5	4.6	4.8	4.8	4.7	4.8
Viet Nam	2.5	3.0	3.4	3.4	3.4	3.5	3.3	3.5	3.7	3.7	3.8	3.7
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	8.8	...	...	...	...	...	5.3	6.2	6.5	6.9	...	...
Kiribati	19.6	...	...	...	...	...	26.8	26.9	21.9	20.0	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	9.8	...	...	...	...	...	11.8	12.1	12.4	12.9	...	...
Solomon Islands	13.6	...	...	...	...	...	15.9	16.8	17.7	18.0	...	...
Timor-Leste	...	...	...	...	...	...	15.7	16.7	15.9	17.2	...	...
Tonga	11.3	...	...	...	...	...	7.4	7.3	7.3	7.1	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	21.6	...	...	...	...	...	23.4	24.6	25.6	24.1	...	...
<b>Developed Member Economies</b>												
Australia	4.7	5.0	5.3	5.4	5.4	5.5	5.7	5.6	5.6	5.7	5.7	5.7
Japan	7.5	7.1	7.1	7.2	7.2	7.4	7.3	7.5	7.6	7.8	8.1	8.0
New Zealand	5.0	5.0	5.1	5.3	5.4	5.8	6.0	6.3	6.3	6.4	6.2	6.1
<b>WORLD</b>	4.2	4.5	4.9	5.0	5.1	5.1	5.1	5.2	5.3	5.4	5.5	5.5

... = Data not available at cutoff date, GDP = gross domestic product, PPP = purchasing power parity.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: World Development Indicators Online (World Bank 2012).

**Table 6.2 Energy Production**  
(kilotons of oil equivalent)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	137	245	632	602	738	692	746	861	846	826	797	825
Azerbaijan	20641	14725	18962	19581	19752	19826	20053	27229	38127	52119	58634	64559
Georgia	2110	1200	1326	1265	1329	1377	1288	981	929	1075	1079	1258
Kazakhstan	90455	63470	77909	83322	90438	101034	113481	117365	126483	130789	142221	145814
Kyrgyz Republic	2502	1259	1443	1353	1204	1403	1475	1447	1488	1427	1190	1161
Pakistan	34178	41045	46919	48976	50058	55280	58829	61477	61906	64210	63262	64859
Tajikistan	2026	1329	1264	1288	1361	1466	1492	1546	1519	1574	1488	1502
Turkmenistan	74865	32836	45968	50390	52861	58551	57829	61137	59989	65817	68410	40904
Uzbekistan	38643	48655	54945	55506	56225	56289	57136	56396	58478	59791	62020	60694
<b>East Asia</b>												
China, People's Rep. of	886292	1066178	1063987	1093819	1171213	1317293	1493308	1622911	1728257	1824494	1989751	2084940
Hong Kong, China	43	47	50	50	50	50	51	51	51	52	52	52
Korea, Rep. of	22623	21148	34376	34879	34842	37941	38267	42935	43727	42604	44731	44313
Mongolia	2749	2256	1916	1903	2052	1981	2023	3421	3745	4476	5107	7690
Taipei, China	10748	10913	11476	10751	11608	11432	13087	13152	13389	14249	13727	13801
<b>South Asia</b>												
Bangladesh	10758	12777	15156	16178	16739	17549	18426	19344	21230	22132	23395	24838
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...
India	291816	335773	366405	374522	383620	396351	409452	422377	437873	452732	468291	502470
Maldives	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	5501	6138	7138	7338	7618	7794	7969	8152	8295	8463	8643	8821
Sri Lanka	4191	4022	4748	4563	4544	4655	4765	4920	5155	5076	5072	5087
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	15642	18241	19684	19852	20265	21197	20749	21060	22317	20747	21126	18939
Cambodia	...	2901	3203	3256	3315	3370	3422	3479	3536	3594	3608	3668
Indonesia	169076	216049	236256	241573	248022	254899	264845	279976	313673	318303	323803	351841
Lao PDR	1085	1244	1652	1692	1743	1722	1810	1843	1941	739	710	721
Malaysia	48763	64548	76137	77145	80498	83937	88456	91493	90248	90138	93118	89693
Myanmar	10654	10999	15405	15843	16461	18363	20554	23120	22951	23849	22992	22357
Philippines	17231	15823	19550	18371	20115	20597	20890	21404	21399	22145	22979	23474
Singapore	-	-	-	-	-	-	-	-	-	-	-	29
Thailand	26578	33194	44033	43209	45863	49190	51151	54961	56854	59967	64393	61705
Viet Nam	24711	34529	48106	50062	53165	54383	65234	69709	72543	73596	71400	76642
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	235	321	269	255	263	264	264	250	262	44	43	40
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	2	2	2	2	2	2	2	2	2	2	2
Papua New Guinea	4611	4897	3866	3281	2776	2640	2350	2894	3396	2636	2833	2749
Samoa	18	19	20	20	20	20	20	20	20	5	5	5
Solomon Islands	75	76	78	78	78	78	78	78	78	...	...	...
Timor-Leste	...	...	...	...	7242	7242	7291	7318	7408	7421	7447	7418
Tonga	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5	5	20	20	20	20	20	20	20	0	1	1
<b>Developed Member Economies</b>												
Australia	157523	186898	233553	253786	263493	263593	269289	280114	281480	298607	301041	310698
Japan	75201	98552	105824	104777	96928	84076	95093	100507	101421	90596	88692	93791
New Zealand	11459	12735	14118	14197	14641	13385	13032	12575	13066	14024	14989	15215

... = Data not available at cutoff date, - = Magnitude equals zero, 0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); for Papua New Guinea; and Taipei, China: Asia Pacific Energy Research Center; Fiji; the Lao PDR; Palau; Samoa; Solomon Islands; Timor-Leste; and Vanuatu: *Energy Statistics in Asia and the Pacific 1990–2006* (Asian Development Bank 2009) and *Energy Statistics Yearbook* (UNSD 2009).

## Energy

Table 6.3 **Energy Imports, Net**  
(% of energy use)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	98.2	85.0	68.5	69.9	60.5	64.9	64.2	65.6	66.8	71.0	73.4	68.3
Azerbaijan	21.3	-15.4	-65.8	-71.8	-72.4	-65.3	-58.6	-96.3	-182.1	-328.4	-339.6	-439.4
Georgia	83.0	67.8	53.8	50.8	47.8	49.1	53.7	65.5	69.4	67.8	64.1	60.5
Kazakhstan	-24.3	-22.1	-119.0	-141.8	-128.3	-135.3	-124.8	-131.3	-106.0	-97.9	-105.4	-121.5
Kyrgyz Republic	66.6	47.2	39.9	38.7	51.8	47.8	46.1	45.6	44.8	51.7	56.5	61.4
Pakistan	20.2	23.4	26.1	24.3	23.6	19.5	20.0	19.3	22.2	23.7	23.6	24.2
Tajikistan	61.8	40.3	41.2	39.3	36.1	32.4	36.5	34.2	37.5	39.5	40.3	35.2
Turkmenistan	-281.4	-136.3	-216.9	-233.2	-244.0	-241.0	-227.3	-230.3	-217.6	-200.2	-204.3	-108.9
Uzbekistan	16.7	-14.3	-8.3	-8.7	-5.7	-9.8	-14.5	-20.1	-19.7	-22.8	-22.8	-24.3
<b>East Asia</b>												
China, People's Rep. of	-2.7	-1.8	2.8	-0.2	0.9	2.1	4.8	4.3	6.8	7.1	6.0	7.6
Hong Kong, China	99.5	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
Korea, Rep. of	75.7	85.4	81.7	81.7	82.5	81.3	81.6	79.6	79.5	80.8	80.3	80.7
Mongolia	19.5	16.6	18.9	19.5	18.5	19.5	20.2	-33.6	-30.7	-47.1	-65.0	-137.5
Taipei, China	...	...	...	...	...	...	...	...	...	...	...	...
<b>South Asia</b>												
Bangladesh	15.5	19.6	18.5	20.0	19.4	19.1	18.3	19.0	16.4	16.5	16.3	16.1
Bhutan	...	...	...	...	...	...	...	...	...	...	...	...
India	7.9	12.6	19.9	19.4	19.7	19.0	21.1	21.5	22.5	24.1	24.4	25.7
Maldives	...	...	...	...	...	...	...	...	...	...	...	...
Nepal	5.0	8.5	12.0	12.4	10.0	10.5	9.8	10.7	9.0	8.9	10.0	11.4
Sri Lanka	24.0	32.4	43.0	43.3	44.6	46.4	45.8	45.3	43.3	45.2	43.5	45.2
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	-787.5	-688.9	-702.2	-770.8	-811.0	-721.9	-699.4	-729.4	-586.0	-524.8	-482.2	-506.4
Cambodia	...	14.0	19.5	21.8	22.8	24.1	26.0	26.9	28.3	29.6	30.5	29.2
Indonesia	-66.9	-60.1	-51.7	-51.0	-49.0	-52.8	-48.3	-54.4	-67.1	-69.0	-68.8	-74.2
Lao PDR	...	...	...	...	...	...	...	...	...	...	...	...
Malaysia	-121.8	-73.9	-61.1	-54.5	-58.4	-52.0	-62.9	-46.3	-41.2	-29.6	-27.5	-34.2
Myanmar	0.0	6.5	-23.2	-30.3	-29.7	-34.7	-41.3	-44.8	-48.4	-53.1	-47.0	-48.4
Philippines	40.4	53.4	51.6	52.6	48.8	47.7	46.6	45.4	44.9	41.9	42.0	39.6
Singapore	100.0	100.0	99.9	99.9	99.8	99.8	99.9	99.8	99.8	99.8	99.8	99.8
Thailand	36.6	46.4	39.2	43.1	43.5	43.9	46.0	42.8	42.1	41.3	39.4	40.3
Viet Nam	-1.7	-15.2	-30.3	-28.6	-26.5	-24.3	-31.3	-36.8	-38.4	-31.4	-20.7	-19.7
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>												
Australia	-82.7	-101.9	-116.0	-137.6	-136.2	-133.0	-136.8	-134.2	-130.1	-139.0	-132.6	-137.0
Japan	82.9	80.1	79.6	79.5	81.0	83.4	81.8	80.7	80.5	82.4	82.1	80.1
New Zealand	10.7	14.7	16.1	15.6	14.7	20.7	22.9	24.0	22.4	17.1	13.1	12.6

... = Data not available at cutoff date.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: World Development Indicators Online (World Bank 2012).

Table 6.4 **Energy Use**  
(kilotons of oil equivalent)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Developing Member Economies</b>												
<b>Central and West Asia</b>												
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	7697	1632	2003	1998	1868	1970	2083	2505	2546	2845	2997	2601
Azerbaijan	26236	12764	11435	11395	11459	11991	12645	13871	13515	12166	13339	11968
Georgia	12425	3731	2872	2571	2545	2706	2782	2841	3033	3344	3007	3189
Kazakhstan	72746	51978	35582	34459	39620	42936	50476	50739	61397	66099	69244	65835
Kyrgyz Republic	7486	2384	2402	2206	2496	2688	2738	2658	2694	2953	2736	3011
Pakistan	42827	53576	63525	64725	65503	68700	73556	76174	79547	84199	82776	85520
Tajikistan	5308	2225	2149	2122	2129	2170	2350	2350	2432	2602	2494	2318
Turkmenistan	19630	13898	14507	15121	15369	17172	17667	18511	18889	21924	22479	19584
Uzbekistan	46365	42572	50741	51055	53181	51282	49888	46951	48853	48701	50501	48809
<b>East Asia</b>												
China, People's Rep. of	862956	1047246	1094871	1091386	1181701	1345046	1567915	1696389	1853975	1963992	2117483	2257101
Hong Kong, China	8658	10650	13392	14145	13195	13608	12808	12664	13330	14338	14138	14939
Korea, Rep. of	93087	144756	188075	190962	198588	202637	208203	210102	213524	222146	226946	229178
Mongolia	3416	2704	2364	2363	2517	2460	2536	2560	2866	3043	3095	3237
Taipei, China	29302	37761	53558	57741	60583	60697	61995	62206	63321	67848	64332	63990
<b>South Asia</b>												
Bangladesh	12736	15897	18603	20216	20756	21702	22539	23878	25387	26492	27941	29599
Bhutan	56	413	1062	1076	1101	1104	180	204	211	244	221	251
India	316743	384285	457214	464504	477505	489496	518635	537909	565000	596557	619024	675830
Maldives	51	85	147	163	204	174	250	225	288	299	323	340
Nepal	5789	6712	8108	8375	8467	8707	8832	9132	9119	9291	9599	9960
Sri Lanka	5516	5949	8327	8050	8199	8682	8798	9001	9084	9262	8974	9281
<b>Southeast Asia</b>												
Brunei Darussalam <sup>a</sup>	1762	2312	2454	2280	2225	2579	2596	2539	3253	3320	3629	3123
Cambodia	...	3373	3978	4164	4296	4439	4623	4756	4934	5104	5193	5182
Indonesia	101328	134971	155692	160003	166499	166855	178594	181381	187736	188312	191803	201999
Lao PDR	1150	1322	1454	1543	1662	1674	1679	1773	1656	573	618	666
Malaysia	21988	37112	47271	49930	50834	55204	54304	62552	63897	69528	73024	66826
Myanmar	10656	11768	12500	12155	12692	13631	14547	15968	15463	15574	15639	15062
Philippines	28892	33982	40424	38778	39301	39385	39153	39178	38849	38142	39605	38842
Singapore	11456	18641	19246	21927	21088	15379	19417	18612	19268	15652	16705	18476
Thailand	41946	61913	72370	75931	81160	87729	94649	96017	98183	102207	106305	103316
Viet Nam	24298	29982	36923	38927	42023	43739	49677	50953	52411	56012	59149	64048
<b>The Pacific</b>												
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	286	242	289	377	314	559	666	578	559	524	380	305
Kiribati	7	0	0	5	5	5	8	8	10	11	18	18
Marshall Islands	...	...	...	...	...	...	29	29	30	32	33	33
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	33	34	33	35	35	35	35	35	46	47	47	48
Palau	73	26	27	40	40	42	42	43	69	71	71	71
Papua New Guinea	613	689	880	948	1008	1095	1101	1115	1129	1141	1144	1162
Samoa	43	9	49	51	51	52	56	57	57	58	58	59
Solomon Islands	53	69	108	114	114	116	58	58	59	64	63	64
Timor-Leste	...	...	...	...	46	46	58	58	59	61	63	61
Tonga	25	29	29	36	37	46	57	57	57	58	58	58
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	23	0	5	31	31	31	30	30	31	35	41	40
<b>Developed Member Economies</b>												
Australia	86226	92556	108111	106829	111541	113131	113719	119592	122325	124945	129401	131071
Japan	439315	496247	518946	510777	510376	506207	522465	520515	519778	515171	495549	471992
New Zealand	12825	14934	16820	16819	17163	16887	16901	16555	16847	16908	17257	17403

... = Data not available at cutoff date, 0 = Magnitude is less than half of unit employed.

a Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: World Development Indicators Online (World Bank 2012); for Papua New Guinea; and Taipei, China: Asia Pacific Energy Research Center; for Bhutan; Fiji; Kiribati; the Lao PDR; the Maldives; Nauru; Palau; Samoa; Solomon Islands; Timor-Leste; Tonga; and Vanuatu: *Energy Statistics in Asia and the Pacific 1990–2006* (Asian Development Bank 2009) and *Energy Statistics Yearbook* (UNSD 2009).



## Environment

**Table 6.5 Agriculture Land Use**  
(% of land area)

Regional Member	Agricultural Land			Arable Land			Permanent Cropland		
	1990	2000	2009	1990	2000	2009	1990	2000	2009
<b>Developing Member Economies</b>									
<b>Central and West Asia</b>									
Afghanistan	58.3	57.9	58.1	12.1	11.8	11.9	0.2	0.1	0.2
Armenia	41.1 (1992)	46.5	61.6	14.9 (1992)	15.8	16.1	2.1 (1992)	1.3	1.9
Azerbaijan	53.4 (1992)	57.4	57.6	20.5 (1992)	22.1	22.7	7.0 (1992)	5.0	4.8
Georgia	46.5 (1992)	43.2	36.1	11.4 (1992)	11.4	6.4	4.8 (1992)	3.9	1.7
Kazakhstan	82.0 (1992)	76.6	77.2	13.0 (1992)	8.0	8.7	0.1 (1992)	0.1	0.0
Kyrgyz Republic	52.6 (1992)	55.9	55.4	13.1 (1992)	12.7	12.0	0.4 (1992)	0.3	0.4
Pakistan	33.6	35.0	34.1	26.6	27.6	26.5	0.6	0.9	1.1
Tajikistan	32.1 (1992)	32.7	33.9	6.1 (1992)	5.6	5.3	0.9 (1992)	0.7	1.0
Turkmenistan	68.6 (1992)	68.9	69.4	2.9 (1992)	3.4	3.9	0.1 (1992)	0.1	0.1
Uzbekistan	65.2 (1992)	64.2	62.6	10.5 (1992)	10.5	10.1	0.9 (1992)	0.8	0.8
<b>East Asia</b>									
China, People's Rep. of	57.0	57.1	56.2	13.3	13.0	11.8	0.8	1.2	1.5
Hong Kong, China	...	...	...	...	...	...	...	...	...
Korea, Rep. of	22.1	20.0	19.1	19.8	17.4	16.4	1.6	2.0	2.1
Mongolia	80.9	84.0	74.5	0.9	0.8	0.6	0.0	0.0	0.0
Taipei, China <sup>a</sup>	24.6	23.5	22.5	...	...	...	...	...	...
<b>South Asia</b>									
Bangladesh	79.8	72.2	70.3	72.6	64.4	58.1	2.5	3.2	7.5
Bhutan	9.7	13.9	13.2	2.8	3.2	2.0	0.5	0.6	0.7
India	60.9	61.4	60.5	54.8	54.7	53.1	2.2	3.1	3.9
Maldives	30.0	33.3	26.7	13.3	13.3	13.3	13.3	16.7	10.0
Nepal	29.0	29.5	29.6	16.0	16.4	16.7	0.5	0.7	0.8
Sri Lanka	37.3	37.5	41.6	14.4	14.6	19.1	15.9	15.9	15.5
<b>Southeast Asia</b>									
Brunei Darussalam <sup>b</sup>	2.1	1.9	2.2	0.4	0.4	0.6	0.8	0.8	0.9
Cambodia	25.2	27.0	31.5	20.9	21.0	22.1	0.6	0.8	0.9
Indonesia	24.9	25.2	29.6	11.2	11.3	13.0	6.5	7.7	10.5
Lao PDR	7.2	8.0	10.2	3.5	3.8	5.9	0.3	0.4	0.5
Malaysia	22.0	24.0	24.0	5.2	5.5	5.5	16.0	17.6	17.6
Myanmar	16.0	16.5	19.0	14.6	15.2	16.9	0.8	0.9	1.7
Philippines	37.4	37.5	40.1	18.4	16.9	18.1	14.8	15.6	16.9
Singapore	3.0	1.8	1.0	1.5	1.5	0.7	1.5	0.3	0.3
Thailand	41.9	38.8	38.7	34.2	30.6	29.9	6.1	6.6	7.2
Viet Nam	20.7	28.2	33.1	16.4	19.9	20.3	3.2	6.2	10.8
<b>The Pacific</b>									
Cook Islands	25.0	25.0	12.5	8.3	12.5	8.3	16.7	12.5	4.2
Fiji	22.4	23.4	22.9	8.8	9.3	8.8	4.4	4.5	4.5
Kiribati	48.1	42.0	42.0	2.5	2.5	2.5	45.7	39.5	39.5
Marshall Islands	72.2 (1995)	72.2	72.2	5.6 (1995)	5.6	11.1	44.4 (1995)	44.4	44.4
Micronesia, Fed. States of	32.1 (1995)	32.1	31.4	3.6 (1995)	3.6	2.9	24.3 (1995)	24.3	24.3
Nauru	20.0	20.0	20.0	...	...	...	20.0	20.0	20.0
Palau	10.9 (1995)	10.9	10.9	2.2 (1995)	2.2	2.2	4.3 (1995)	4.3	4.3
Papua New Guinea	1.9	2.2	2.5	0.4	0.5	0.6	1.2	1.4	1.5
Samoa	23.7	22.3	23.7	10.6	8.8	8.8	12.4	12.4	13.8
Solomon Islands	2.4	2.7	3.0	0.4	0.5	0.6	1.9	2.0	2.1
Timor-Leste	21.4	22.7	25.2	7.4	8.1	11.1	3.9	4.5	4.0
Tonga	44.4	41.7	43.1	22.2	20.8	22.2	16.7	15.3	15.3
Tuvalu	66.7	66.7	60.0	...	...	...	66.7	66.7	60.0
Vanuatu	12.5	14.4	15.3	1.6	1.6	1.6	8.0	9.3	10.3
<b>Developed Member Economies</b>									
Australia	60.5	59.3	53.2	6.2	6.2	6.1	0.0	0.0	0.0
Japan	15.6	14.4	12.6	13.1	12.3	11.8	1.3	1.0	0.9
New Zealand	61.5	58.5	43.6	10.0	5.7	1.8	0.2	0.2	0.3

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed.

a Data do not include the counties of Kinmen and Lienchiang.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: FAOSTAT Database Access website (<http://www.faostat.fao.org>); for Taipei, China: *Statistical Yearbook 2010* (Directorate General of Budget, Accounting and Statistics 2012).

Table 6.6 Deforestation and Pollution

Regional Member	Deforestation Rate <sup>a</sup> (average % change)		Nitrous Oxide Emissions (thousand metric tons CO <sub>2</sub> equivalent)			Methane Emissions (thousand metric tons CO <sub>2</sub> equivalent)		
	1990–2000	2000–2010	1995	2000	2005	1995	2000	2005
<b>Developing Member Economies</b>								
<b>Central and West Asia</b>								
Afghanistan	0.00	0.00	...	...	...	...	...	...
Armenia	1.31	1.48	466	457	580	2428	2565	2962
Azerbaijan	0.00	0.00	1832	2084	2633	9111	34497	36607
Georgia	0.04	0.09	1712	1989	2019	4112	4133	4410
Kazakhstan	0.17	0.17	20257	15783	17594	41703	34558	47119
Kyrgyz Republic	-0.26	-1.07	1529	1554	1510	3693	3483	3591
Pakistan	1.76	2.24	21241	24640	26838	101536	116519	137401
Tajikistan	-0.05	0.00	1349	1089	1378	3596	3304	3898
Turkmenistan	0.00	0.00	2373	2873	4276	16167	20054	27984
Uzbekistan	-0.54	-0.20	6960	9107	10003	33524	35703	39602
<b>East Asia</b>								
China, People's Rep. of	-1.20	-1.57	380630	392195	467213	1093620	1059439	1333098
Hong Kong, China	...	...	492	492	422	2102	2694	2820
Korea, Rep. of	0.13	0.11	15264	18718	13548	30080	30924	32069
Mongolia	0.67	0.72	5264	5014	3489	8876	9042	6067
Taipei, China	...	...	...	...	...	...	...	...
<b>South Asia</b>								
Bangladesh	0.18	0.18	18233	19486	21386	85076	88870	92414
Bhutan	...	...	...	...	...	...	...	...
India	-0.22	-0.46	187400	201964	212927	544388	564239	583978
Maldives	...	...	...	...	...	...	...	...
Nepal	2.09	0.70	3949	4227	4516	20644	21083	22142
Sri Lanka	1.20	1.12	1938	2034	2056	11578	9515	10210
<b>Southeast Asia</b>								
Brunei Darussalam <sup>b</sup>	...	...	570	396	609	5991	4995	5771
Cambodia	1.14	1.33	4331	3295	5794	15740	14811	20215
Indonesia	1.75	0.51	89568	90387	123275	182547	177167	208944
Lao PDR	0.46	0.48	...	...	...	...	...	...
Malaysia	0.36	0.54	14397	13019	15087	37011	40141	46501
Myanmar	1.17	0.93	44219	30075	30932	89507	67110	77211
Philippines	-0.80	-0.74	10614	12472	12950	43379	48501	51889
Singapore	0.00	0.00	1390	5995	1068	1510	1653	2237
Thailand	0.28	0.02	22506	19913	22304	80570	79199	83257
Viet Nam	-2.28	-1.64	15415	19736	23030	65683	72238	82978
<b>The Pacific</b>								
Cook Islands	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	...
Marshall Islands	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...
Papua New Guinea	0.45	0.48	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...
Solomon Islands	...	...	...	...	...	...	...	...
Timor-Leste	1.22	1.40	...	...	...	...	...	...
Tonga	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	...
<b>Developed Member Economies</b>								
Australia	-0.03	0.37	57651	75356	62966	113113	130754	126488
Japan	0.03	-0.04	37303	31552	29785	60264	47775	42771
New Zealand	-0.69	0.00	11181	11460	12930	27166	26689	27635

continued

## Environment

Table 6.6 **Deforestation and Pollution** (continued)

Regional Member	Consumption of Ozone-Depleting CFCs (ODP metric tons)			Organic Water Pollutant (BOD) Emissions (kilograms per day per worker)		
	1990	2000	2010	1990	2000	Latest Year
<b>Developing Member Economies</b>						
<b>Central and West Asia</b>						
Afghanistan	380.0 (1995)	380.0 (1997)	–	...	0.179 (2001)	0.206 (2002)
Armenia	– (1991)	25.0	–	...	...	...
Azerbaijan	456.5 (1996)	87.8	–	0.153 (1995)	0.153	0.181 (2007)
Georgia	53.2 (1994)	21.5	–	...	...	...
Kazakhstan	1214.3	523.9	–	0.233 (1998)	0.237	0.236 (2007)
Kyrgyz Republic	117.6 (1991)	81.5	–	0.136 (1992)	0.189	0.202 (2007)
Pakistan	751.0	453.0	–	...	...	0.165 (2007)
Tajikistan	91.3 (1991)	28.0	–	0.167	0.223	0.239 (2007)
Turkmenistan	140.8	21.0	–	...	...	...
Uzbekistan	585.3 (1993)	41.7	–	...	...	...
<b>East Asia</b>						
China, People's Rep. of	41829.0	39123.6	968.6	...	0.138 (2003)	0.130 (2007)
Hong Kong, China	...	...	...	...	...	...
Korea, Rep. of	19605.0 (1992)	7395.4	–	0.124	0.120	0.114 (2006)
Mongolia	7.2 (1995)	11.2	–	...	0.203 (2003)	0.215 (2007)
Taipei, China	...	...	...	...	...	...
<b>South Asia</b>						
Bangladesh	195.1	805.0	48.0	0.146 (1995)	0.144 (1998)	...
Bhutan	– (1991)	–	–	...	...	...
India	–	5614.3	316.1	...	...	...
Maldives	3.5	4.6	–	...	...	...
Nepal	20.0 (1991)	94.0	–	...	0.142 (1996)	0.157 (2002)
Sri Lanka	209.5	220.3	–	...	...	0.195 (2006)
<b>Southeast Asia</b>						
Brunei Darussalam <sup>b</sup>	58.6 (1992)	46.6	–	...	...	...
Cambodia	94.2 (1995)	94.2	–	0.172 (1993)	0.142 (1995)	...
Indonesia	5249.0 (1992)	5411.1	–	0.184 (1998)	0.179	0.187 (2006)
Lao PDR	3.6 (1992)	44.6	–	...	0.136 (1999)	...
Malaysia	3384.2	1979.8	–	...	0.118	0.123 (2006)
Myanmar	– (1991)	26.3	–	...	...	...
Philippines	2981.2	2905.2	–	0.167 (1996)	0.156 (2001)	0.146 (2005)
Singapore	3166.6	21.7	–	0.092 (1991)	0.095	0.094 (2007)
Thailand	6660.2	3568.3	–	0.153 (1996)	0.155	0.152 (2006)
Viet Nam	303.4 (1991)	220.0	–	0.158 (1998)	0.169	0.144 (2007)
<b>The Pacific</b>						
Cook Islands	– (1991)	–	–	...	...	...
Fiji	37.8	–	–	...	0.232 (2002)	0.230 (2004)
Kiribati	– (1991)	–	–	...	...	...
Marshall Islands	1.2	0.5	–	...	...	...
Micronesia, Fed. States of	– (1991)	1.1	–	...	...	...
Nauru	0.6 (1995)	0.4	–	...	...	...
Palau	1.7 (1995)	0.6	–	...	...	...
Papua New Guinea	28.3 (1991)	47.9	–	...	...	...
Samoa	4.0 (1991)	0.6	–	...	...	...
Solomon Islands	1.6	0.3	–	...	...	...
Timor-Leste	36.8 (1995)	21.4	–	...	...	...
Tonga	1.8 (1995)	0.5	–	0.224 (1991)	0.295	0.339 (2004)
Tuvalu	0.3 (1993)	–	–	...	...	...
Vanuatu	0.5 (1995)	0.1	–	...	...	...
<b>Developed Member Economies</b>						
Australia	7416.4	6.5	–23.9	...	...	...
Japan	97723.2	–24.2	–	0.141 (1994)	0.147	0.149 (2005)
New Zealand	558.4	–2.6	–	0.243	0.233	0.230 (2007)

BOD = biochemical oxygen demand, CFC = chlorofluorocarbons, CO<sub>2</sub> = carbon dioxide, ODP = ozone-depleting potential, ... = Data not available at cutoff date, – = Magnitude equals zero, 0.00 = Magnitude is less than half of unit employed.

- a A negative value indicates that deforestation rate is decreasing (i.e., reforestation).  
b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Sources: FAOSTAT Database Access website (FAO 2012); World Development Indicators Online (World Bank 2012); United Nations Millennium Indicators Database Online (UNSD 2012).

## Government and Governance

### Snapshots

- Fiscal balances in most Asian and Pacific economies continued to improve.
- The tax-to-GDP ratio improved in 2011 over 2010. Of the region's 31 developing member economies reporting in 2011, 24 had tax revenue shares lower than developed members with available data.
- In 2011, 8 of the 34 reporting economies registered increases in government expenditure as percentage of GDP, ranging from 1.0 to 5.9 percentage points.
- Starting a business is becoming cheaper and faster in much of the region. From an average of 42 days to start a business in 2006 to only 28 days in 2011.
- Combating corruption remains a problem for many economies in the region. Only 9 of 41 economies surveyed had a corruption perception index that indicates minimal to average perceived corruption.

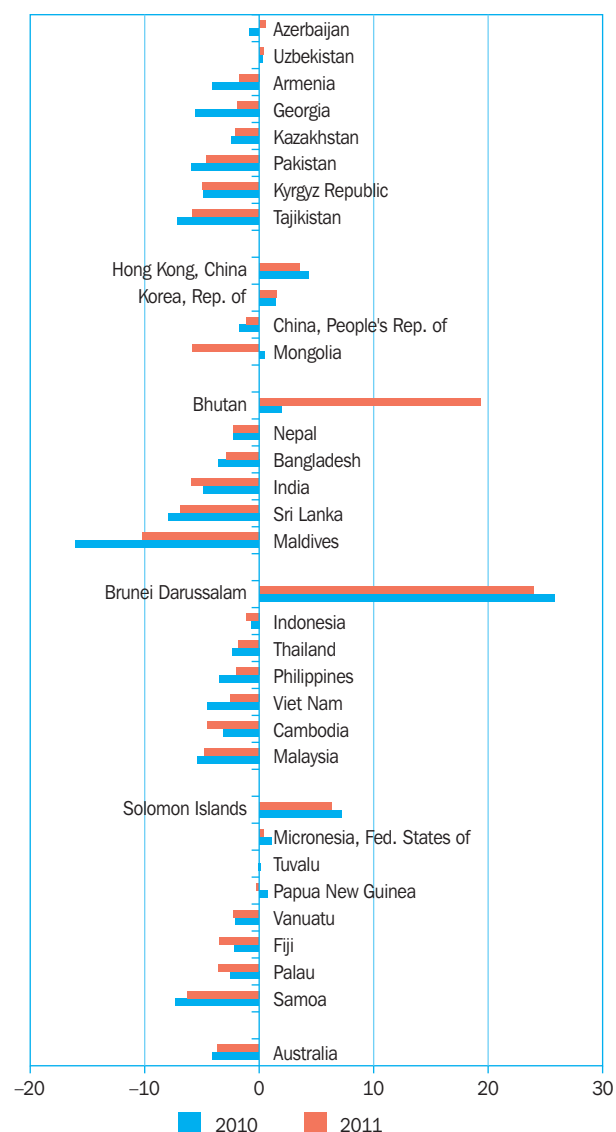
### Key Trends

**Fiscal balances, the difference between total revenue and total expenditure of the government, continued to improve for most economies in the region** (Figure 7.1 and Table 7.1). Most had either lower fiscal deficits or higher surpluses in 2011 than in 2010. Bhutan reported the biggest improvement in its fiscal balance, with its surpluses growing remarkably from 2.0% to 19.3%. However, Brunei Darussalam reported the biggest surplus in 2011, which could be the result of the moderate decrease in government spending in 2011 (ADB 2012). Most economies in the Pacific were still experiencing larger deficits or lower surpluses in 2011 than in 2010. Azerbaijan turned its deficit in 2010 to surplus in 2011. However, Mongolia's surplus in 2010 had turned into a deficit in 2011. In 2011, Mongolia's economy was boosted by increased government spending on infrastructure, particularly on mining-related activity.

**Tax collection in most economies was higher in 2011 than in 2010.** More than 70% of the economies presented in Figure 7.2 and Table 7.2 showed higher tax-to-GDP ratios in 2011 than in 2010. Solomon Islands reported the biggest increase in the tax-to-GDP ratio, from 29.6% in 2010 to 36.3% in 2011. The country also had the largest tax-to-GDP ratio in the region. Brunei Darussalam had the region's lowest tax-to-GDP ratio in 2011, at only 1.6%. Brunei Darussalam's tax revenue dropped significantly in 2010 and 2011, compared with a range of 22%–36% during the last 10 years. The drop could be due to the decline in the income tax rate, which the government plans to reduce further to 20%, from 30% in 2006 (ADB 2012).

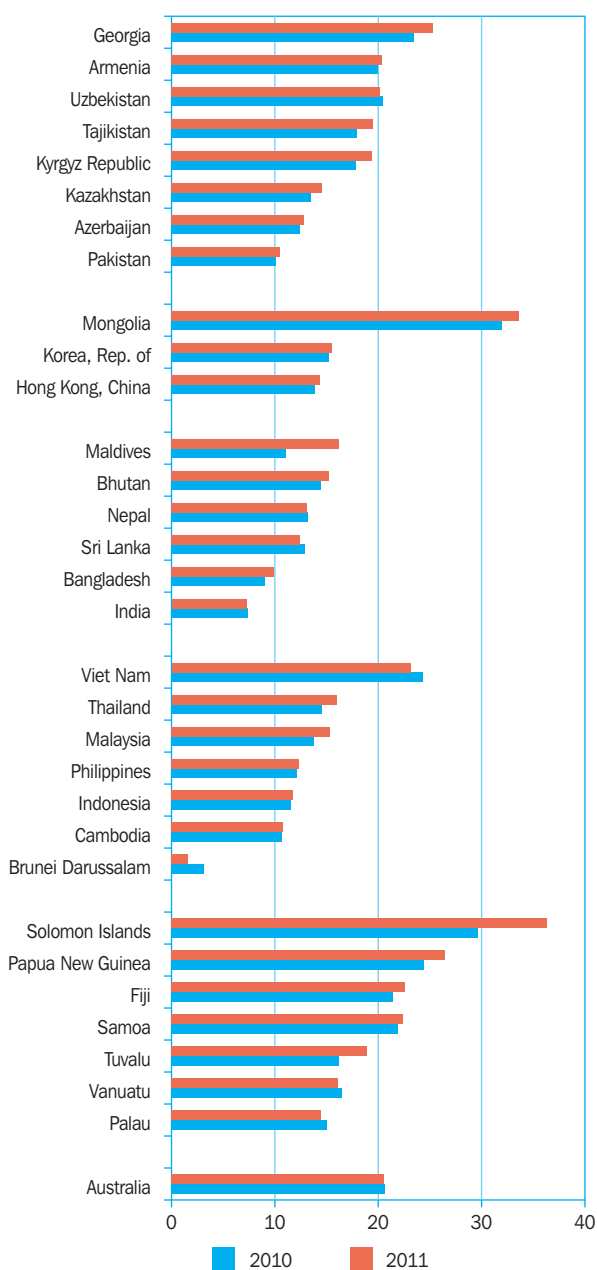
**In 2011, governments in the region moderately increased their spending as a percentage of GDP.** Solomon Islands and Mongolia share the top spot in having the

Figure 7.1 Fiscal Balance as a Percentage of GDP, 2010 and 2011



GDP = gross domestic product.  
Source: Table 7.1.

Figure 7.2 Tax Revenue as a Percentage of GDP, 2010 and 2011



GDP = gross domestic product.

Source: Table 7.2.

biggest increase in total expenditure. Both economies' share of government expenditure in GDP increased by 5.9 percentage points in 2011 from 2010. Also, in both economies, government expenditure is about 40% of GDP.

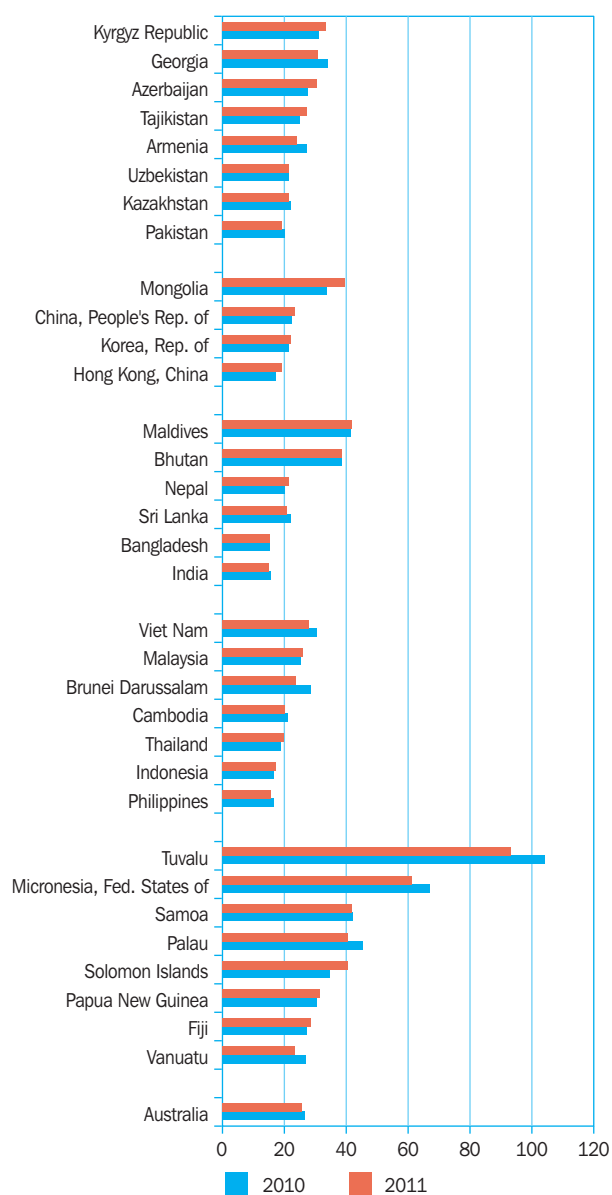
The economy with the biggest government expenditure share of GDP in the most recent years is Tuvalu. Tuvalu's government expenditure exceeded its GDP in 2010. Tuvalu also had the biggest drop in government

expenditure's share of GDP in 2011 compared to 2010, as the government tried to cut its spending (ADB 2012).

The government expenditure share of GDP is high in most Pacific economies, ranging from 23% to 93% in 2011. East Asian economies all reported moderate increases in government spending in 2011 (Figure 7.3).

The two economies with the smallest share of government expenditure are in South Asia. In 2011, the ratio of government spending to GDP was only 15.2% in Bangladesh and 14.9% in India.

Figure 7.3 Total Government Expenditure as a Percentage of GDP, 2010 and 2011

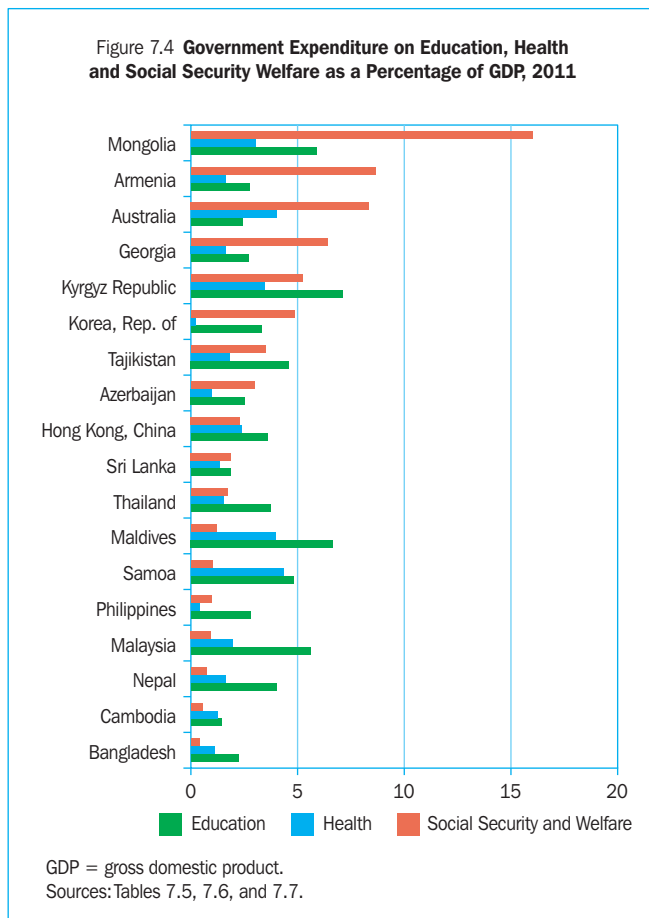


GDP = gross domestic product.

Source: Table 7.4.

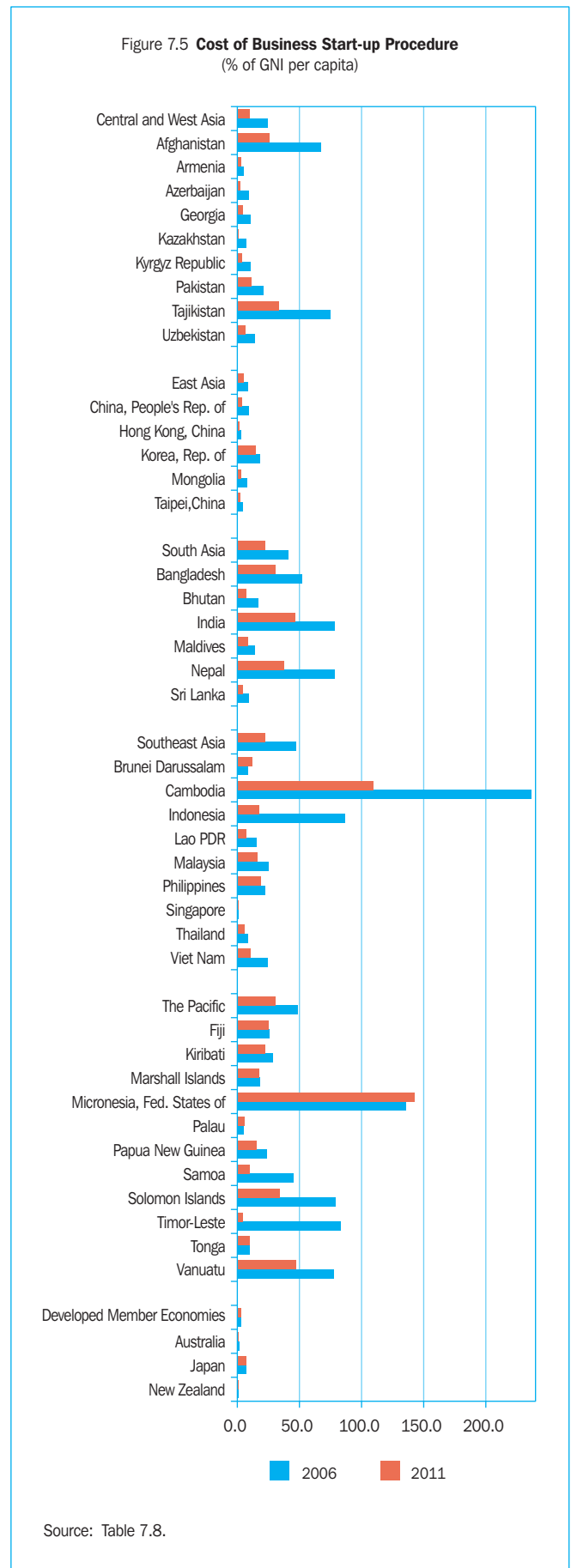
Among education, health, and social security, the largest share of government spending in the region generally goes to education or social security (Figure 7.4 and Tables 7.5–7.7). About half of the reporting economies provide the smallest share of their spending for health.

Mongolia spent the most on social security welfare in 2011 (16% of its GDP), as it increased spending on social transfers, wages, and cash transfers. The Kyrgyz Republic, at 7.1%, had the highest spending share for education. A majority of the economies in Figure 7.4 spent more on education than on health and social welfare, including economies with low per capita income.



**Starting a business is becoming cheaper and faster.** Table 7.8 shows that on average, global economies took more than 100% of per capita GNI to start a business in 2006; however, the cost in Asia and the Pacific region was only about one-third, or 35% of its per capita GNI. By 2011, the cost in Asia and the Pacific had gone down to 19% of its per capita GNI. The decline reflects the strong economic growth in the region resulting in higher per capita income.

Figure 7.5 presents the cost required to start a business expressed as a percentage of per capita GNI in 2006 and 2011. Brunei Darussalam, the Federated States



of Micronesia, New Zealand, Palau, and Tonga, showed a slight increase in 2011, although the costs of business start-ups in these economies are already low, except in the Federated States of Micronesia. The other 38 economies in the figure, including the five most populous ones, showed varying degrees of reduction. Indonesia had the most dramatic decline, from 87% to 18% of its per capita GNI. Other significant declines occurred in India (from 78% to 47%), Bangladesh (from 52% to 31%), Pakistan (from 21% to 11%), and the People's Republic of China (PRC) (from 9% to 4%).

Figure 7.6 presents the number of days required to start a business in 2006 and 2011. Eight economies were able to cut the time required by as many as 30–56 days—Tajikistan (56 days); Timor-Leste (54); Indonesia (52); Azerbaijan (43); Taipei, China (38); Malaysia (31); Bangladesh (31); and the Lao PDR (30).

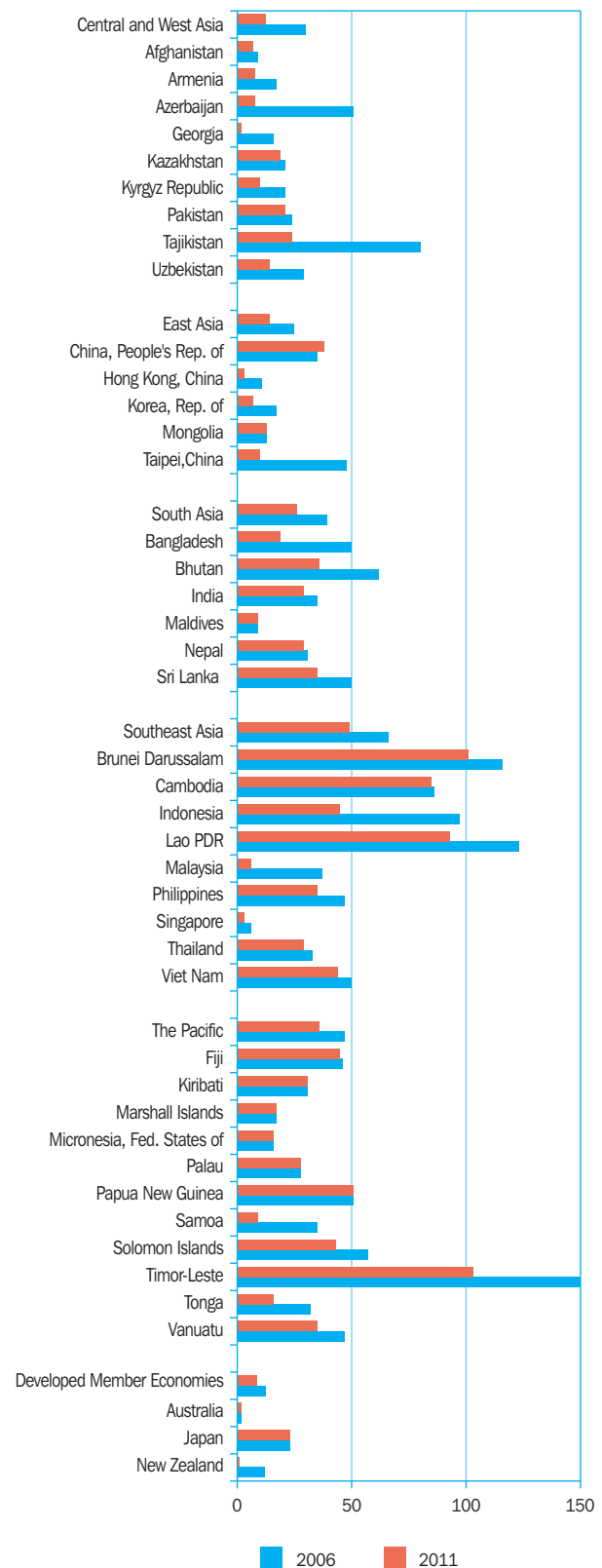
In the nine economies with no change in the number of days, some already had short intervals for business start-ups, especially Australia (2 days) and the Maldives (9), but also Mongolia (13), the Federated States of Micronesia (16), the Republic of Marshall Islands (17), Japan (23), Palau (28), Kiribati (31) and Papua New Guinea (PNG) (51). Only the PRC showed a slight increase from 2006 to 2011 in the time required to start a business (3 days).

Starting business in Timor-Leste and Brunei Darussalam took at least 100 days in 2011, but their costs for starting a business, as a percentage of per capita GNI are low.

Figure 7.7 shows the days and costs to start a business, the latter expressed as a percentage of per capita GNI, in 2011. It is assumed that the shorter the time and the lower the cost, the more attractive it is to start a business for an entrepreneur. The graph shows that an investor can get a local limited liability company started at a cost that is less than 1% of the per capita GNI in less than 4 days on average in Australia, New Zealand, and Singapore. In the PRC, it will take 38 days at 4% of PRC's per capita GNI; while in Cambodia, starting can take 85 days at a cost of 110% of Cambodia's per capita GNI.

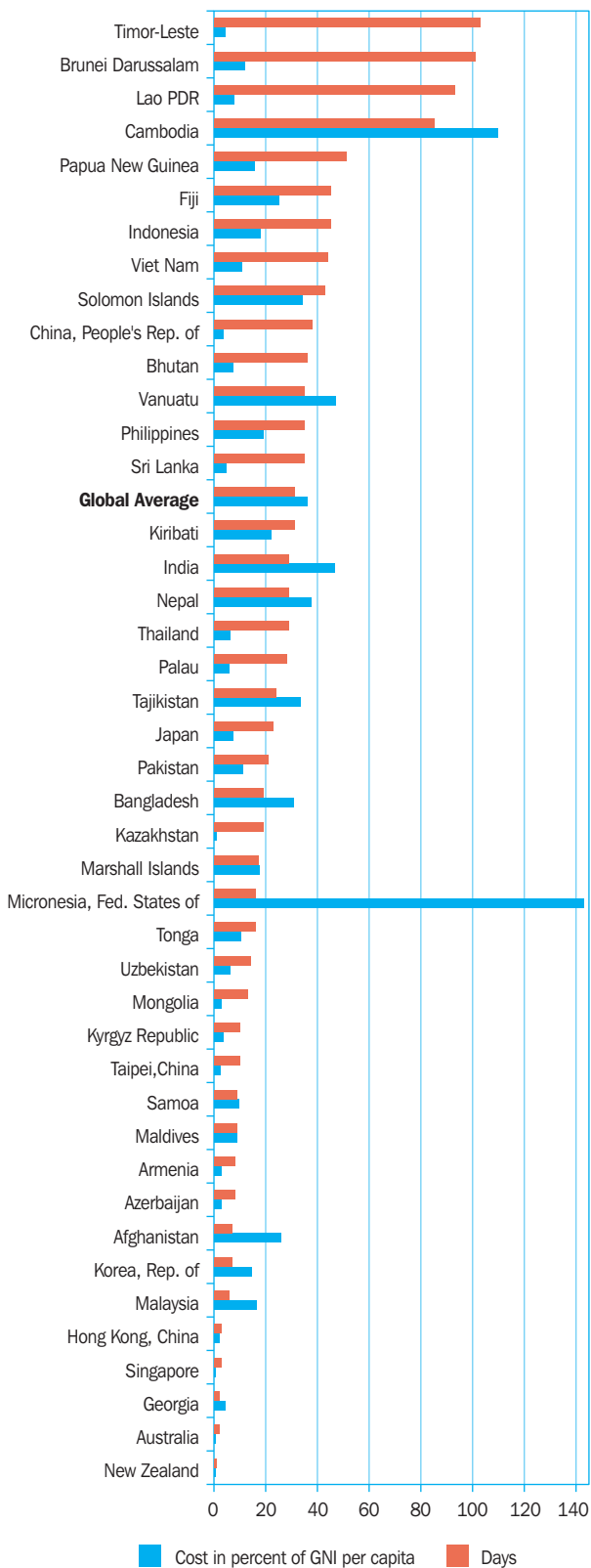
The Doing Business 2012 Topic Chapter identifies three good practices from around the world to facilitate starting a business: putting procedures online, as was done by Hong Kong, China and Singapore; having a one-stop shop, as in Georgia, the Republic of Korea, and Viet Nam; and having no minimum capital requirement (World Bank and IFC 2012).

Figure 7.6 Days Required to Start Up Business, 2006 and 2011



Source: Table 7.8.

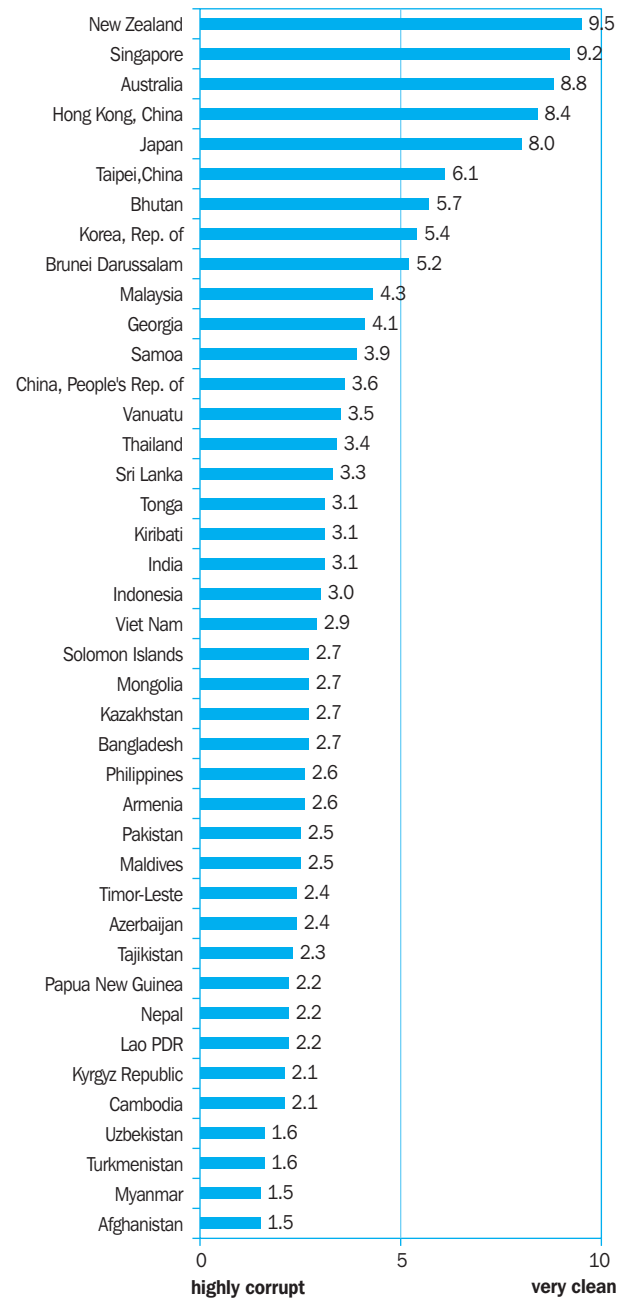
Figure 7.7 Time and Cost Required to Start a Business, 2011



GNI = gross national income.  
Source: Table 7.8.

**Combating corruption remains a problem.** Figure 7.8 shows that only 9 of 41 Asia and Pacific economies scored five or higher on a scale of 0 (highly corrupt) to 10 (very clean) in the 2011 Corruption Perceptions Index (CPI). The CPI, which is compiled by Transparency International, is a composite index based on the perceived level of corruption in the public sector. The CPI scores of the most populous economies all fell below five and ranked, among 183 economies in 2011, as follows: the PRC (75), India (95), Indonesia (100), Bangladesh (120), and Pakistan (134).

Figure 7.8 Corruption Perceptions Scores, 2011



Source: Table 7.9.



## Data Issues and Comparability

Data on government expenditures and revenue are taken from country sources. The coverage of the budget data is not standard throughout the region. Data provided by many economies refer only to the central government, but cover provincial and local governments in other economies. Most economies try to follow the International Monetary Fund's Government Finance Statistics guidelines; some economies are still using the 1986 version while others have switched to the 2001 guidelines. Most economies record their transactions on a cash basis; a few, on accrual.

The statistics on the time and cost for registering new businesses and on perceived corruption are all taken from nonofficial sources. Common procedures are used in all economies and the researchers producing these data have refined their procedures over several successive surveys. However, because of the subjective nature of many of the data, they can only be used to give a broad idea of trends, levels, and rankings.

## References

- Asian Development Bank (ADB). 2012. Asian Development Outlook 2012: Economic Trends and Prospects in Developing Asia. Mandaluyong City: ADB.
- Transparency International. Corruption Perceptions Index 2011. (<http://cpi.transparency.org/cpi2011/>), accessed July 2012.
- World Bank and International Finance Corporation (IFC). Doing Business 2012: Starting a Business. (<http://www.doingbusiness.org/methodology/starting-a-business#cost>), accessed July 2012.

Table 7.1 **Fiscal Balance<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	-1.2	-4.6	-5.3	-4.5	-7.8	-8.1	4.4	0.1	0.4	...
Armenia	...	-5.9	-4.9	-4.3	-2.6	-1.3	-1.7	-1.9	-1.5	-0.1	-6.8	-4.1	-1.7	...
Azerbaijan	...	-5.2	-1.0	-0.4	-0.4	-0.2	0.3	-0.7	0.4	-0.3	0.0	-0.5	-0.9	0.6
Georgia	...	...	-1.3	-1.2	-1.6	-1.5	0.5	1.2	1.9	0.4	-2.9	-6.9	-5.6	-1.9
Kazakhstan	...	-4.0	-0.1	-0.4	-0.3	-0.9	-0.3	0.6	0.8	-1.7	-2.1	-2.9	-2.4	-2.1
Kyrgyz Republic	-8.1	-11.5	-2.2	0.4	-1.0	-0.8	-0.5	0.2	-0.2	0.1	0.8	-1.5	-4.9	-5.0
Pakistan	-6.5	-5.6	-5.4	-4.3	-4.3	-3.7	-2.3	-3.3	-4.3	-4.4	-7.3	-5.1	-5.9	-4.6
Tajikistan	...	-7.4	-0.6	0.1	0.7	1.1	0.2	0.2	0.5	-8.1	-7.6	-7.3	-7.1	-5.8
Turkmenistan	...	0.4	-0.3	0.6	0.2	-1.3	1.4	0.8	5.3	3.9	11.3	7.8	1.8	...
Uzbekistan	...	-2.9	-1.0	0.2	-0.9	-1.3	0.0	0.1	0.5	1.1	1.4	0.2	0.3	0.4
<b>East Asia</b>														
China, People's Rep. of	-2.8	...	-2.8	-2.5	-2.6	-2.2	-1.3	-1.2	-0.8	0.6	-0.4	-2.3	-1.7	-1.1
Hong Kong, China	0.7	-0.3	-0.6	-4.9	-4.8	-3.2	-0.3	1.0	4.0	7.7	0.2	1.8	4.3	3.5
Korea, Rep. of	-0.6	0.3	1.1	1.1	3.1	1.0	0.6	0.4	0.4	3.5	1.2	-1.7	1.4	1.5
Mongolia	-11.0	-1.5	-7.7	-4.5	-5.8	-3.7	-1.8	2.6	3.1	2.7	-4.5	-5.2	0.5	-5.8
Taipei, China	1.8	-1.0	-4.5	-6.3	-2.8	-2.3	-2.5	-0.3	-0.2	-0.2	-0.8	-3.6	-2.7	...
<b>South Asia</b>														
Bangladesh	-5.7	-2.2	-4.5	-4.1	-3.7	-3.4	-3.4	-3.7	-3.3	-3.2	-5.3	-1.6	-3.6	-2.9
Bhutan	-7.4	0.1	-3.9	-10.6	-4.6	-9.8	1.9	-6.7	-0.8	0.6	0.7	1.8	2.0	19.3*
India	-6.6	-4.2	-5.7	-6.2	-5.9	-4.5	-3.9	-4.0	-3.3	-2.5	-6.0	-6.5	-4.9	-5.9
Maldives	...	-6.4	-4.4	-3.7	-3.8	-2.5	-1.1	-8.2	-4.8	-3.2	-11.2	-21.0	-16.1	-10.2
Nepal	-7.6	-4.5	-4.3	-5.5	-5.0	-1.4	-0.9	-0.8	-1.6	-1.8	-2.1	-3.2	-2.3	-2.3
Sri Lanka	-7.9	-8.8	-9.3	-10.2	-8.2	-7.3	-7.5	-7.0	-7.0	-6.9	-7.0	-9.9	-8.0	-6.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	-0.3	15.1	10.9	0.4	-9.9	-1.5	11.3	21.1	21.5	21.9	27.9	6.2	25.8	24.0
Cambodia	-4.5	-7.2	-2.1	-3.1	-3.2	-3.4	-1.6	-0.7	-0.2	-0.5	-0.1	-6.3	-3.1	-4.5
Indonesia	-0.8	3.0	-1.1	-2.5	-1.5	-1.7	-1.0	-0.5	-0.9	-1.3	-0.1	-1.6	-0.7	-1.2
Lao PDR	-9.7	-12.9	-4.6	-4.5	-3.4	-5.7	-2.6	-4.5	-3.1	-2.6	-2.2	-3.3	-2.2	...
Malaysia	-2.9	0.8	-5.5	-5.2	-5.3	-5.0	-4.1	-3.4	-3.2	-3.1	-4.6	-6.7	-5.4	-4.8
Myanmar	-2.8	-3.2	0.7	...	...	...	...	...	-4.3	-3.8	-2.3	-4.6	-4.5	...
Philippines	-3.5	0.6	-3.7	-3.8	-5.0	-4.4	-3.7	-2.6	-1.0	-0.2	-0.9	-3.7	-3.5	-2.0
Singapore	10.2	14.0	9.9	5.0	4.7	3.0	3.9	6.3	6.1	11.1	7.9	1.6	7.7	...
Thailand	4.6	2.6	-2.8	-2.6	-7.6	0.1	-0.4	0.1	-0.2	-1.3	-0.6	-3.9	-2.4	-1.8
Viet Nam <sup>c</sup>	-7.2	-1.3	-4.3	-3.5	-2.3	-2.2	0.2	-1.1	1.3	-1.0	0.7	-3.9	-4.5	-2.5
<b>The Pacific</b>														
Cook Islands	...	-2.8	-1.5	1.2	-3.8	-0.7	-0.9	2.1	1.6	3.4	3.3	-0.7	3.3	...
Fiji	-1.8	-0.3	-3.1	-7.7	-5.6	-5.9	-3.1	-3.3	-2.9	-2.1	0.4	-4.1	-2.1	-3.5
Kiribati	30.9	15.9	41.8	32.0	3.9	9.6	13.0	7.4	13.5	33.7	17.9	12.9	12.9	...
Marshall Islands	1.9	-27.2	8.1	8.3	5.4	10.9	-1.4	-3.4	1.4	0.2	3.7	1.4	4.6	...
Micronesia, Fed. States of	11.1	-0.4	-3.5	-5.5	7.2	5.9	-15.0	-4.9	-5.1	-2.5	-1.7	1.6	1.1	0.4
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	-12.2	-16.1	-21.7	-1.1	-6.9	0.4	-8.0	-1.9	-5.4	-10.4	-2.6	-3.5
Papua New Guinea	-3.3	-0.5	-2.0	-3.4	-3.8	-0.9	1.7	0.1	3.2	2.4	-2.2	-0.2	0.7	-0.2
Samoa	-3.7	-7.0	-0.7	-2.2	-2.0	-0.6	-0.8	0.3	-0.5	0.8	-1.5	-4.2	-7.3	-6.3
Solomon Islands	-5.3	-4.6	-0.6	-7.4	-20.2	-5.8	4.9	-0.9	2.6	-0.5	-4.0	0.1	7.2	6.3
Timor-Leste	...	...	...	...	...	...	11.4	4.0	-0.2	-0.7	-0.6	-0.2	3.6	...
Tonga	0.7	1.0	-0.3	-0.1	2.6	1.3	4.6	3.0	-0.7	3.9	3.6	0.8	-4.9	...
Tuvalu	...	...	-2.0	-44.3	31.7	-33.3	-14.6	-7.7	18.6	-14.0	-2.8	0.0	-0.1	-
Vanuatu	-8.2	-2.7	-6.1	-3.5	-3.5	-1.4	0.9	2.8	0.9	-0.3	2.1	1.0	-2.1	-2.3
<b>Developed Member Economies</b>														
Australia	...	-2.9	1.8	0.9	-0.5	0.8	0.8	1.3	1.7	1.6	1.8	-2.3	-4.1	-3.7
Japan	-0.5	-4.0	-6.3	-5.7	-6.5	-6.5	-5.1	-4.1	-0.9	-2.4	-2.9	-7.6	-6.7	...
New Zealand	-4.5	2.9	2.0	1.7	3.7	3.8	4.2	4.9	5.6	4.8	1.0	-2.4	-7.1	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, \* = Provisional/preliminary/estimate/budget figure, - = Magnitude equals zero, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, the People's Republic of China, Georgia, Kiribati, the Kyrgyz Republic, the Federated States of Micronesia, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Tax revenue includes local government taxes.

Source: Country sources.

## Government Finance

Table 7.2 **Tax Revenue<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	3.8	3.3	2.3	7.7	6.4	9.2	...
Armenia	...	10.6	14.8	14.4	14.6	14.0	14.0	14.3	14.5	16.1	20.3	19.9	20.0	20.4
Azerbaijan	...	10.8	12.2	13.4	13.8	14.1	14.4	14.0	16.3	18.4	16.8	14.4	12.4	12.8
Georgia	...	...	14.6	14.8	15.0	14.6	19.7	20.8	22.8	25.8	24.9	24.4	23.5	25.3
Kazakhstan	...	15.8	20.2	19.6	19.9	20.5	20.2	26.3	21.6	18.3	17.6	13.1	13.4	14.6
Kyrgyz Republic	25.7	15.1	11.7	12.4	13.9	14.2	14.8	16.2	17.6	18.7	19.1	17.9	17.9	19.4
Pakistan	14.0	13.8	10.6	10.5	10.7	11.4	10.8	10.1	10.5	10.3	10.3	9.5	10.1	10.5
Tajikistan	...	8.4	13.1	13.7	14.7	15.0	15.1	16.5	16.8	17.9	18.6	17.7	18.0	19.5
Turkmenistan	...	...	23.0	22.2	17.4	18.3	20.9	...	...	...	...	...	...	...
Uzbekistan	...	27.8	...	23.4	22.9	22.4	22.7	21.5	19.8	20.1	20.9	20.7	20.4	20.2
<b>East Asia</b>														
China, People's Rep. of	15.1	9.9	12.7	14.0	14.7	14.7	15.1	15.6	16.1	17.2	17.3	17.5	18.2	...
Hong Kong, China	10.2	11.2	9.8	9.8	9.1	10.6	12.0	12.6	12.7	14.2	13.0	12.8	13.9	14.4
Korea, Rep. of	14.8	15.2	17.9	17.4	17.2	14.9	14.2	14.7	15.2	16.5	16.3	15.4	15.2	15.6
Mongolia	44.6	19.2	25.6	29.4	29.0	25.4	27.1	24.9	28.0	30.3	28.8	24.6	31.9	33.6
Taipei, China	12.7	10.3	13.3	9.0	7.9	7.7	8.0	9.1	8.9	9.3	9.8	8.4	7.9	...
<b>South Asia</b>														
Bangladesh	5.8	7.9	6.8	7.8	7.8	8.3	8.5	8.6	8.7	8.3	8.8	9.0	9.0	9.9
Bhutan	4.4	6.6	10.0	8.4	10.1	10.0	8.6	9.5	10.4	8.6	9.7	10.5	14.4	15.2*
India	7.5	6.9	6.5	5.9	6.5	6.8	6.9	7.3	8.2	8.8	7.9	7.1	7.4	7.3
Maldives	...	13.6	13.8	10.7	10.3	10.4	12.0	13.6	14.2	14.7	13.9	11.0	11.0	16.2
Nepal	6.6	8.4	8.1	8.8	8.6	8.7	9.0	9.2	8.8	9.8	10.4	11.8	13.2	13.1
Sri Lanka	19.3	17.9	14.2	14.4	13.6	12.7	13.5	13.7	14.6	14.2	13.3	12.8	12.9	12.4
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	25.2	18.4	23.4	23.0	22.3	30.0	27.7	33.1	30.3	34.4	36.4	24.0	3.2	1.6
Cambodia	2.2	5.3	7.3	7.0	7.6	6.8	7.7	7.7	8.0	10.2	11.2	10.1	10.7	10.8
Indonesia	17.8	16.0	8.3	11.3	11.6	12.0	12.2	12.5	12.3	12.4	13.3	11.1	11.6	11.8
Lao PDR	6.1	9.4	10.6	11.0	10.6	9.1	9.3	9.7	9.9	11.7	12.2	13.1	13.3	...
Malaysia	17.8	18.7	13.2	17.4	17.4	15.5	15.2	14.8	14.5	14.3	14.7	14.9	13.8	15.3
Myanmar	6.2	3.7	2.0	...	...	...	...	...	4.3	3.8	3.6	3.2	3.2	...
Philippines	14.1	16.3	12.8	12.7	12.1	12.1	11.8	12.4	13.7	13.5	13.6	12.2	12.1	12.3
Singapore	14.6	15.9	15.1	14.9	13.0	12.7	11.6	11.5	11.7	12.8	14.3	13.0	13.2	...
Thailand	16.0	16.4	12.9	12.9	13.3	14.2	14.7	15.3	15.2	14.6	15.1	13.8	14.5	16.0
Viet Nam <sup>c</sup>	11.5	19.1	18.0	19.1	19.8	20.9	21.7	22.8	24.3	23.5	24.4	22.5	24.3	23.1
<b>The Pacific</b>														
Cook Islands	...	37.5	22.3	24.1	25.1	23.1	22.3	25.3	23.4	22.5	23.2	23.8	25.0	...
Fiji	22.3	21.9	20.0	19.7	19.7	21.3	22.0	21.0	22.8	22.4	21.7	21.5	21.4	22.6
Kiribati	30.4	21.7	21.3	21.3	20.3	20.7	22.9	22.2	21.9	22.6	21.3	20.6	20.7	...
Marshall Islands	17.9	16.5	15.4	15.9	16.1	18.2	17.2	17.6	17.5	18.1	17.1	16.1	15.5	...
Micronesia, Fed. States of	8.8	9.5	11.9	11.0	10.9	9.8	11.4	11.7	11.7	10.8	11.1	11.3	11.9	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	15.4	15.5	13.7	13.8	14.2	15.0	14.1	14.1	14.7	14.5	15.1	14.5
Papua New Guinea	19.5	19.5	23.8	22.1	20.0	20.2	23.9	24.8	29.3	31.1	26.6	22.3	24.4	26.5
Samoa	35.4	22.0	20.6	21.0	20.5	21.6	20.5	20.5	21.7	23.3	23.0	22.8	21.9	22.4
Solomon Islands	22.9	21.4	19.1	14.4	15.9	19.0	22.8	24.3	25.1	28.2	29.7	28.5	29.6	36.3
Timor-Leste	...	...	...	...	...	...	4.3	1.5	1.0	0.9	0.9	1.4	1.2	...
Tonga	18.3	13.4	15.8	16.5	18.5	18.5	18.1	19.2	20.6	20.9	21.1	19.8	16.3	...
Tuvalu	...	18.7	21.6	23.9	21.1	19.8	19.7	21.3	18.3	19.5	16.8	16.2	16.2	18.9
Vanuatu	22.6	19.6	15.3	14.9	15.0	15.2	15.7	16.0	16.3	17.6	18.2	17.2	16.5	16.1
<b>Developed Member Economies</b>														
Australia	22.4	21.1	23.1	24.8	23.6	24.3	24.4	24.9	24.7	24.2	24.3	22.2	20.7	20.6
Japan	13.9	10.7	10.4	9.9	9.1	8.9	9.4	10.2	10.6	10.2	9.0	8.4	8.9	...
New Zealand	34.3	33.1	30.2	29.3	30.5	30.8	30.9	32.3	32.9	32.4	31.8	28.6	28.7	...

\* = Provisional/preliminary/estimate/budget figure, ... = Data not available at cutoff date, GDP = gross domestic product..

a Data refer to central government, except for Bangladesh, the People's Republic of China, Georgia, Kiribati, the Kyrgyz Republic, the Federated States of Micronesia, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Tax revenue includes local government taxes.

Source: Country sources.

**Table 7.3 Total Government Revenue<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	2.9	4.2	4.7	6.9	8.3	6.5	7.7	8.3	10.8	...
Armenia	...	14.4	15.9	15.7	15.5	14.9	15.1	16.2	16.0	17.9	22.2	22.0	22.3	21.5
Azerbaijan	34.1	11.8	14.7	14.7	14.8	17.0	17.7	16.3	20.6	21.2	26.8	29.0	26.8	31.3
Georgia	...	...	15.5	15.9	16.1	15.8	22.5	27.1	30.8	33.9	31.1	28.3	27.1	29.0
Kazakhstan	...	19.6	22.9	23.0	21.7	22.2	21.9	27.6	22.9	20.5	18.5	14.1	14.2	15.3
Kyrgyz Republic	26.8	16.7	14.2	16.1	18.0	18.8	18.7	19.8	21.8	24.1	24.0	22.6	23.1	25.3
Pakistan	19.3	17.3	13.4	12.2	12.1	12.3	13.5	13.5	13.5	14.6	14.6	14.5	14.0	14.3
Tajikistan	...	10.0	14.1	14.9	16.5	17.0	17.2	19.2	19.3	18.9	19.5	18.8	19.3	21.1
Turkmenistan	...	20.5	23.5	22.3	18.2	19.2	22.2	20.5	20.2	17.3	20.9	19.2	14.3	...
Uzbekistan	...	29.7	28.0	25.7	25.0	23.5	23.5	22.6	21.2	21.8	22.5	22.0	21.8	21.9
<b>East Asia</b>														
China, People's Rep. of	15.7	10.3	13.5	14.9	15.7	16.0	16.5	17.1	17.9	19.3	19.5	20.1	20.7	22.3
Hong Kong, China	14.9	16.1	17.1	13.5	13.9	16.8	18.4	17.9	19.5	22.2	18.9	19.6	21.6	22.9
Korea, Rep. of	16.8	17.8	22.5	22.1	22.0	22.4	21.6	22.1	23.1	25.0	24.4	24.0	23.1	23.6
Mongolia	50.9	24.7	34.0	38.6	38.0	32.8	32.9	30.0	33.7	37.5	32.9	30.0	36.7	38.4
Taipei, China	16.3	13.3	18.0	12.7	13.1	12.9	12.1	14.8	12.9	12.7	13.1	12.3	11.1	...
<b>South Asia</b>														
Bangladesh	6.8	9.8	8.5	9.6	10.2	10.4	10.6	10.6	10.8	10.5	11.1	11.6	11.5	12.5
Bhutan	18.8	19.1	23.2	21.7	19.3	16.3	16.2	17.3	17.8	20.4	22.9	22.7	23.4	22.9
India	10.7	9.9	9.8	9.7	10.9	12.6	11.5	9.7	10.3	11.7	9.7	9.4	10.7	9.0
Maldives	...	25.8	30.0	23.5	24.4	24.4	24.3	29.8	31.7	33.1	28.7	21.4	24.1	27.8
Nepal	8.4	10.4	10.5	11.1	11.0	11.4	11.3	11.7	10.8	11.9	12.9	14.1	15.0	15.2
Sri Lanka	21.4	20.6	16.4	16.3	16.0	15.2	14.9	15.5	16.3	15.8	14.9	14.5	14.6	14.3
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	42.4	36.5	49.1	42.2	40.8	55.8	48.1	53.2	50.4	52.3	55.7	41.0	54.3	47.7
Cambodia	3.9	7.6	10.0	9.8	10.6	9.8	10.4	10.6	11.4	12.1	13.3	11.9	13.2	12.7
Indonesia	18.8	17.7	14.7	18.3	16.5	16.9	17.6	17.8	19.1	17.9	19.8	15.1	15.8	16.2
Lao PDR	9.9	11.1	13.1	13.5	13.2	11.0	11.2	11.7	11.6	13.2	13.9	14.8	15.1	...
Malaysia	24.8	22.9	17.4	22.6	21.8	22.1	21.0	19.6	20.7	21.0	20.8	22.3	20.1	21.0
Myanmar	9.6	6.5	4.2	...	...	...	...	...	17.6	17.2	15.8	13.9	14.0	...
Philippines	16.6	18.9	14.3	14.5	13.8	14.0	13.8	14.4	15.6	16.5	15.6	14.0	13.4	14.0
Singapore	30.7	34.8	29.8	27.1	23.0	20.9	19.9	20.7	20.3	24.6	24.9	18.5	22.4	...
Thailand	17.5	18.1	14.7	15.6	15.1	16.5	16.8	17.4	17.1	16.5	17.1	15.7	16.7	17.9
Viet Nam <sup>c</sup>	14.7	21.9	20.1	21.2	22.3	25.3	27.4	28.0	28.9	28.9	28.6	27.6	28.0	26.4
<b>The Pacific</b>														
Cook Islands	...	39.8	27.0	28.9	27.9	26.3	26.5	29.3	27.3	26.4	27.0	27.3	29.9	...
Fiji	28.1	25.5	25.5	23.9	25.9	24.4	25.0	23.9	26.0	25.4	25.4	25.1	25.3	25.1
Kiribati	112.0	79.5	93.4	109.0	78.7	70.9	84.4	69.4	76.5	96.8	85.4	74.5	79.1	...
Marshall Islands	31.3	29.6	22.0	20.5	22.0	22.6	25.5	25.8	25.4	25.8	25.6	25.0	24.7	...
Micronesia, Fed. States of	27.3	26.4	22.5	18.9	19.4	19.7	24.9	20.8	21.6	20.5	21.0	21.2	22.3	20.4
Nauru	...	...	...	...	...	...	...	33.1	72.3	44.9	27.5	41.7	39.2	...
Palau	...	...	19.5	20.5	17.9	19.3	18.9	19.8	18.3	18.1	18.5	18.5	18.8	18.9
Papua New Guinea	24.9	24.0	25.7	23.7	21.4	22.3	26.0	26.8	31.9	33.4	28.1	25.9	26.1	27.7
Samoa	48.5	29.3	25.6	23.7	22.3	24.0	23.0	24.0	25.2	27.1	26.4	26.8	25.1	27.4
Solomon Islands	26.6	27.7	21.6	15.3	16.8	20.9	24.7	26.7	29.9	32.4	33.0	32.4	32.2	39.8
Timor-Leste	...	...	...	...	...	...	18.6	9.7	6.9	7.5	10.4	18.2	22.0	...
Tonga	34.1	25.6	21.1	23.0	21.9	21.2	22.1	22.8	24.4	24.6	24.8	27.1	20.6	...
Tuvalu	...	...	216.4	120.0	142.9	53.3	52.4	55.1	47.1	47.8	55.3	59.6	51.9	56.2
Vanuatu	27.8	24.2	18.2	17.3	16.8	16.8	17.6	18.0	18.4	19.8	20.2	19.5	18.1	17.7
<b>Developed Member Economies</b>														
Australia	23.6	22.1	25.2	26.3	25.2	25.8	25.8	26.3	26.2	25.7	25.8	23.8	22.6	22.0
Japan	15.3	12.0	11.8	11.6	10.6	10.3	10.8	11.9	14.8	12.2	13.0	11.6	11.2	...
New Zealand	40.9	38.3	34.6	33.7	35.0	35.0	35.2	36.7	38.4	37.3	36.7	34.0	33.8	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, the People's Republic of China, Georgia, Kiribati, the Kyrgyz Republic, the Federated States of Micronesia, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Tax revenue includes local government taxes.

Source: Country sources.

## Government Finance

Table 7.4 **Total Government Expenditure<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	7.7	13.0	16.4	16.5	21.1	19.1	21.1	20.8	20.6	...
Armenia	...	24.0	20.1	19.4	18.6	18.8	17.0	18.0	17.4	19.4	22.7	29.6	27.3	24.0
Azerbaijan	...	20.1	16.2	15.2	15.3	17.1	17.4	16.8	19.8	21.3	26.4	29.3	27.6	30.4
Georgia	...	...	16.3	17.2	17.0	17.2	22.8	26.6	28.9	33.7	36.4	38.3	34.0	30.7
Kazakhstan	35.6	25.7	22.2	22.3	21.2	22.2	21.9	25.6	22.0	24.1	26.9	23.3	22.0	21.5
Kyrgyz Republic	37.1	27.8	18.0	17.7	20.7	20.6	20.4	20.4	22.4	25.3	24.0	29.1	31.2	33.4
Pakistan	25.9	23.0	18.9	17.5	18.6	18.9	16.6	16.8	18.4	20.9	22.5	19.8	20.3	19.1
Tajikistan	...	17.4	14.7	14.8	16.1	16.2	17.6	19.4	19.0	27.2	26.7	26.8	25.1	27.4
Turkmenistan	...	20.1	23.9	21.1	18.1	19.4	18.9	19.1	14.9	13.4	10.9	12.6	12.6	...
Uzbekistan	...	32.6	28.9	25.5	25.9	24.8	23.5	22.5	20.8	20.7	21.0	21.8	21.5	21.5
<b>East Asia</b>														
China, People's Rep. of	18.5	...	16.3	17.5	18.3	18.1	17.8	18.3	18.7	18.7	19.9	22.4	22.4	23.4
Hong Kong, China	14.3	16.4	17.7	18.4	18.7	20.0	18.7	16.9	15.4	14.5	18.6	17.8	17.4	19.4
Korea, Rep. of	15.2	15.3	18.1	19.4	18.8	21.7	20.8	21.4	22.0	20.8	22.7	23.9	21.4	22.1
Mongolia	61.9	23.3	36.0	38.2	38.9	31.6	29.9	24.8	28.8	33.6	36.4	34.1	33.8	39.7
Taipei, China	14.5	14.3	22.6	19.0	15.9	15.1	14.5	15.1	13.1	13.0	13.9	15.9	13.8	...
<b>South Asia</b>														
Bangladesh	12.4	14.4	14.5	14.8	14.9	14.5	14.8	15.0	14.7	14.1	17.1	14.0	15.2	15.2
Bhutan	33.9	37.2	42.2	46.6	37.0	33.7	31.3	36.0	33.8	30.7	36.4	33.7	38.6	38.7
India	17.3	14.1	15.5	15.9	16.8	17.1	15.4	13.7	13.6	14.3	15.7	15.9	15.6	14.9
Maldives	...	36.6	37.3	29.6	29.6	29.2	27.4	45.5	42.4	42.2	42.7	44.7	41.4	41.8
Nepal	17.7	16.6	16.3	18.1	17.4	15.1	14.7	15.1	14.5	16.0	17.2	20.3	20.4	21.4
Sri Lanka	28.7	29.6	25.0	25.9	23.8	22.5	22.6	23.8	24.2	23.2	22.1	24.0	22.1	20.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>b</sup>	43.7	66.0	40.6	38.4	45.3	50.1	36.8	32.1	28.9	30.3	27.8	34.8	28.5	23.7
Cambodia	8.4	14.8	14.8	16.2	17.7	15.9	13.9	13.2	14.1	14.7	15.9	20.5	21.3	20.3
Indonesia	19.6	14.7	15.8	20.7	18.0	18.7	18.6	18.4	20.0	19.2	19.9	16.7	16.6	17.4
Lao PDR	23.4	26.7	20.8	22.2	18.7	19.6	15.4	18.4	17.2	18.5	18.8	20.8	23.9	...
Malaysia	27.7	22.1	22.9	27.8	27.1	27.1	25.1	23.0	23.9	24.1	25.4	28.9	25.5	25.9
Myanmar	12.4	9.8	3.5	...	...	...	...	...	21.9	21.0	18.2	18.5	18.5	...
Philippines	20.4	18.2	18.1	18.3	18.7	18.3	17.3	16.9	16.7	16.7	16.3	17.7	16.8	15.8
Singapore	20.2	15.6	18.5	21.5	18.3	17.9	16.0	14.4	14.3	13.5	17.0	16.9	14.7	...
Thailand	13.2	15.3	16.9	17.3	22.8	16.5	17.2	17.3	17.3	17.7	17.7	19.6	19.1	19.8
Viet Nam <sup>c</sup>	21.9	23.8	22.6	24.4	24.2	26.4	26.2	27.3	27.5	29.4	27.7	30.6	30.7	28.0
<b>The Pacific</b>														
Cook Islands	...	48.3	31.0	33.0	34.7	30.9	31.2	33.3	33.2	29.9	28.8	34.4	35.6	...
Fiji	29.8	26.0	28.6	31.3	31.2	30.3	28.2	27.3	29.0	27.4	24.9	29.2	27.4	28.7
Kiribati	165.0	86.7	86.5	91.8	101.8	89.8	107.7	106.6	92.3	91.2	93.6	89.3	90.2	...
Marshall Islands	92.2	93.1	58.6	62.6	58.4	54.7	59.4	65.6	64.8	72.0	66.4	67.8	62.4	...
Micronesia, Fed. States of	92.9	77.0	67.2	64.1	59.1	63.7	70.7	59.3	60.0	58.9	58.5	63.7	66.9	61.3
Nauru	...	...	...	...	...	...	...	28.5	64.0	82.9	54.5	80.5	83.6	...
Palau	...	68.5	56.8	51.5	49.7	51.1	49.3	38.2	43.8	46.1	43.2	46.5	45.3	40.6
Papua New Guinea	34.2	28.3	32.9	34.1	31.0	28.6	30.7	35.2	34.2	34.8	35.0	30.0	30.7	31.5
Samoa	70.0	39.6	31.2	32.1	32.3	30.2	29.0	32.6	30.3	31.7	32.7	37.9	42.1	41.9
Solomon Islands	35.3	32.3	31.6	26.4	44.1	38.1	29.4	34.6	31.0	36.5	42.0	37.0	34.6	40.5
Timor-Leste	...	...	...	...	...	...	7.2	5.7	7.1	8.2	11.0	18.4	18.4	...
Tonga	37.1	26.3	22.2	21.9	22.6	21.3	21.3	21.1	27.7	24.6	22.6	28.0	28.4	...
Tuvalu	...	53.2	186.9	137.7	91.6	101.5	71.8	77.9	73.2	73.0	75.9	93.3	104.1	93.3
Vanuatu	37.6	29.3	25.3	22.5	22.2	19.2	18.3	17.9	19.2	21.4	24.4	25.7	27.0	23.4
<b>Developed Member Economies</b>														
Australia	21.9	25.0	23.5	25.4	25.7	25.0	25.0	25.0	24.5	24.0	24.0	26.1	26.7	25.7
Japan	15.7	16.0	18.1	17.3	17.2	16.8	15.9	16.0	15.6	14.6	15.9	19.1	18.0	...
New Zealand	45.3	35.5	32.6	32.0	31.3	31.2	31.0	31.8	32.8	32.5	35.7	36.4	40.8	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for Bangladesh, the People's Republic of China, Georgia, Kiribati, the Kyrgyz Republic, the Federated States of Micronesia, Pakistan, and Tajikistan, where data refer to consolidated government or general government.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

c Total expenditure includes local government expenditure.

Source: Country sources.

Table 7.5 **Government Expenditure on Education<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	2.8	2.5	2.1	2.1	2.5	2.7	2.7	3.0	2.9	3.4	2.8	2.8
Azerbaijan	7.7	3.5	3.9	3.5	3.2	3.3	3.4	3.0	2.6	2.5	2.4	3.2	2.8	2.5
Georgia	...	...	2.2	2.1	2.2	1.9	2.9	2.5	3.0	2.7	2.9	3.2	2.9	2.7
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	7.5	6.6	3.5	3.9	4.4	4.5	4.6	4.9	5.5	6.5	5.9	6.2	5.8	7.1
Pakistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	...	2.2	2.3	2.4	2.6	2.4	2.7	3.5	3.4	3.4	3.5	4.1	4.0	4.6
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of <sup>b</sup>	4.0	2.0	...	...	3.3	3.3	3.2	3.3	2.6	3.0	3.2	3.1	3.1	...
Hong Kong, China	2.8	3.0	4.0	4.1	4.4	4.6	4.2	3.9	3.5	3.3	4.5	3.6	3.5	3.6
Korea, Rep. of	2.9	2.4	3.2	3.5	3.0	3.1	2.8	3.2	3.1	3.1	3.7	3.7	3.2	3.3
Mongolia	11.5	4.3	8.1	8.8	8.4	6.9	6.6	5.3	4.8	5.1	5.8	6.0	5.9	5.9
Taipei, China	1.0	1.4	2.3	1.8	1.8	1.8	1.7	1.6	1.7	1.6	1.7	2.0	1.8	...
<b>South Asia</b>														
Bangladesh	1.4	2.2	2.0	2.3	2.1	2.1	2.0	1.9	2.0	2.1	1.9	1.7	2.2	2.2
Bhutan	...	...	...	...	5.4	5.0	4.2	5.2	5.1	6.0	5.7	5.9	6.7	...
India	...	...	3.3	3.6	3.3	3.1	2.5	2.4	2.6	2.6	2.8	...	...	...
Maldives	...	4.8	4.7	5.3	6.8	6.5	7.4	5.2	6.0	6.0	5.5	6.7	6.3	6.7
Nepal	1.6	2.2	2.3	2.5	2.8	2.7	2.7	2.9	3.0	3.0	3.3	3.6	3.9	4.0
Sri Lanka	3.0	2.9	2.4	2.0	2.3	2.1	2.0	2.6	2.7	2.6	2.3	2.1	1.9	1.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>c</sup>	4.0	4.6	4.2	4.0	4.7	6.0	3.0	3.7	3.3	3.0	3.0	3.9	3.8	3.4
Cambodia	0.8	0.9	1.3	1.3	1.7	1.6	1.5	1.4	1.5	1.4	1.4	1.6	1.6	1.4
Indonesia	1.7	1.3	...	0.8	0.7	1.0	0.8	...	...	...	...	...	...	...
Lao PDR	0.5	0.1	1.0	1.7	...	...	...	...	...	...	...	...	...	...
Malaysia	5.5	4.8	5.6	7.0	7.7	7.0	5.4	4.9	5.2	5.5	5.8	7.0	6.3	5.6
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	3.1	3.2	3.3	3.0	3.0	2.8	2.5	2.3	2.3	2.4	2.4	2.6	2.5	2.8
Singapore	4.0	2.9	3.9	4.2	4.3	3.9	3.5	3.2	2.9	2.9	3.1	3.2	3.2	...
Thailand	2.7	2.9	3.1	3.4	3.4	3.4	3.4	4.1	4.2	4.2	3.9	3.7	3.9	3.7
Viet Nam	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>														
Cook Islands	...	5.8	3.2	4.1	3.4	4.4	4.5	5.3	5.1	4.8	4.4	5.1	4.8	...
Fiji	3.5	4.0	4.2	4.3	4.5	4.4	4.1	3.7	4.0	4.0	3.8	3.8	3.4	...
Kiribati	12.3	11.7	10.9	13.1	12.9	13.8	14.6	14.4	15.8	14.2	13.2	14.0	10.5	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	7.3	4.7	5.1	3.4	2.6	...	...	...	...	...	...	...	...	...
Samoa	...	4.4	4.9	4.5	4.7	4.7	4.8	4.4	4.4	7.1	7.4	4.9	4.8	4.8
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	1.4	0.9	0.9	0.7	1.0	1.9	1.7	...
Tonga	3.9	3.8	4.4	...	...	3.7	3.8	3.7	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	5.0	5.2	4.8	5.0	5.5	5.2	4.7	4.4	4.5	4.6	...	...	...	...
<b>Developed Member Economies</b>														
Australia	...	...	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.7	2.8	2.4
Japan	3.5	3.7	3.9	3.9	3.9	3.9	3.8	3.0	3.0	3.0	3.0	3.2	3.1	...
New Zealand	...	4.6	5.0	4.9	4.9	5.0	5.0	...	...	...	...	...	...	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for the People's Republic of China, Georgia, Japan, the Kyrgyz Republic, and Tajikistan, where data refer to consolidated government or general government.

b Prior to 2006, includes health data.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

## Government Finance

Table 7.6 **Government Expenditure on Health<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	1.0	1.3	1.2	1.2	1.3	1.4	1.5	1.5	1.4	1.8	1.6	1.6
Azerbaijan	2.9	1.4	0.9	0.8	0.7	0.8	0.9	0.9	0.9	0.9	0.9	1.1	1.0	1.0
Georgia	...	...	...	0.8	0.9	0.3	1.0	1.8	1.6	1.5	1.6	2.0	2.2	1.6
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	3.7	3.9	2.0	1.9	2.0	1.9	2.0	2.3	2.7	2.8	2.5	3.1	3.1	3.5
Pakistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan	...	1.4	0.9	0.9	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.8
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of <sup>b</sup>	...	...	...	...	...	...	...	...	0.6	0.7	0.9	1.2	1.2	...
Hong Kong, China	1.5	2.2	2.5	2.6	2.6	2.8	2.5	2.3	2.2	2.1	2.2	2.4	2.3	2.4
Korea, Rep. of	...	...	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2
Mongolia	5.5	2.9	4.5	4.8	4.7	3.5	3.4	2.9	2.5	2.8	3.1	3.0	2.9	3.0
Taipei, China	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.2	...
<b>South Asia</b>														
Bangladesh	0.6	1.0	1.0	0.9	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.8	1.0	1.1
Bhutan	...	...	...	...	4.3	2.9	2.7	2.7	2.6	3.4	3.3	3.2	3.0	...
India	...	...	0.7	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.7	...	...	...
Maldives	...	3.3	3.6	3.5	3.5	3.7	4.1	3.1	3.0	3.0	3.1	4.1	4.1	4.0
Nepal	0.6	0.6	0.8	0.8	0.9	0.7	0.7	0.8	0.9	1.0	1.2	1.4	1.4	1.6
Sri Lanka	1.6	1.7	1.6	1.3	1.5	1.5	1.6	1.8	2.0	1.9	1.7	1.5	1.3	1.4
<b>Southeast Asia</b>														
Brunei Darussalam <sup>c</sup>	1.6	2.3	2.1	2.0	2.0	2.5	1.3	1.7	1.5	1.4	1.4	2.1	1.9	1.6
Cambodia	1.5	0.3	0.9	0.8	1.0	0.9	0.9	0.9	0.9	1.0	1.0	1.2	1.3	1.3
Indonesia	0.4	0.4	...	0.3	0.2	0.4	0.3	...	...	...	...	...	...	...
Lao PDR	0.1	0.1	1.0	0.5	...	...	...	...	...	...	...	...	...	...
Malaysia	1.5	1.2	1.5	1.8	1.7	2.1	2.0	1.6	1.7	1.7	1.7	2.1	2.1	1.9
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	0.7	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.4
Singapore	0.9	1.2	0.9	1.2	1.0	1.4	0.9	0.9	0.8	0.8	1.0	1.4	1.2	...
Thailand	0.9	1.0	1.1	1.0	1.1	1.1	1.2	1.5	1.5	1.4	1.3	1.2	1.5	1.5
Viet Nam	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>														
Cook Islands	...	4.8	3.1	4.3	3.4	3.6	3.5	4.4	3.8	3.7	3.6	4.5	4.0	...
Fiji	1.6	2.1	2.3	2.4	2.5	2.5	2.3	2.2	2.1	2.2	2.0	2.1	1.9	...
Kiribati	9.4	9.0	7.5	8.4	8.3	9.1	9.9	9.5	9.4	9.8	11.3	9.5	9.2	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	2.9	2.0	1.6	1.7	1.5	...	...	...	...	...	...	...	...	...
Samoa	...	3.0	4.0	3.5	3.9	3.8	3.5	3.3	3.8	3.5	4.0	5.0	4.4	4.3
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	0.8	0.7	0.7	0.4	0.6	0.9	0.8	...
Tonga	2.8	2.5	4.8	...	...	2.3	2.8	7.1	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	2.6	2.3	2.3	2.3	2.4	2.3	1.9	1.8	1.8	1.9	...	...	...	...
<b>Developed Member Economies</b>														
Australia	...	...	3.9	3.6	3.7	3.6	3.7	3.9	3.8	3.7	3.8	3.9	4.0	4.0
Japan	4.5	5.2	6.3	6.5	6.6	6.8	6.9	5.9	5.8	5.9	6.1	6.8	6.8	...
New Zealand	...	4.7	5.4	5.3	5.3	5.3	5.4	...	...	...	...	...	...	...

... = Data not available at cutoff date, GDP = gross domestic product.

a Data refer to central government, except for the People's Republic of China, Georgia, Japan, the Kyrgyz Republic, and Tajikistan, where data refer to consolidated government or general government.

b Prior to 2006, data included in education expenditure category.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.

**Table 7.7 Government Expenditure on Social Security and Welfare<sup>a</sup>**  
(% of GDP)

Regional Member	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Armenia	...	...	2.1	2.2	1.7	1.8	1.8	2.0	2.0	2.0	7.7	10.0	9.0	8.6
Azerbaijan	3.9	1.7	3.0	2.7	3.1	3.0	2.8	2.4	1.8	2.1	2.1	3.0	2.6	3.0
Georgia	...	...	4.3	3.8	4.1	4.0	4.9	5.4	5.0	3.8	1.7	2.6	6.9	6.4
Kazakhstan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyrgyz Republic	4.9	5.7	1.7	1.9	3.1	3.1	2.8	2.8	3.2	2.7	2.5	2.8	5.0	5.2
Pakistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tajikistan <sup>b</sup>	...	0.1	1.8	1.9	2.1	2.3	2.6	3.2	3.4	2.8	2.9	3.5	3.5	3.5
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>East Asia</b>														
China, People's Rep. of	0.3	0.2	0.7	1.2	1.5	1.3	1.3	1.4	1.4	2.0	2.2	2.2	2.3	...
Hong Kong, China	0.9	1.2	2.1	2.3	2.5	2.7	2.6	2.4	2.3	2.2	2.3	2.5	2.3	2.3
Korea, Rep. of	1.3	1.0	3.2	2.8	2.9	2.8	3.8	3.8	4.1	4.3	4.6	5.1	4.8	4.9
Mongolia	7.7	4.2	7.5	7.6	7.8	7.1	7.0	6.7	6.4	7.7	11.1	11.2	12.9	16.0
Taipei, China	2.8	3.4	5.7	4.1	3.6	3.7	3.4	3.4	3.4	3.2	3.3	3.5	3.2	...
<b>South Asia</b>														
Bangladesh	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Bhutan	...	...	...	...	1.8	1.8	1.8	2.2	1.5	1.8	1.4	1.9	1.8	...
India	...	...	0.8	0.9	1.0	0.8	0.7	0.7	1.0	0.9	1.0	...	...	...
Maldives	...	1.1	0.9	1.1	1.1	1.0	1.0	1.0	0.9	1.2	1.3	3.9	1.8	1.2
Nepal	1.1	0.5	0.8	0.8	1.1	1.0	0.8	0.7	0.7	0.6	1.2	1.7	1.0	0.7
Sri Lanka	3.8	5.1	2.8	3.1	2.9	2.6	3.5	3.8	3.0	2.6	2.1	2.2	1.9	1.9
<b>Southeast Asia</b>														
Brunei Darussalam <sup>c</sup>	1.1	1.3	1.2	1.0	1.0	1.2	0.8	...	...	...	...	...	...	...
Cambodia	...	0.4	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Indonesia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lao PDR	...	0.0	0.7	0.8	...	...	...	...	...	...	...	...	...	...
Malaysia	1.2	0.8	0.9	1.3	1.3	1.5	1.0	0.9	0.9	1.0	1.0	1.1	1.2	0.9
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	0.2	0.4	0.7	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.5	1.0
Singapore	0.4	0.8	0.7	2.7	0.8	0.4	0.5	0.3	1.2	0.6	2.0	2.2	1.2	...
Thailand	0.5	0.5	0.6	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.9	2.1	1.4	1.7
Viet Nam	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	...
Kiribati	...	...	0.9	1.1	1.3	1.7	1.8	1.8	1.9	1.7	1.7	1.8	1.7	...
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	0.3	0.2	0.5	0.4	0.4	...	...	...	...	...	...	...	...	...
Samoa	...	0.9	1.1	1.1	1.2	1.2	1.1	1.0	1.1	1.0	1.1	1.1	1.1	1.0
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Timor-Leste	...	...	...	...	...	...	...	...	...	0.7	0.7	3.4	3.5	...
Tonga	0.4	0.5	1.6	...	...	1.5	1.8	1.5	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	0.0	0.0	0.0	0.0	0.0	...	...	...	...	...	...	...
<b>Developed Member Economies</b>														
Australia	...	...	8.6	9.5	9.2	8.9	9.3	9.0	8.7	8.5	8.3	10.0	8.4	8.3
Japan	7.4	9.1	10.6	11.1	11.5	11.6	11.7	13.7	13.9	14.2	14.9	16.9	17.0	...
New Zealand	...	11.9	12.0	11.5	11.0	10.5	10.0	...	...	...	...	...	...	...

... = Data not available at cutoff date, 0.0 = Magnitude is less than half of unit employed, GDP = gross domestic product.

a Data refer to central government, except for the People's Republic of China, Georgia, Japan, the Kyrgyz Republic, and Tajikistan, where data refer to consolidated government or general government.

b From 2000 onward, includes defense.

c Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Country sources.



## Governance

Table 7.8 **Doing Business Start-Up Indicators**

Regional Member	Cost of Business Start-Up Procedure (% of GNI per capita)									Time Required to Start Up Business (days)								
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Developing Member Economies</b>	<b>18.4</b>	<b>19.3</b>	<b>27.7</b>	<b>24.5</b>	<b>21.1</b>	<b>14.8</b>	<b>10.1</b>	<b>11.3</b>	<b>10.1</b>	<b>35</b>	<b>44</b>	<b>38</b>	<b>30</b>	<b>24</b>	<b>20</b>	<b>15</b>	<b>14</b>	<b>13</b>
<b>Central and West Asia<sup>a</sup></b>																		
Afghanistan	...	52.8	75.2	67.4	84.6	59.5	30.2	26.7	25.8	...	90	9	9	9	9	7	7	7
Armenia	8.4	7.0	6.1	5.1	4.8	3.6	2.6	3.1	2.9	18	18	18	17	17	17	14	14	8
Azerbaijan	16.8	14.4	12.3	9.3	6.9	3.2	2.9	3.1	2.7	105	121	113	51	36	10	10	8	8
Georgia	22.9	13.7	13.7	10.9	9.5	4.0	3.7	5.0	4.3	25	25	21	16	11	3	3	3	2
Kazakhstan	11.1	10.5	8.6	7.0	7.6	5.2	4.8	1.0	0.8	26	26	25	21	21	21	20	19	19
Kyrgyz Republic	12.5	11.5	10.4	10.7	8.8	7.4	5.2	3.7	3.5	21	21	21	21	21	15	11	10	10
Pakistan	40.0	29.3	23.9	21.3	14.0	12.6	5.8	10.7	11.2	24	24	24	24	24	24	21	21	21
Tajikistan	...	...	85.1	75.1	39.6	27.6	24.3	36.9	33.3	...	...	80	80	62	62	38	27	24
Turkmenistan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uzbekistan	17.2	15.4	14.1	14.1	14.2	10.3	11.2	11.9	6.4	29	29	29	29	15	15	15	15	14
<b>East Asia</b>	<b>12.2</b>	<b>10.8</b>	<b>9.5</b>	<b>8.7</b>	<b>7.9</b>	<b>7.1</b>	<b>5.7</b>	<b>5.7</b>	<b>5.1</b>	<b>29</b>	<b>27</b>	<b>27</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>19</b>	<b>17</b>	<b>14</b>
China, People's Rep. of	17.8	15.9	13.6	9.3	8.4	8.4	4.9	4.5	3.5	48	48	48	35	35	41	38	38	38
Hong Kong, China	2.4	3.4	3.4	3.3	3.1	2.0	1.8	2.0	1.9	11	11	11	11	11	11	6	6	3
Korea, Rep. of	18.4	15.7	15.7	18.2	17.1	16.9	14.7	14.7	14.6	17	17	17	17	17	17	14	14	7
Mongolia	16.1	12.5	9.6	7.9	6.6	4.0	3.0	3.2	2.9	20	13	13	13	13	13	13	13	13
Taipei, China	6.3	6.3	5.0	4.6	4.1	4.1	3.9	4.1	2.5	48	48	48	48	48	42	23	15	10
<b>South Asia</b>	<b>40.0</b>	<b>38.4</b>	<b>38.3</b>	<b>41.5</b>	<b>37.8</b>	<b>30.5</b>	<b>30.0</b>	<b>26.4</b>	<b>22.6</b>	<b>51</b>	<b>49</b>	<b>46</b>	<b>40</b>	<b>39</b>	<b>38</b>	<b>33</b>	<b>28</b>	<b>26</b>
Bangladesh	63.9	62.9	56.1	52.1	46.2	25.7	36.2	33.3	30.6	50	50	50	50	74	73	44	19	19
Bhutan	11.9	20.7	19.9	16.6	10.4	8.5	8.0	7.2	7.2	62	62	62	62	48	46	46	46	36
India	53.4	49.5	62.0	78.4	74.6	70.1	66.1	56.5	46.8	89	89	71	35	33	30	30	29	29
Maldives	20.4	12.3	11.5	14.0	13.4	11.5	10.0	9.4	8.9	13	9	9	9	9	9	9	9	9
Nepal	78.0	74.1	69.9	78.5	73.9	60.2	53.6	46.6	37.4	31	31	31	31	31	31	31	31	29
Sri Lanka	12.3	10.7	10.4	9.2	8.5	7.1	5.9	5.4	4.7	58	50	50	50	39	38	38	35	35
<b>Southeast Asia<sup>a</sup></b>	<b>100.1</b>	<b>91.2</b>	<b>60.4</b>	<b>47.6</b>	<b>41.2</b>	<b>35.1</b>	<b>27.0</b>	<b>25.7</b>	<b>22.2</b>	<b>76</b>	<b>73</b>	<b>70</b>	<b>66</b>	<b>63</b>	<b>58</b>	<b>55</b>	<b>51</b>	<b>49</b>
Brunei Darussalam <sup>b</sup>	...	...	...	8.8	9.0	9.2	9.8	13.5	11.8	...	...	...	116	116	116	116	105	101
Cambodia	534.8	480.1	276.1	236.4	190.3	151.7	138.4	128.3	109.7	94	94	86	86	86	85	85	85	85
Indonesia	136.7	130.7	101.7	86.7	80.0	76.7	25.0	21.5	17.9	168	151	151	97	105	76	60	47	45
Lao PDR	23.9	21.3	17.4	15.8	14.7	11.6	9.7	8.9	7.6	153	153	153	123	93	93	93	93	93
Malaysia	33.1	32.0	26.6	25.1	23.1	18.9	15.6	17.5	16.4	37	37	37	37	31	20	18	17	6
Myanmar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Philippines	28.6	24.1	23.9	22.2	24.1	22.7	21.6	22.1	19.1	49	49	47	47	47	41	41	36	35
Singapore	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.7	0.7	8	8	6	6	5	4	3	3	3
Thailand	10.5	10.1	9.2	8.7	8.4	7.4	8.8	6.9	6.2	33	33	33	33	33	33	32	32	29
Viet Nam	31.9	30.6	27.6	24.3	20.0	16.8	13.3	12.1	10.6	63	56	50	50	50	50	44	44	44
<b>The Pacific<sup>a</sup></b>	<b>49.7</b>	<b>60.9</b>	<b>55.9</b>	<b>48.4</b>	<b>40.3</b>	<b>39.3</b>	<b>33.5</b>	<b>34.0</b>	<b>30.4</b>	<b>34</b>	<b>41</b>	<b>47</b>	<b>47</b>	<b>46</b>	<b>45</b>	<b>43</b>	<b>43</b>	<b>36</b>
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	30.2	28.9	28.4	25.8	25.3	25.2	25.3	23.8	25.1	45	45	46	46	46	46	46	46	45
Kiribati	51.6	64.1	40.3	28.4	32.1	36.6	21.6	22.8	22.2	21	31	31	31	31	31	31	31	31
Marshall Islands	20.9	21.3	22.4	18.1	17.7	17.3	16.2	17.3	17.7	17	17	17	17	17	17	17	17	17
Micronesia, Fed. States of	138.5	134.1	133.6	135.9	137.0	137.5	136.9	150.5	142.8	16	16	16	16	16	16	16	16	16
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	5.0	4.9	4.7	4.9	4.7	4.6	4.3	4.2	5.8	24	24	24	28	28	28	28	28	28
Papua New Guinea	28.8	28.2	27.7	23.8	24.2	21.7	18.9	17.7	15.6	51	51	51	51	51	51	51	51	51
Samoa	52.3	48.7	46.4	45.5	41.3	39.8	9.9	9.8	9.7	42	42	35	35	35	35	9	9	9
Solomon Islands	86.5	89.8	90.6	78.9	68.9	63.6	52.7	68.1	34.1	57	57	57	57	57	57	57	57	43
Timor-Leste	...	154.8	125.4	83.3	11.9	6.6	21.3	5.0	4.5	...	92	157	157	147	147	147	147	103
Tonga	16.1	13.6	11.7	10.3	10.8	9.6	8.2	7.0	10.3	32	32	32	32	32	25	25	25	16
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	66.9	81.8	83.5	78.0	69.9	69.7	53.5	48.2	47.1	39	47	47	47	47	47	47	47	35
<b>Developed Member Economies</b>	<b>4.3</b>	<b>4.3</b>	<b>4.3</b>	<b>3.2</b>	<b>2.8</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>12</b>	<b>12</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>
Australia	2.0	2.1	1.9	1.8	0.8	0.8	0.8	0.7	0.7	2	2	2	2	2	2	2	2	2
Japan	10.7	10.6	10.7	7.5	7.5	7.5	7.5	7.5	7.5	31	31	31	23	23	23	23	23	23
New Zealand	0.2	0.2	0.2	0.2	0.1	0.4	0.4	0.4	0.4	12	12	12	12	12	1	1	1	1
<b>DEVELOPING MEMBER ECONOMIES<sup>a</sup></b>	<b>48.0</b>	<b>48.4</b>	<b>41.7</b>	<b>37.6</b>	<b>32.3</b>	<b>28.0</b>	<b>23.1</b>	<b>22.6</b>	<b>19.9</b>	<b>46</b>	<b>48</b>	<b>47</b>	<b>42</b>	<b>39</b>	<b>37</b>	<b>33</b>	<b>31</b>	<b>28</b>
<b>REGIONAL MEMBERS<sup>a</sup></b>	<b>44.6</b>	<b>45.2</b>	<b>39.0</b>	<b>34.5</b>	<b>29.7</b>	<b>25.8</b>	<b>21.4</b>	<b>21.0</b>	<b>18.5</b>	<b>43</b>	<b>45</b>	<b>45</b>	<b>41</b>	<b>39</b>	<b>37</b>	<b>33</b>	<b>31</b>	<b>28</b>
<b>WORLD</b>	<b>96.9</b>	<b>85.7</b>	<b>88.8</b>	<b>109.3</b>	<b>67.9</b>	<b>52.2</b>	<b>42.6</b>	<b>41.1</b>	<b>36.2</b>	<b>51</b>	<b>49</b>	<b>50</b>	<b>46</b>	<b>43</b>	<b>39</b>	<b>36</b>	<b>34</b>	<b>31</b>

... = Data not available at cutoff date, GNI = gross national income.

a For reporting economies only.

b Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Doing Business Online (World Bank 2012).

Table 7.9 Corruption Perceptions Index<sup>a</sup>

Regional Member	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Rank in 2010 <sup>b</sup>	Rank in 2011 <sup>c</sup>
<b>Developing Member Economies</b>														
<b>Central and West Asia</b>														
Afghanistan	...	...	...	...	...	2.5	...	1.8	1.5	1.3	1.4	1.5	176	180
Armenia	2.5	...	...	3.0	3.1	2.9	2.9	3.0	2.9	2.7	2.6	2.6	123	129
Azerbaijan	1.5	2.0	2.0	1.8	1.9	2.2	2.4	2.1	1.9	2.3	2.4	2.4	134	143
Georgia	...	...	2.4	1.8	2.0	2.3	2.8	3.4	3.9	4.1	3.8	4.1	68	64
Kazakhstan	3.0	2.7	2.3	2.4	2.2	2.6	2.6	2.1	2.2	2.7	2.9	2.7	105	120
Kyrgyz Republic	...	...	...	2.1	2.2	2.3	2.2	2.1	1.8	1.9	2.0	2.1	164	164
Pakistan	...	2.3	2.6	2.5	2.1	2.1	2.2	2.4	2.5	2.4	2.3	2.5	143	134
Tajikistan	...	...	...	1.8	2.0	2.1	2.2	2.1	2.0	2.0	2.1	2.3	154	152
Turkmenistan	...	...	...	...	2.0	1.8	2.2	2.0	1.8	1.8	1.6	1.6	172	177
Uzbekistan	2.4	2.7	2.9	2.4	2.3	2.2	2.1	1.7	1.8	1.7	1.6	1.6	172	177
<b>East Asia</b>														
China, People's Rep. of	3.1	3.5	3.5	3.4	3.4	3.2	3.3	3.5	3.6	3.6	3.5	3.6	78	75
Hong Kong, China	7.7	7.9	8.2	8.0	8.0	8.3	8.3	8.3	8.1	8.2	8.4	8.4	13	12
Korea, Rep. of	4.0	4.2	4.5	4.3	4.5	5.0	5.1	5.1	5.6	5.5	5.4	5.4	39	43
Mongolia	...	...	...	...	3.0	3.0	2.8	3.0	3.0	2.7	2.7	2.7	116	120
Taipei, China	5.5	5.9	5.6	5.7	5.6	5.9	5.9	5.7	5.7	5.6	5.8	6.1	33	32
<b>South Asia</b>														
Bangladesh	...	0.4	1.2	1.3	1.5	1.7	2.0	2.0	2.1	2.4	2.4	2.7	134	120
Bhutan	...	...	...	...	...	...	6.0	5.0	5.2	5.0	5.7	5.7	36	38
India	2.8	2.7	2.7	2.8	2.8	2.9	3.3	3.5	3.4	3.4	3.3	3.1	87	95
Maldives	...	...	...	...	...	...	...	3.3	2.8	2.5	2.3	2.5	143	134
Nepal	...	...	...	...	2.8	2.5	2.5	2.5	2.7	2.3	2.2	2.2	146	154
Sri Lanka	...	...	3.7	3.4	3.5	3.2	3.1	3.2	3.2	3.1	3.2	3.3	91	86
<b>Southeast Asia</b>														
Brunei Darussalam <sup>d</sup>	...	...	...	...	...	...	...	...	...	5.5	5.5	5.2	38	44
Cambodia	...	...	...	...	...	2.3	2.1	2.0	1.8	2.0	2.1	2.1	154	164
Indonesia	1.7	1.9	1.9	1.9	2.0	2.2	2.4	2.3	2.6	2.8	2.8	3.0	110	100
Lao PDR	...	...	...	...	...	3.3	2.6	1.9	2.0	2.0	2.1	2.2	154	154
Malaysia	4.8	5.0	4.9	5.2	5.0	5.1	5.0	5.1	5.1	4.5	4.4	4.3	56	60
Myanmar	...	...	...	1.6	1.7	1.8	1.9	1.4	1.3	1.4	1.4	1.5	176	180
Philippines	2.8	2.9	2.6	2.5	2.6	2.5	2.5	2.5	2.3	2.4	2.4	2.6	134	129
Singapore	9.1	9.2	9.3	9.4	9.3	9.4	9.4	9.3	9.2	9.2	9.3	9.2	1	5
Thailand	3.2	3.2	3.2	3.3	3.6	3.8	3.6	3.3	3.5	3.4	3.5	3.4	78	80
Viet Nam	2.5	2.6	2.4	2.4	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.9	116	112
<b>The Pacific</b>														
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fiji	...	...	...	...	...	4.0	...	...	...	...	...	...	...	...
Kiribati	...	...	...	...	...	...	...	3.3	3.1	2.8	3.2	3.1	91	95
Marshall Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Micronesia, Fed. States of	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nauru	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Papua New Guinea	...	...	...	2.1	2.6	2.3	2.4	2.0	2.0	2.1	2.1	2.2	154	154
Samoa	...	...	...	...	...	...	...	4.5	4.4	4.5	4.1	3.9	62	69
Solomon Islands	...	...	...	...	...	...	...	2.8	2.9	2.8	2.8	2.7	110	120
Timor-Leste	...	...	...	...	...	...	2.6	2.6	2.2	2.2	2.5	2.4	127	143
Tonga	...	...	...	...	...	...	...	1.7	2.4	3.0	3.0	3.1	101	95
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	3.1	2.9	3.2	3.6	3.5	73	77
<b>Developed Member Economies</b>														
Australia	8.3	8.5	8.6	8.8	8.8	8.8	8.7	8.6	8.7	8.7	8.7	8.8	8	8
Japan	6.4	7.1	7.1	7.0	6.9	7.3	7.6	7.5	8.0	7.7	7.8	8.0	17	14
New Zealand	9.4	9.4	9.5	9.5	9.6	9.6	9.6	9.4	9.3	9.4	9.3	9.5	1	1

... = Data not available at cutoff date.

a Score relates to perceptions of the degree of corruption as seen by business people and country analysts, and ranges from 10 (highly clean) to 0 (highly corrupt).

b Based on 178 economies.

c Based on 183 economies.

d Brunei Darussalam is a regional member of ADB, but it is not classified as a developing member.

Source: Transparency International (2012).



## **PART IV**

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# **Definitions**





This part contains the definitions of the indicators for the Millennium Development Goals (MDGs) and Regional Trends and Tables. The definitions are taken mostly from the Asian Development Bank's *Development Indicators Reference Manual*, including websites and publications of international and private organizations such as the Food and Agriculture Organization (FAO); International Labour Organization (ILO); International Monetary Fund (IMF); International Road Federation (IRF); International Telecommunication Union (ITU); The Joint United Nations Programme on HIV/AIDS (UNAIDS); Organisation for Economic Co-operation and Development (OECD); Transparency International; United Nations Children's

Fund (UNICEF); United Nations Educational, Scientific and Cultural Organization (UNESCO); United Nations Population Division (UNPD); United Nations Statistics Division (UNSD); World Bank; World Health Organization (WHO); and World Tourism Organization (UNWTO). The indicators for the MDGs are arranged according to their respective goals and targets before they are defined, while the indicators for the Regional Trends and Tables are grouped according to their themes and subtopics before they are defined. In many instances, the indicators themselves, rather than their growth rates or ratios to another indicator, are defined.

## Millennium Development Goals

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Goal 1: Eradicate extreme poverty and hunger</b>		
<b>Target 1.A:</b> Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1.1 Proportion of population below \$1 (PPP) per day	Proportion of the population living on less than \$1.25 a day, measured at 2005 international prices, adjusted for purchasing power parity (PPP).  PPP conversion factor for private consumption, is the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a US dollar would buy in the United States.
	1.2 Poverty gap ratio	Mean shortfall of the total population from the poverty line (counting the nonpoor as having zero shortfall), expressed as a percentage of the poverty line. This measure reflects the depth of poverty as well as its incidence.
	1.3 Share of poorest quintile in national consumption	Percentage share of consumption or income that accrues to the poorest fifth (bottom quintile) of the population.
<b>Target 1.B:</b> Achieve full and productive employment and decent work for all, including women and young people	1.4 Growth rate of gross domestic product (GDP) per person employed	Growth rate of output per unit of labor input.  Output is measured as "value added", which is the total production value minus the value of intermediate inputs, such as raw materials, semi-finished products, services purchased, and energy inputs. Value added, called "GDP" in the national accounts, represents the compensation for input of services from capital (including depreciation) and labor directly engaged in the production.  Labor input is defined as persons employed.
	1.5 Employment-to-population ratio	Proportion of a country's working-age population that is employed.  Employment is defined as persons above a specified age who performed any work at all, in the reference period, for pay or profit (or pay in kind), or were temporarily absent from a job for such reasons as illness, maternity or parental leave, holiday, training, or industrial dispute. Unpaid family workers who work for at least 1 hour should be included in the count of employment, although many countries use a higher hour limit in their definition.  For most countries, the working-age population is defined as persons aged 15 years and older, although this may vary slightly from country to country.
	1.6 Proportion of employed people living below \$1 (PPP) per day	Share of individuals who are employed, but nonetheless live in a household whose members are estimated to be living below the international poverty line of \$1.25 a day, measured at 2005 international prices, adjusted for PPP.

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Goals and Targets	Indicators for Monitoring Progress	Definition
	1.7 Proportion of own-account and contributing family workers in total employment	<p>Own-account workers are workers who, working on their own account or with one or more partners, hold the type of jobs defined as self-employment jobs (i.e., remuneration is directly dependent upon the profits derived from the goods and services produced), and have not engaged on a continuous basis any employee to work for them during the reference period.</p> <p>Contributing family workers, also known as unpaid family workers, are workers who are self-employed, as own-account workers in a market-oriented establishment operated by a related person living in the same household.</p>
<p><b>Target 1.C:</b> Halve, between 1990 and 2015, the proportion of people who suffer from hunger</p>	1.8 Prevalence of underweight children under-five years of age	<p>Percentage of children aged 0–59 months whose weight for age are less than two standard deviations below the median weight for age of the international reference population.</p> <p>The international reference population, often referred to as the NCHS/WHO reference population, was formulated by the National Center for Health Statistics (NCHS) as a reference for the United States and later adopted by the World Health Organization (WHO).</p> <p>The NCHS/WHO reference standard represents the distribution of height and weight by age and sex in a well-nourished population. In a well-nourished population, 2.3% of children fall below minus two standard deviations.</p> <p>Percentage of children under 5 years old that are underweight = (number of children under age 5 that fall below minus two standard deviations from the median weight for age of the NCHS/WHO standard [moderate and severe])*100/ total number of children under age 5 that were weighted.</p>
	1.9 Proportion of population below minimum level of dietary energy consumption	Percentage of the population that is undernourished or food-deprived, whose food intake falls below the minimum level of dietary energy requirements.
<b>Goal 2: Achieve universal primary education</b>		
<p><b>Target 2.A:</b> Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling</p>	2.1 Net enrollment ratio in primary education	Number of children of official primary school age (according to International Standard Classification of Education [ISCED97]) who are enrolled in primary education as a percentage of the total children of the official primary school age population. Total net primary enrollment rate also includes children of primary school age enrolled in secondary education. Where more than one system of primary education exists within the country, the most widespread or common structure is used for determining the official school age group.
	2.2 Proportion of pupils starting grade 1 who reach last grade of primary	<p>Percentage of a cohort of pupils enrolled in grade 1 of the primary level of education in a given school year who are expected to reach the last grade of primary school, regardless of repetition.</p> <p>Primary education is defined by ISCED97 as programs normally designed on a unit or project basis to give pupils a sound basic education in reading, writing, and mathematics along with an elementary understanding of other subjects such as history, geography, natural science, social science, art, and music.</p>
	2.3 Literacy rate of 15–24-year-olds, women and men	Percentage of the population aged 15–24 years who can both read and write with understanding a short, simple statement on everyday life.

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Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Goal 3: Promote gender equality and empower women</b>		
<b>Target 3.A:</b> Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015	3.1 Ratio of girls to boys in primary, secondary, and tertiary education	Ratio of the number of female students enrolled at primary, secondary, and tertiary levels of education to the number of male students in each level. To standardize the effects of the population structure of the appropriate age groups, the gender parity index (GPI) of the gross enrollment ratio (GER) for each level of education is used.  The GER is the number of pupils enrolled in a given level of education, regardless of age, expressed as a percentage of the population in the theoretical age group for the same level of education.
	3.2 Share of women in wage employment in the nonagricultural sector	Number of women in nonagricultural paid employment divided by the total number of persons in paid employment in the nonagricultural sector. It is expressed as a percentage of total wage employment in that same sector.
	3.3 Proportion of seats held by women in national parliament	Number of seats held by women members in single or lower chambers of national parliaments, expressed as a percentage of all occupied seats.  National parliaments can be bicameral or unicameral. This indicator covers the single chamber in unicameral parliaments and the lower chamber in bicameral parliaments. It does not cover the upper chamber of bicameral parliaments. Seats are usually won by members in general parliamentary elections. Seats may also be filled by nomination, appointment, indirect election, rotation of members, and by election.  Seats refer to the number of parliamentary mandates or the number of members of parliament.
<b>Goal 4: Reduce child mortality</b>		
<b>Target 4.A:</b> Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate	4.1 Under-five mortality rate	Probability (expressed as a rate per 1,000 live births) of a child born in a specified year, dying before reaching the age of 5, if subject to current age-specific mortality rates.
	4.2 Infant mortality rate	Probability (expressed as a rate per 1,000 live births) of a child born in a specified year, dying before reaching the age of 1 year, if subject to current age-specific mortality rates.
	4.3 Proportion of 1-year-old children immunized against measles	Percentage of children under 1 year of age who have received at least one dose of a measles vaccine.
<b>Goal 5: Improve maternal health</b>		
<b>Target 5.A:</b> Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	5.1 Maternal mortality ratio	Ratio of the number of maternal deaths during a given time period per 100,000 live births during the same time-period.  A maternal death refers to a female death from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy.
	5.2 Proportion of births attended by skilled health personnel	Percentage of deliveries attended by health personnel trained in providing life-saving obstetric care, including giving the necessary supervision, care, and advice to women during pregnancy, labor, and the postpartum period; conducting deliveries on their own; and caring for newborns. Traditional birth attendants, even if they receive a short training course, are not included.

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Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 5.B:</b> Achieve, by 2015, universal access to reproductive health	5.3 Contraceptive prevalence rate	Percentage of women married or in union aged 15–49 years who are currently using, or whose sexual partner is using, at least one method of contraception, regardless of the method used.
	5.4 Adolescent birth rate	Annual number of births to women 15–19 years of age per 1,000 women in that age group. It represents the risk of childbearing among adolescent women 15–19 years of age. Also referred to as the age-specific fertility rate for women aged 15–19 years.
	5.5 Antenatal care coverage (at least one visit and at least four visits)	For coverage of at least one visit, refers to the percentage of women aged 15–49 years with a live birth in a given time period that received antenatal care provided by a skilled health personnel (doctors, nurses, or midwives) at least once during pregnancy, as a percentage of women aged 15–49 years with a live birth in a given time period.  For coverage of at least four visits, refers to the percentage of women aged 15–49 years with a live birth in a given time period that received antenatal care four or more times from any provider (whether skilled or unskilled), as a percentage of women aged 15–49 years with a live birth in a given time period.
	5.6 Unmet need for family planning	Women with unmet need are those who are fecund and sexually active women but are not using any method of contraception, and report not wanting any more children or wanting to delay the next child. It is expressed as a percentage of women aged 15–49 years who are married or in a consensual union.  The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior.  For MDG monitoring, unmet need is expressed as a percentage based on women who are married or in a consensual union.
<b>Goal 6: Combat HIV/AIDS, malaria, and other diseases</b>		
<b>Target 6.A:</b> Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1 HIV prevalence among population aged 15–24 years	Estimated number of persons aged 15–24 years living with HIV divided by the population aged 15–24 years. HIV prevalence among population aged 15–49 years is the percentage of individuals aged 15–49 years living with HIV.  Human Immunodeficiency Virus (HIV) is a virus that weakens the immune system, ultimately leading to AIDS, the acquired immunodeficiency syndrome. HIV destroys the body's ability to fight off infection and disease, which can ultimately lead to death.
	6.2 Condom use at last high-risk sex aged 15–24 years	Percentage of young men and women to number of respondents aged 15–24 reporting the use of a condom during sexual intercourse with a non-cohabiting, non-marital sexual partner in the last 12 months.
	6.3 Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS	Percentage of young persons aged 15–24 years who correctly identify the two major ways of preventing the sexual transmission of HIV (using condoms and limiting sex to one faithful, uninfected partner), who reject the two most common local misconceptions about HIV transmission and who know that a healthy-looking person can transmit HIV.
	6.4 Ratio of school attendance of orphans to school attendance of nonorphans aged 10–14 years	Ratio of the current school attendance rate of children aged 10–14 whose biological parents have died to the current school attendance rate of children aged 10–14 whose parents are still alive, and who currently live with at least one biological parent.
<b>Target 6.B:</b> Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs	Percentage of adults and children with advanced HIV infection currently receiving antiretroviral therapy according to nationally approved treatment protocols among the estimated number of people with advanced HIV infection.

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 6.C:</b> Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	6.6 Incidence and death rates associated with malaria	Incidence refers to the number of reported new cases of malaria per 100,000 people each year; death rate refers to the number of deaths caused by malaria per 100,000 people each year.
	6.7 Proportion of children under 5 years old sleeping under insecticide-treated bednets	Percentage of children aged 0–59 months who slept under an insecticide treated mosquito net the night prior to the survey.
	6.8 Proportion of children under 5 with fever who are treated with appropriate antimalarial drugs	Percentage of children aged 0–59 months with fever in the 2 weeks prior to the survey who received any antimalarial medicine.
	6.9 Incidence, prevalence, and death rates associated with tuberculosis (TB)	Incidence is the estimated number of new TB cases arising in 1 year per 100,000 population. All forms of TB are included, as are cases in people with HIV. Prevalence rate is the number of cases of TB (all forms) in a population at a given point in time (sometimes referred to as point prevalence). It reflects the number of cases per 100,000 population. Estimates include cases of TB in people with HIV. Death rate is the estimated number of deaths due to TB in a given time period. It is expressed as the number of deaths per 100,000 population per year. Deaths from all forms of TB are included. Deaths from TB in people with HIV are included.
	6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course (DOTS)	Case detection, as used here, means that TB is diagnosed in a patient and is reported within the national surveillance system, and then to WHO. The case detection rate is the percentage of estimated new infectious tuberculosis cases detected under the internationally recommended tuberculosis control strategy DOTS. Success rate is the proportion of new smear-positive TB cases registered under DOTS in a given year that successfully completed treatment, whether with bacteriologic evidence of success (cured) or without (treatment completed). At the end of treatment, each patient is assigned one of the following six mutually exclusive treatment outcomes: cured; completed; died; failed; defaulted; and transferred out with outcome unknown. The proportions of cases assigned to these outcomes, plus any additional cases registered for treatment but not assigned to an outcome, add up to 100% of cases registered.
<b>Goal 7: Ensure environmental sustainability</b>		
<b>Target 7.A:</b> Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources	7.1 Proportion of land area covered by forest	Area of forest as a share of total land area, where land area is the total country area excluding the area of inland water bodies (major rivers, lakes, and water reservoirs). Forest is land spanning more than 0.5 hectare with trees higher than 5 meters and a canopy cover of more than 10%; or trees able to reach these thresholds <i>in situ</i> ; and does not include land that is predominantly under agricultural or urban land use.
	7.2 Carbon dioxide (CO <sub>2</sub> ) emissions, total, per capita and per \$1 GDP (PPP)	<p>Estimates of total carbon dioxide (CO<sub>2</sub>) emissions include anthropogenic emissions less removal by sinks of carbon dioxide (CO<sub>2</sub>). The term “total” implies that emissions from all national activities are considered. The typical sectors for which CO<sub>2</sub> emissions/removals are estimated are energy, industrial processes, agriculture, waste, and the sector of land use, land-use change and forestry (LULUCF).</p> <p>CO<sub>2</sub> emissions/removals by land use, land-use change, and forestry are often known with much less certainty than emissions from the other sectors, or emissions/removals estimates for LULUCF may not be available at all. In such cases, “total” emissions can be calculated as the sum of emissions for the sectors of energy, industrial processes, agriculture, and waste. Carbon emissions per capita are measured as the total amount of CO<sub>2</sub> emitted by the country divided by the population of the country.</p> <p>CO<sub>2</sub> emissions per \$1 GDP (PPP) are total CO<sub>2</sub> emissions divided by the total value of GDP expressed in PPP.</p>

continued.

Goals and Targets	Indicators for Monitoring Progress	Definition
	7.3 Consumption of ozone-depleting substances	Sum of the national annual consumption in weighted tons of the individual substances in the group of ozone-depleting substances multiplied by their ozone-depleting potential. Ozone-depleting substance is any substance containing chlorine or bromine that destroys the stratospheric layer, which absorbs most of the biologically damaging ultraviolet radiation.
	7.4 Proportion of fish stocks within safe biological limits	Percentage of fish stocks of which abundance is at or above the level that produces the maximum sustainable yield.
	7.5 Proportion of total water resources used	Proportion of total renewable water resources withdrawn is the total volume of groundwater and surface water withdrawn from their sources for human use (in the agricultural, domestic, and industrial sectors), expressed as a percentage of the total volume of water available annually through the hydrological cycle (total actual renewable water resources). Water resources and water withdrawal are terms understood as freshwater resources and freshwater withdrawal.
<b>Target 7.B:</b> Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	7.6 Proportion of terrestrial and marine areas protected	Protected area is an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.
	7.7 Proportion of species threatened with extinction	<p>The indicator Changes in the Status of Species measures the change in threatened status of species in their natural habitat, based on population and range size and trends, as quantified by the categories of the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species™ (hereafter 'IUCN Red List'; <a href="http://www.redlist.org">http://www.redlist.org</a>).</p> <p>The IUCN Red List Index (IUCN RLI) uses data from the IUCN Red List to show changes over time in the overall threat status (relative projected extinction risk) of representative sets of species.</p> <p>The IUCN Red List is widely recognized as the most authoritative and objective method of classifying the status of species. It uses quantitative criteria based on population size, rate of decline, and area of distribution to assign species to the following categories of relative extinction risk: Least Concern, Near Threatened, Vulnerable, Endangered, Critically Endangered, Extinct in the Wild, Extinct, and Data Deficient (IUCN 2001).</p>
<b>Target 7.C:</b> Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8 Proportion of population using an improved drinking water source	Percentage of the population who use any of the following types of water supply for drinking: piped water into dwelling, plot, or yard; public tap/standpipe; borehole/tube well; protected dug well; protected spring; rainwater collection and bottled water (if a secondary available source is also improved). It does not include unprotected well, unprotected spring, water provided by carts with small tanks/drums, tanker truck-provided water and bottled water (if secondary source is not an improved source) or surface water taken directly from rivers, ponds, streams, lakes, dams, or irrigation channels.
	7.9 Proportion of population using an improved sanitation facility	Percentage of the population with access to facilities that hygienically separate human excreta from human contact. Improved facilities include flush/pour flush toilets or latrines connected to a sewer, septic tank, or pit, ventilated improved pit latrines, pit latrines with a slab or platform of any material which covers the pit entirely, except for the drop hole and composting toilets/latrines. Unimproved facilities include public or shared facilities of an otherwise acceptable type, flush/pour-flush toilets or latrines which discharge directly into an open sewer or ditch, pit latrines without a slab, bucket latrines, hanging toilets or latrines which directly discharge in water bodies or in the open and the practice of open defecation in the bush, field or bodies of water.

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Goals and Targets	Indicators for Monitoring Progress	Definition
<p><b>Target 7.D:</b> By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers</p>	<p>7.10 Proportion of urban population living in slums</p>	<p>Proportion of urban population living in slum households defined as a group of individuals living under the same roof lacking one or more of the conditions below:</p> <ul style="list-style-type: none"> <li>• access to improved water</li> <li>• access to improved sanitation</li> <li>• sufficient living area</li> <li>• durability of housing</li> <li>• security of tenure</li> </ul> <p>However, since information on secure tenure is not available for most of the countries, only the first four indicators are used to define slum households, and then to estimate the proportion of urban population living in slums.</p> <p>Durability of housing: A house is considered “durable” if it is built on a non-hazardous location and has a structure permanent and adequate enough to protect its inhabitants from the extremes of climatic conditions, such as rain, heat, cold and humidity.</p> <p>Sufficient living area: A house is considered to provide a sufficient living area for the household members if not more than three people share the same habitable (minimum of four square meters) room.</p> <p>Secure tenure: Secure tenure is the right of all individuals and groups to effective protection by the State against arbitrary unlawful evictions. People have secure tenure when there is evidence of documentation that can be used as proof of secure tenure status or when there is either de facto or perceived protection against forced evictions.</p>
<p><b>Goal 8: Develop a global partnership for development</b> <i>Some of the indicators listed below are monitored separately for the least developed countries, Africa, landlocked developing countries, and small island developing states.</i></p>		
<p><b>Target 8.A:</b> Develop further an open, rule-based, predictable, non-discriminatory trading and financial system</p> <p>Includes a commitment to good governance, development, and poverty reduction—both nationally and internationally</p>	<p>Official Development Assistance (ODA)</p> <p>8.1 Net ODA, total and to the least developed countries, as percentage of OECD/Development Assistance Committee (OECD/DAC) donors' gross national income</p>	<p>Net ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector, with promotion of economic development and welfare as the main objective and at concessional financial terms.</p> <p>Donors' gross national income (GNI) at market prices is the sum of gross primary incomes receivable by resident institutional units and sectors. GNI at market prices was called gross national product (GNP) in the 1953 System of National Accounts (SNA). In contrast to GDP, GNI is a concept of income (primary income) rather than value added.</p>

*continued.*

Goals and Targets	Indicators for Monitoring Progress	Definition
<p><b>Target 8.B:</b> Address the special needs of the least developed countries</p> <p>Includes: tariff and quota free access for the least developed countries' exports; enhanced program of debt relief for heavily indebted poor countries (HIPC) and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction</p>	<p>8.2 Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water, and sanitation)</p>	<p>ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms.</p> <p>Basic education comprises primary education, basic life skills for youth and adults, and early childhood education. Primary health care includes basic health care, basic health infrastructure, basic nutrition, infectious disease control, health education, and health personnel development.</p>
	<p>8.3 Proportion of bilateral official development assistance of OECD/DAC donors that is untied</p>	<p>ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector, with promotion of economic development and welfare as the main objectives, and offered at concessional financial terms.</p> <p>Untied bilateral ODA is assistance from country to country for which the associated goods and services may be fully and freely procured in substantially all countries.</p>
	<p>8.4 ODA received in landlocked developing countries as a proportion of their gross national incomes</p>	<p>ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms.</p> <p>Recipient countries' GNI at market prices is the sum of gross primary incomes receivable by resident institutional units and sectors. GNI at market prices was called GNP in the 1953 SNA. In contrast to GDP, GNI is a concept of income (primary income) rather than value added.</p>
<p><b>Target 8.C:</b> Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and the outcome of the twenty-second special session of the General Assembly)</p>	<p>8.5 ODA received in small island developing States as a proportion of their gross national incomes</p>	<p>ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms.</p> <p>Recipient countries' GNI at market prices is the sum of gross primary incomes receivable by resident institutional units and sectors. GNI at market prices was called GNP in the 1953 SNA. In contrast to GDP, GNI is a concept of income (primary income) rather than value added.</p>
	<p>Market Access</p> <p>8.6 Proportion of total developed country imports (by value and excluding arms) from developing countries and least developed countries, admitted free of duty</p>	<p>Proportion of duty free imports (excluding arms) into developed countries from developing and least developed countries.</p>
	<p>8.7 Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries</p>	<p>Average tariffs imposed by developed countries on subsets of selected items (agricultural products, textile, and clothing exports) that are deemed to be of interest to developing countries.</p> <p>Average tariffs are the simple average of all applied ad valorem tariffs (tariffs based on the value of the import) applicable to the bilateral imports of developed countries. Agricultural products comprise plant and animal products, including tree crops but excluding timber and fish products. Clothing and textiles include natural and synthetic fibers and fabrics and articles of clothing made from them.</p>

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Goals and Targets	Indicators for Monitoring Progress	Definition
<b>Target 8.C:</b> <i>(continued)</i>	8.8 Agricultural support estimate for OECD countries as a percentage of their gross domestic product	<p>Agricultural support is the annual monetary value of all gross transfers from taxpayers and consumers, both domestic and foreign (in the form of subsidies arising from policy measures that support agriculture), net of the associated budgetary receipts, regardless of their objectives and impacts on farm production and income, or consumption of farm products.</p> <p>Total support estimate for agricultural products represents the overall taxpayer and consumer costs of agricultural policies. When expressed as a percentage of GDP, the total support estimate is an indicator of the cost to the economy as a whole.</p>
	8.9 Proportion of ODA provided to help build trade capacity	<p>ODA comprises grants or loans to developing countries and territories on the OECD/DAC list of aid recipients that are undertaken by the official sector with promotion of economic development and welfare as the main objective and at concessional financial terms (if a loan, a grant element of at least 25%). Technical cooperation is included. Grants, loans, and credits for military purposes are excluded. Also excluded is aid to more advanced developing and transition countries as determined by DAC.</p>
<b>Target 8.D:</b> Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Debt Sustainability  8.10 Total number of countries that have reached their HIPC decision points and number that have reached their HIPC completion points (cumulative)	<p>The indicator is the number of heavily indebted poor countries that have qualified for HIPC initiative assistance and that have reached their decision (or completion) point under the enhanced HIPC initiative.</p> <p>Countries reach HIPC decision point if they have a track record of macroeconomic stability, have prepared an Interim Poverty Reduction Strategy through a participatory process, and have cleared or reached an agreement on a process to clear the outstanding arrears to multilateral creditors. The amount of debt relief necessary to bring countries' debt indicators to HIPC thresholds is calculated, and countries begin receiving debt relief.</p> <p>Countries reach HIPC completion point if they maintain macroeconomic stability under a Poverty Reduction and Growth Facility-supported program, successfully complete key structural and social reforms agreed on at the decision point, and implement satisfactorily the Poverty Reduction Strategy for one year. The country then receives the bulk of debt relief under the HIPC initiative without any further policy conditions.</p>
	8.11 Debt relief committed under HIPC and Multilateral Debt Relief Initiative (MDRI) Initiatives	<p>Debt relief is committed under the HIPC Initiative when a country reaches its decision point. It is calculated as the amount needed to bring the net present value (NPV) of the country's debt level to the thresholds established by the HIPC Initiative (150% of exports, or in certain cases 250% of fiscal revenues).</p> <p>MDRI assistance is the net present value of debt relief from four multilateral agencies—the International Development Association, International Monetary Fund (IMF), African Development Fund, and Inter-American Development Bank—delivered in full to countries having reached the completion point under the enhanced HIPC Initiative.</p>
	8.12 Debt service as a percentage of export of goods and services	<p>Debt service is the sum of principal repayments and interest actually paid in foreign currency, goods, or services. The series differs from the standard debt-to-export ratios. It covers only long-term public and publicly guaranteed debt and repayments (repurchases and charges) to the IMF. IMF repurchases are total repayments of outstanding drawings from the general resources account during the year specified, excluding repayments due in the reserve tranche. Exports of goods, services, and income are the sum of goods (merchandise) exports, exports of (nonfactor) services, and income (factor) receipts and do not include workers' remittances.</p>

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Goals and Targets	Indicators for Monitoring Progress	Definition
<p><b>Target 8.E:</b> In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries</p>	<p>8.13 Proportion of population with access to affordable essential drugs on a sustainable basis</p>	<p>Percentage of population that has access to a minimum of 20 most essential drugs.</p>
<p><b>Target 8.F:</b> In cooperation with the private sector, make available the benefits of new technologies, especially information and communications</p>	<p>8.14 Telephone lines per 100 population</p>	<p>A fixed telephone line connects the subscriber's terminal equipment to the public switched network and has a dedicated port in the telephone exchange equipment. This term is synonymous with the term main station or direct exchange line that is commonly used in telecommunication documents. It may not be the same as an access line or a subscriber. The number of Integrated Services Digital Network channels should be included. Fixed wireless subscribers should also be included. If they are not included, this is specified in a note.</p>
	<p>8.15 Cellular subscriptions per 100 population</p>	<p>Subscriptions to a public mobile telephone service and provides access to Public Switched Telephone Network using cellular technology, including number of prepaid SIM cards active during the past three months. This includes both analog and digital cellular systems (IMT-2000 Third Generation, 3G) and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems. Subscriptions to public mobile data services, private trunked mobile radio, telepoint or radio paging, and telemetry services should also be excluded. This should include all mobile cellular subscriptions that offer voice communications.</p>
	<p>8.16 Internet users per 100 population</p>	<p>The internet is a linked global network of computers in which users at one computer, if they have permission, can get information from other computers in the network.</p>

## Regional Trends and Tables

Indicator	Definition
<b>PEOPLE</b>	
<b>Population</b>	
Midyear Population	Estimates of the midyear de facto population. De facto population includes all persons physically present in the country during the census day, including foreign, military, and diplomatic personnel and their accompanying household members; and transient foreign visitors in the country or in harbors.
Growth Rates in Population	Number of people added to (or subtracted from) a population in a year because of natural increase and net migration expressed as a percentage of the population at the beginning of the year.
Net International Migration Rate	Number of immigrants minus the number of emigrants over a period, divided by the person-years lived by the population of the receiving country over that period. It is expressed as net number of migrants per 1,000 population.
Urban Population	Population living in urban areas, defined in accordance with the national definition or as used in the most recent population census. Because of national differences in the characteristics that distinguish urban from rural areas, the distinction between urban and rural populations is not amenable to a single definition that would be applicable to all countries. National definitions are most commonly based on size of locality. Population that is not urban is considered rural.
Urban population (as % of total population)	The estimated population living in urban areas at midyear as a percentage of the total midyear population in a country.
Age Dependency Ratio	Ratio of the nonworking-age population to the working-age population. Since countries define working age differently, a straightforward application of the definition will lead to noncomparable data. ADB therefore uses the following UN definition that can be computed directly from an age distribution:  $\frac{\text{Population aged (0–14) + (65 and over) years}}{\text{Population aged (15–64) years}} \times 100$
<b>Labor Force and Employment</b>	
Labor Force Participation Rate	Percentage of the labor force to the working-age population. The labor force is the sum of those in employment and persons who are without paid employment but who are seeking it. The labor force participation rate is a measure of the extent an economy's working-age population is economically active. It provides an indication of the relative size of the supply of labor that is available for the production of goods and services in the economy. It must be noted that definition of working-age population varies across countries.
Unemployment Rate	Percentage of the labor force that is unemployed, i.e., persons who are without work but who are available and actively seeking it. This is probably the best known labor market measure. Together with the employment rate, it provides the broadest indicator of the status of the country's labor market.
Unemployment Rate of 15–24-Year-Olds	Number of unemployed people aged 15–24 years divided by the labor force of the same age group.
Employment in Agriculture	Employment in agriculture that corresponds to division 1 (International Standard of Industrial Classification [ISIC] revision 2), tabulation categories A and B (ISIC revision 3), and category A of ISIC revision 4; includes hunting, forestry, and fishing.
Employment in Industry	Employment in industry that corresponds to divisions 2–5 (ISIC revision 2), tabulation categories C–F (ISIC revision 3), or tabulation categories B–F (ISIC revision 4), and includes mining and quarrying (including oil production); manufacturing; construction; and public utilities (electricity, gas, and water).
Employment in Services	Employment in services that corresponds to divisions 6–9 (ISIC revision 2), tabulation categories G–P (ISIC revision 3), or tabulation categories G–U (ISIC revision 4) and includes wholesale and retail trade and hotels and restaurants; transport, storage, and communications; financing, insurance, real estate, and business services; and community, social, and personal services.
<b>Poverty Indicators</b>	
Proportion of Population below \$2 (PPP) a day	Percentage of the population living on less than \$2 a day at 2005 international prices.
Income Ratio of Highest 20% to Lowest 20%	Income or consumption share that accrues to the richest 20% of the population divided by the income share of the lowest 20% of the population.

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Indicator	Definition
Gini Coefficient/Index	Measure of the degree to which an economy's income distribution diverges from perfect equal distribution. A value of zero (0) implies perfect equality while a value of one (1) implies perfect inequality.
Human Development Index	Composite index of longevity (measured by life expectancy at birth), knowledge (measured by expected years of schooling and mean years of schooling), and decent standard of living (measured by the adjusted per capita income in PPP US\$).
<b>Social Indicators</b>	
Life Expectancy at Birth	Number of years that a newborn is expected to live if prevailing patterns of mortality at the time of its birth are to stay the same throughout its life.
Crude Birth Rate	Ratio of the total number of live births in a given year to the midyear total population, expressed per 1,000 people.
Crude Death Rate	Ratio of the number of deaths occurring within 1 year to the midyear total population, expressed per 1,000 people.
Total Fertility Rate	Number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates.
Primary Education Completion Rate	Percentage of students completing the last year of primary school. It is calculated as the total number of students in the last grade of primary school, minus the number of repeaters in that grade, divided by the total number of children of official graduation age.
Adult Literacy Rate	The percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life. Generally, literacy also encompasses numeracy, the ability to make simple arithmetic calculations.
Primary Pupil-Teacher Ratio	Average number of pupils (students) per teacher at the primary level of education in a given school year. This indicator is used to measure the level of human resources input in terms of number of teachers in relation to the size of the primary pupil population.
Secondary Pupil-Teacher Ratio	Average number of pupils (students) per teacher at the secondary level of education in a given school year. This indicator is used to measure the level of human resources input in terms of number of teachers in relation to the size of the secondary pupil population.
Physicians	Physicians, including generalist and specialist medical practitioners, expressed in terms of 1,000 people.
Hospital Beds	In-patient beds for both acute and chronic care available in public, private, general, and specialized hospitals and rehabilitation centers expressed in terms of 1,000 people.
Number of Adults Living with HIV	All adults, defined as men and women aged 15 and over years old, with HIV infection, whether or not they have developed symptoms of AIDS.
<b>ECONOMY AND OUTPUT</b>	
<b>National Accounts</b>	
Gross Domestic Product	<p>Unduplicated market value of the total production activity of all resident producer units within the economic territory of a country during a given period. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Transfer payments are excluded from the calculation of GDP. GDP can be computed using the production, expenditure, and income approaches.</p> <p>Production-based GDP is the sum of the gross value added by all resident producers in the economy plus any taxes and minus any subsidies not included in the value of the products. Gross value added is the net output of an industry after adding up all outputs and subtracting intermediate inputs.</p> <p>Income-based GDP is the sum of the compensation of employees, mixed income, operating surplus, consumption of fixed capital, and taxes less subsidies on production and imports.</p> <p>Expenditure-based GDP is the sum of private (or household) consumption expenditure, general government consumption expenditure, gross fixed capital formation (private and public investments), changes in inventories, and exports minus imports of goods and services.</p> <p>GDP can be measured at current prices (i.e., the prices of the current reporting period) and constant prices, which are obtained by expressing values in terms of a base period.</p>

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Indicator	Definition
GDP at PPP	Measures obtained by using PPP to convert the GDP into a common currency, and by valuing them at a uniform price level. They are the spatial equivalent of a time series of GDP for a single country expressed at constant prices. At the level of GDP, they are used to compare the economic size of countries.
GDP per Capita at PPP	GDP at PPP divided by the midyear population.
GNI per Capita, Atlas Method	The gross national income (formerly GNP per capita) converted to US dollars using the World Bank Atlas method, divided by the midyear population. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI, calculated in national currency, is usually converted to US dollars at official exchange rates for comparisons across economies, although an alternative rate is used when the official exchange rate is judged to diverge by an exceptionally large margin from the rate actually applied in international transactions. To smooth fluctuations in prices and exchange rates, a special Atlas method of conversion is used by the World Bank. This applies a conversion factor that averages the exchange rate for a given year and the two preceding years, adjusted for differences in rates of inflation between the country, and the G-5 countries (France, Germany, Japan, the United Kingdom, and the United States).
Agriculture Value Added	The gross output of agriculture less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4 where agriculture corresponds to ISIC divisions 1–3 and includes hunting, forestry, and fishing. The gross output of agriculture less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4 where agriculture corresponds to ISIC divisions 1–3 and includes hunting, forestry, and fishing.
Industry Value Added	The gross output of industry sectors less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4 where industry corresponds to ISIC divisions 5–43 and includes mining, manufacturing, construction, electricity, gas, steam, and air conditioning supply.
Services Value Added	The gross output of services sectors less the corresponding value of intermediate consumption. The industrial origin of value added is determined by ISIC revision 4. Services corresponds to ISIC divisions 45–99 and includes wholesale and retail trade, transport and storage, accommodation and food service activities, financial and insurance activities, real estate, and professional and technical services.
Private Consumption Expenditure	Market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased or received as income in kind by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses. The expenditure of nonprofit institutions serving households is also recorded as the consumption of households.
Government Consumption Expenditure	Includes all current outlays on purchases of goods and services (including wages and salaries). It also includes most expenditure on national defense and security, but excludes government military expenditures that are part of public investment.
Gross Domestic Capital Formation	Total value of gross fixed capital formation, changes in inventories, and acquisitions less disposals of valuables. Gross fixed capital formation is the value of acquisitions less disposals of tangible goods such as buildings and intangible goods such as computer software that are intended for use in production during several accounting periods. Changes in inventories are changes in stocks of produced goods and goods for intermediate consumption, and the net increase in the value of work in progress. Valuables are goods such as precious metals and works of art that are acquired in the expectation that they will retain or increase their value over time.
Exports of Goods and Services	Consist of sales, barter, or gifts or grants, of goods and services from residents to nonresidents. The treatment of exports in the SNA is generally identical with that in the balance of payments accounts as described in the Balance of Payments Manual.
Imports of Goods and Services	Consist of purchases, barter, or receipts of gifts or grants, of goods and services by residents from nonresidents. The treatment of imports in the SNA is generally identical with that in the balance of payments accounts as described in the Balance of Payments Manual.
Gross Domestic Saving	Difference between GDP and total consumption, where total consumption is the sum of private consumption expenditure and government consumption expenditure.

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Indicator	Definition
<b>Production</b>	
Agriculture Production Index	Relative level of the aggregate volume of agricultural production for each year in comparison with the base period. It is based on the sum of price-weighted quantities of different agricultural commodities produced after deductions of quantities used as seed and feed weighted in a similar manner. The resulting aggregate represents, therefore, disposable production for any use except as seed and feed.
Manufacturing Production Index	An index covering production in manufacturing. The exact coverage, the weighting system, and the methods of calculation vary from country to country but the divergences are less important than, for example, in the case of price and wage indexes.
<b>MONEY, FINANCE, AND PRICES</b>	
<b>Prices</b>	
Consumer Price Index (CPI)	An index that measures changes in prices against a reference period of a basket of goods and services purchased by households. Based on the purpose of the CPI, different basket of goods and services can be selected. For macroeconomic purposes, a broad based basket is used to represent the relative price movement of household final consumption expenditure.
Food Consumer Price Index	An index that measures the change over time in the general level of prices of food and non-alcoholic beverage items that households acquire, use, or pay for consumption. This is done by measuring the cost of purchasing a fixed basket of consumer food and beverage of constant quality and similar characteristics, with the products in the basket being selected to be representative of households' expenditure during a specified period.
Wholesale Price Index	A measure that reflects changes in the prices paid for goods at various stages of distribution up to the point of retail. It can include prices of raw materials for intermediate and final consumption, prices of intermediate or unfinished goods, and prices of finished goods. The goods are usually valued at purchasers' prices.
Producer Price Index	A measure of the change in the prices of goods and services either as they leave their place of production or as they enter the production process. A measure of the change in the prices received by domestic producers for their outputs or of the change in the prices paid by domestic producers for their intermediate inputs.
GDP Deflator	A measure of the annual rate of price change in the economy as a whole for the period shown obtained by dividing GDP at current prices by GDP at constant prices.
<b>Money and Finance</b>	
Money Supply (M2)	A measure of the money supply in an economy, with broad coverage. In the latest definition of the IMF, Broad Money includes currency in circulation outside depository corporations, deposits in depository corporations (DCs). For some countries, money-holding sectors' deposits in other depository corporations (ODCs) only are included. In other countries, some types of central bank deposits are included in broad money along with money-holding sectors' deposits in ODCs. In addition, some countries' definitions of broad money include deposits of all maturities, whereas other countries' definitions include only those deposits with maturities up to a specified maximum (up to two-year maturity, up to three-year maturity, etc.). In some countries, broad money is defined to include some types of liabilities of nonfinancial corporations. The most prevalent types are deposits in public nonfinancial corporations (typically, savings deposits in the post office) and electronic deposits issued by other nonfinancial corporations (a relatively new type of deposit account in a few countries). For some countries, broad money is defined to include central bank-issued and/or ODC-issued securities other than shares. To qualify as securities other than shares in the Monetary and Financial Statistics Manual methodology, a financial instrument must be tradable in the secondary market. If nontradable, the financial instrument usually is classified as a loan. However, if included in broad money, the nontradable financial instrument should be classified as a deposit.
Interest Rate on Savings Deposits	Rate paid by commercial and similar banks for savings deposits.
Interest Rate on Time Deposits	Rate paid by commercial and similar banks for time deposits.
Lending Interest Rate	Bank rate that usually meets the short- and medium-term financing needs of the private sector. This rate is normally differentiated according to creditworthiness of borrowers and objectives of financing.
Yield on Short-Term Treasury Bills	Rate at which short-term securities are issued or traded in the market.
Domestic Credit Provided by Banking Sector	Includes all credits to various sectors on a gross basis, except credit to the central government, which is net. The banking sector includes monetary authorities, deposit money banks, and other banking institutions for which data are available (including institutions that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Examples of other banking institutions are savings and mortgage loan institutions and building and loan associations..

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Indicator	Definition
Ratio of Bank Nonperforming Loans to Total Gross Loans	Value of nonperforming loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of loan loss provisions). The amount recorded as nonperforming should be the gross value of the loan as recorded in the balance sheet, not just the amount that is overdue.
Stock Market Price Index	Index that measures changes in the prices of stocks traded in the stock exchange. The price changes of the stocks are usually weighted by their market capitalization.
Stock Market Capitalization	The share price times the number of shares outstanding (also known as market value).
<b>Exchange Rates</b>	
Official Exchange Rate	The exchange rate determined by national authorities or the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on the monthly averages (local currency units relative to the US dollar).
Purchasing Power Parity Conversion Factor	Number of units of country B's currency that are needed in country B to purchase the same quantity of an individual good or service, which one unit of country A's currency can purchase in country A.
Price Level Index (PLI)	Ratio of the relevant PPP to the exchange rate. It is expressed as an index on a base of 100. A PLI greater than 100 means that, when the national average prices are converted at exchange rates, the resulting prices tend to be higher on average than prices in the base country (or countries) of the region (and vice versa). At the level of GDP, PLIs provide a measure of the differences in the general price levels of countries. PLIs are also referred to as comparative price levels.
<b>GLOBALIZATION</b>	
<b>Balance of Payments</b>	
Trade in Goods Balance	Difference between exports and imports of goods.
Trade in Services Balance	Difference between exports and imports of services.
Current Account Balance	Sum of net exports of goods, services, net income, and net current transfers.
Workers' Remittances and Compensation of Employees, Receipts	Consist of: (1) Current transfers from migrant workers who are residents of the host country to recipients in their country of origin. To count as resident, the workers must have been living in the host country for more than a year. (2) Compensation of employees of migrants who have lived in the host country for less than a year. (3) Migrants' transfers defined as the net worth of migrants who are expected to remain in the host country for more than 1 year that is transferred from one country to another at the time of migration.
Foreign Direct Investment	Refers to net inflows of investment to acquire a lasting management interest (10% or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.
<b>External Trade</b>	
Merchandise Exports/Imports	Covers all movable goods, with a few specified exceptions, the ownership of which changes between a resident and a foreigner. For merchandise exports, it represents the value of the goods and related distributive services at the customs frontier of the exporting economy, i.e., the free-on-board value. Merchandise imports, on the other hand, are reported in cost, insurance, and freight values.
Trade in Goods	Sum of merchandise exports and merchandise imports.
<b>International Reserves</b>	
International Reserves	Total holdings by monetary authorities (central banks, currency boards, exchange stabilization funds, and treasuries to the extent that they perform similar functions) of gold, special drawing rights (SDRs), reserve positions in the IMF, and foreign exchange. For purposes of comparability, the regional table on international reserves values gold holdings at London market prices, unless otherwise specified. SDRs are unconditional international reserve assets created by the IMF, whereas reserve positions are unconditional assets arising from countries' reserve assets subscriptions to the IMF, from the IMF's use of members' currencies, and from IMF borrowings. Foreign exchange is defined as monetary authorities' claims on foreigners in the form of bank deposits, treasury bills, short- and long-term government securities, and other claims usable in the event of a balance of payments deficit, including nonmarketable claims arising from intercentral bank and intergovernmental arrangements, without regard to whether the claim is denominated in the currency of the debtor or the creditor.
Ratio of International Reserves to Imports	International reserves outstanding at the end of the year as a ratio of imports of goods from the balance of payments during the year, where imports of goods are expressed in terms of monthly average. It is a useful measure for reserve needs for countries with limited access to capital markets, and comparison across a wide range of countries.

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Indicator	Definition
<b>Capital Flows</b>	
Official Flows	<p>Net flows of long-term public and publicly guaranteed debt from official creditors and grants, including technical cooperation grants.</p> <p>Public and publicly guaranteed debt comprises long-term external obligations of public debtors, including the national government, political subdivisions (or an agency of either), and autonomous public bodies, and external obligations of private debtors that are guaranteed for repayment by a public entity.</p> <p>Grants are defined as legally binding commitments that obligate a specific value of funds available for disbursement for which there is no repayment requirement.</p> <p>Technical cooperation grants include free-standing technical cooperation grants, which are intended to finance the transfer of technical and managerial skills or technology for the purpose of building up general national capacity without reference to any specific investment projects; and investment-related technical cooperation grants, which are provided to strengthen the capacity to execute specific investment projects.</p>
Net Private Flows	<p>Sum of net foreign direct investment, portfolio equity flows, net flows of long-term public and publicly guaranteed debt from private creditors, and net flows of total private nonguaranteed debt.</p> <p>Foreign direct investments are the net inflows of investment to acquire a lasting management interest (10% or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors.</p> <p>Portfolio equity includes net inflows from equity securities other than those recorded as direct investment and including shares, stocks, depository receipts (American or global), and direct purchases of shares in local stock markets by foreign investors.</p> <p>Public and publicly guaranteed debt from private creditors include bonds that are either publicly issued or privately placed; commercial bank loans from private banks and other private financial institutions; and other private credits from manufacturers, exporters, and other suppliers of goods, and bank credits covered by a guarantee of an export credit agency. Net flows (or net lending or net disbursements) received by the borrower during the year are disbursements minus principal repayments.</p> <p>For (a) Nonguaranteed long-term commercial bank loans from private banks and other private financial institutions; and (b) Nonguaranteed long-term debt from bonds that are privately placed, net flows (or net lending or net disbursements) received by the borrower during the year are disbursements minus principal repayments.</p>
Aggregate Net Resource Flows	Sum of net official and private capital flows. Net flow is disbursements less principal repayments.
<b>External Indebtedness</b>	
Total External Debt	Debt owed to nonresidents repayable in foreign currency, goods, or services. It is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt.
External Debt as Percent of Exports of Goods and Services	Total external debt as a percentage of exports of goods and services (excluding workers' remittances).
Total Debt Service Paid	The sum of principal repayments and interest actually paid in foreign currency, goods, or services on long-term debt, interest paid on short-term debt, and repayments (repurchases and charges) to the IMF.
Total Debt Service Paid as Percent of Exports of Goods and Services and Income	Total debt service as a percentage of exports of goods and services (excluding workers' remittances).
<b>Tourism</b>	
International Tourist Arrivals	The number of tourists (overnight visitors) who travel to a country other than in which they usually reside, and outside their usual environment, for a period not exceeding 12 months and whose main purpose of visit is other than the activity remunerated from within the country visited. In some cases, data may also include same day visitors when data on overnight visitors are not available separately. Data refer to the number of arrivals and not to the number of persons.

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Indicator	Definition
International Tourism, Receipts	The receipts earned by a destination country from inbound tourism and covering all tourism receipts resulting from expenditures made by visitors from abroad. These include lodging, food and drinks, fuel, transport in the country, entertainment, shopping, etc. This concept includes receipts generated by overnight as well as by same-day trips. It excludes, however, the receipts related to international transport contracted by residents of the other countries (for instance ticket receipts from foreigners travelling with a national company).
<b>TRANSPORT, ELECTRICITY, AND COMMUNICATIONS</b>	
<b>Transport</b>	
Roads, Total Network	Covers motorways, highways, main or national roads, secondary or regional roads, and all other roads in a country; measured in kilometers.
Road Density	Total road network (measured in kilometers) of a country divided by its land area (expressed in thousand square kilometers).
Paved Roads	Roads surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete, or with cobblestones.
Access to an All-Season Road	Measure of the number of rural people who live within 2 kilometers (typically equivalent to a 20-minute walk) of an all-season road as a proportion of the total rural population. An all-season road is a road that is motorable all year by the prevailing means of rural transport (often a pick-up or truck that does not have four-wheel-drive). Predictable interruptions of short duration during inclement weather (e.g., heavy rainfall) are accepted, particularly on low volume roads.
Motor Vehicles	Include cars, buses, and freight vehicles but not two-wheelers.
Vehicular Fatalities	Persons immediately killed or dying within 30 days as a result of a vehicular injury or accident.
Injury Accident	Any accident involving at least one road vehicle in motion on a public road or private road that the public has right of access to, resulting in at least one person injured or killed.
Rail Lines	Length of railway route available for train service (measured in kilometers), irrespective of the number of parallel tracks.
Rail Network	Length of rail lines divided by the land area (in square kilometers).
<b>Electricity</b>	
Electricity Production	Total amount of electricity generated by a power plant. It includes own-use electricity, as well as transmission and distribution losses.
Sources of Electricity	Electricity is produced as primary as well as secondary energy. Primary electricity is obtained from natural sources such as hydro, wind, solar, tide, and wave power. Secondary electricity is produced from the heat of nuclear fission of nuclear fuels, from geothermal heat and solar thermal heat, and by burning primary combustible fuels such as coal, natural gas, oil and renewables and wastes. After electricity is produced, it is distributed to final consumers through national or international transmission and distribution grids.
Electric Power Consumption Per Capita	Measure of the production of power plants and combined heat and power plants less transmission, distribution, and transformation losses and own use by heat and power plants, divided by midyear population.
Household Electrification Rate	Percentage of households with an electricity connection.
<b>Communications</b>	
Fixed Telephone Lines	<i>Please see MDG 8.14.</i>
Mobile Cellular Telephone Subscriptions	<i>Please see MDG 8.15.</i>
Fixed (wired) Broadband Internet Subscriptions	Subscriptions to high-speed access to the public Internet (a TCP/IP connection), at downstream speeds equal to, or greater than, 256 kbit/s. This can include for example cable modem, DSL, fibre-to-the-home/building and other fixed (wired) broadband subscriptions.
<b>ENERGY AND ENVIRONMENT</b>	
<b>Energy</b>	
GDP per Unit of Energy Use	The ratio of GDP per kilogram of oil equivalent of energy use with GDP converted to 2005 constant international dollars using PPP rates. An international dollar has the same purchasing power over GDP as a US dollar has in the United States.

continued.

Indicator	Definition
Energy Production	Forms of primary energy—petroleum (crude oil, natural gas liquids, and oil from nonconventional sources); natural gas; solid fuels (coal, lignite, and other derived fuels); and combustible renewables and waste—and primary electricity, all converted into oil equivalents. Primary electricity is electricity generated by nuclear, hydro, wind, and solar power.
Energy Use	Usage of primary energy before its transformation to other end-use fuels, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport.
Energy Imports, Net	Estimated as energy use less production, both measured in oil equivalents.
<b>Environment</b>	
Agricultural Land/Area	Land area that is arable, under permanent crops, and under permanent meadows and pastures.
Arable Land	Land under temporary agricultural crops (multiple-cropped areas are counted only once), temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than 5 years). The abandoned land resulting from shifting cultivation is not included. Data for arable land are not meant to indicate the amount of land that are potentially cultivable.
Permanent Cropland	Land cultivated with long-term crops which do not have to be replanted for several years (such as cocoa and coffee); land under trees and shrubs producing flowers, such as roses and jasmine; and nurseries (except those for forest trees, which should be classified under "forest"). Permanent meadows and pastures are excluded from land under permanent crops.
Deforestation Rate	Permanent conversion of natural forest area into other uses, including shifting cultivation, permanent agriculture, ranching, settlements, and infrastructure development. Deforested areas do not include areas logged but intended for regeneration or areas degraded by fuelwood gathering, acid precipitation, or forest fires. A negative rate indicates reforestation or increase in forest area.
Nitrous Oxide Emissions	Emissions from agricultural biomass burning, industrial activities, and livestock management.
Methane Emissions	Emissions from human activities such as agriculture and from industrial methane production.
Consumption of Ozone-Depleting Chlorofluorocarbons	Sum of the consumption of the weighted tons of the individual substances in the group metric tons of the individual substance (defined in the Montreal Protocol on substances that deplete the ozone layer) multiplied by its ozone-depleting potential.
Organic Water Pollutant Biochemical Oxygen Demand (BOD) Emissions	The amount of oxygen (measured as BOD) that bacteria in water will consume in breaking down waste, a standard water treatment test for the presence of organic pollutants. Emissions per worker are total emissions of organic water pollutants divided by the number of industrial workers.
<b>GOVERNMENT AND GOVERNANCE</b>	
<b>Government Finance</b>	
Fiscal Balance	Difference between total revenue (including grants) and total expenditure (including net lending). This provides a picture of the overall financial position of the government. When the difference is positive, then the fiscal position is in surplus; otherwise, it is in deficit.
Tax Revenue	Compulsory transfers to the government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue.
Total Government Revenue	Includes current and capital revenues. Current revenue is the revenue accruing from taxes, as well as all current nontax revenues except transfers received from foreign governments and international institutions. Major items of nontax revenue include receipts from government enterprises, rents and royalties, fees and fines, forfeits, private donations, and repayments of loans properly defined as components of net lending. Capital revenue constitutes the proceeds from the sale of nonfinancial capital assets.
Total Government Expenditure	Sum of current and capital expenditures. Current expenditure comprises purchases of goods and services by the central government, transfers to noncentral government units and to households, subsidies to producers, and interest on public debt. Capital expenditure, on the other hand, covers outlays for the acquisition or construction of capital assets and for the purchase of intangible assets, as well as capital transfers to domestic and foreign recipients. Loans and advances for capital purposes are also included.
Government Expenditure on Education	Consists of expenditure by government to provide education services at all levels.
Government Expenditure on Health	Consists of expenditure by government to provide medical products, appliances, and equipment; outpatient services; hospital services; public health services; among others.
Government Expenditure on Social Security and Welfare	Consists of expenditure by government to provide benefits in cash or in kind to persons who are sick, fully or partially disabled, of old age, survivors, or unemployed, among others.

continued.

Indicator	Definition
<b>Governance</b>	
Cost of Business Start-Up Procedure	Cost to register a business normalized by presenting it as a percentage of GNI per capita. It includes all official fees and fees for legal or professional services if such services are required by law. Fees for purchasing and legalizing company books are included if these transactions are required by law. The company law, the commercial code, and specific regulations and fee schedules are used as sources for calculating costs. In the absence of fee schedules, a government officer's estimate is taken as an official source. In the absence of a government officer's estimate, estimates of incorporation lawyers are used. If several incorporation lawyers provide different estimates, the median reported value is applied. In all cases the cost excludes bribes.
Time Required to Start Up a Business	Number of calendar days needed to complete the procedures to legally operate a business. If a procedure can be speeded up at additional cost, the fastest procedure, independent of cost, is chosen.
Corruption Perceptions Index	A ranking by Transparency International of countries in terms of the degree to which corruption is perceived to exist among their public officials and politicians. It is a composite index, a poll of polls, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions. It reflects views from around the world, including those of experts who are living in the countries evaluated. The scores ranges between 10 (highly clean) and 0 (highly corrupt). A country's rank indicates its position relative to the other countries/territories included in the index. It is important to keep in mind that a country's rank can change simply because new countries enter the index or others drop out.



## Key Indicators for Asia and the Pacific 2012

*Key Indicators for Asia and the Pacific 2012*, the 43rd edition of this series, is a statistical data book presenting economic, financial, social, and environmental indicators for the 48 regional members of the Asian Development Bank (ADB). This issue of *Key Indicators* presents in Part I a special chapter—Green Urbanization in Asia—followed by statistical tables in Parts II and III with short, nontechnical commentaries on economic, financial, social, and environmental developments.


Part II comprises the first set of statistical tables and commentaries, which look at the Millennium Development Goals and progress in the region toward achieving key targets. The second set of tables in Part III is grouped into seven themes, and provides a broader picture of economic, financial, social, and environmental developments. This publication aims to present the latest key statistics on development issues concerning the economies of Asia and the Pacific to a wide audience, including policy makers, development practitioners, government officials, researchers, students, and the general public. This year, ADB also publishes the second edition of the *Framework of Inclusive Growth Indicators*, a special supplement to *Key Indicators*.

## About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.8 billion people who live on less than \$2 a day, with 903 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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