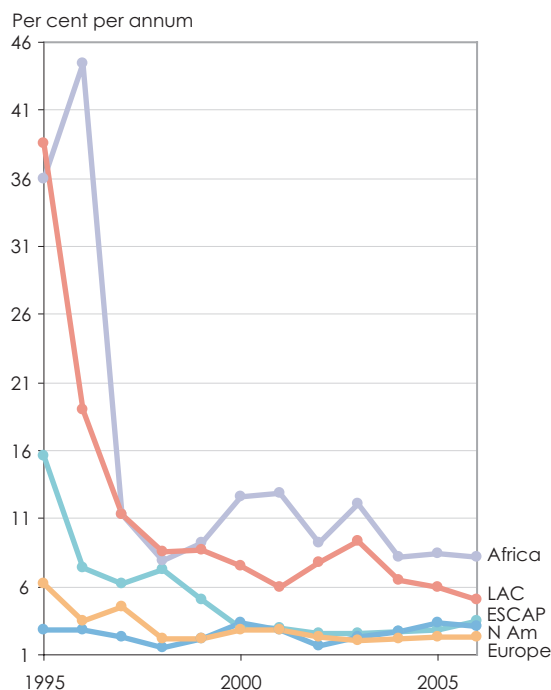


## 22. Inflation and interest rates

Steadily rising oil prices since 2001 continue to exert upward pressure on price levels worldwide. Despite tighter monetary policies in many countries of the region since 2005, there has been an increase in the Asian and Pacific region's average inflation rate, from 2.8 per cent in 2005 to 3.5 per cent in 2006.

Excluding developed economies, average inflation in Asia and the Pacific rose from 5.5 per cent in 2005 to 5.7 per cent in 2006. Compared with other regions in the world, Asia and the Pacific had slightly higher inflation than Europe (2.3 per cent) and North America (3.1 per cent), but lower than Latin America and the Caribbean (5.1 per cent) and Africa (8.2 per cent).

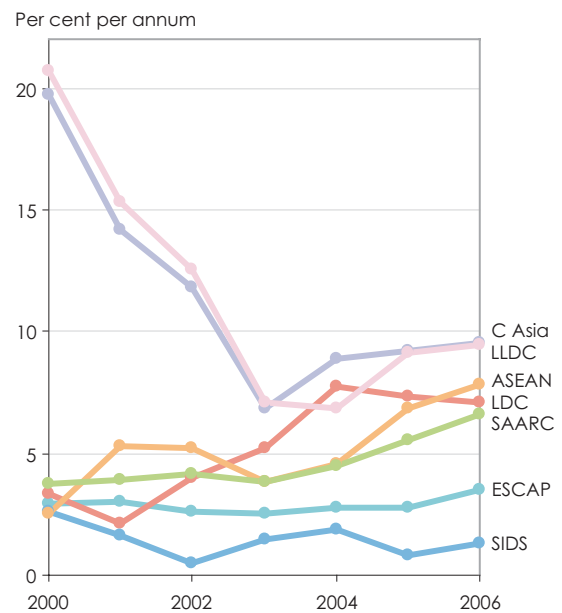
Figure 22.1 Inflation, by world region, 1995-2006



Inflation rates varied substantially, however, between countries and groups of countries. Economies with higher income levels were generally able to keep inflation rates at lower levels. Inflation among high-income economies have remained below 1 per cent throughout the last decade, despite an increase from 0.3 per cent in 2005. This is mainly due to the low inflation rate in Japan, which has been between -0.9 and 0.2 per cent since 2000. Low- and middle-income economies have had substantially higher inflation rates since 2000, ranging from 4.0 to 6.7 per cent and 6.3 to 10.4 per cent, respectively.

The country groupings with the highest inflation rates in the Asian and Pacific region since 1995 were landlocked developing countries and

Figure 22.2 Inflation in selected Asian and Pacific country/area groupings, 2000-2006



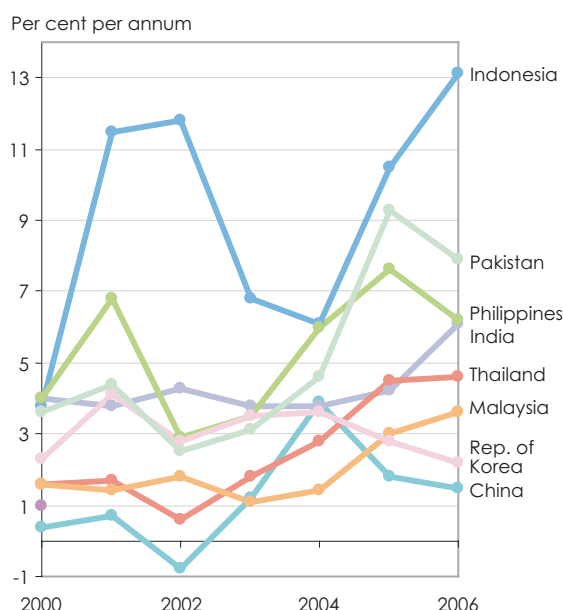
Central Asian countries. Both groupings were equally affected by the Russian financial crisis in the early 1990s after the break-up of the Union of Soviet Socialist Republics. The two groupings overlap to a large extent — the Central Asian countries are almost all landlocked developing countries. Despite a decline from the record-high levels of the early 1990s, inflation rates remained high; in 2006, they neared 10 per cent, which is three times the average of the Asian and Pacific region.

For many countries in Asia and the Pacific, the fluctuations in inflation rates have been substantial since 1990. This is true in particular for the economies most affected by the Asian financial crisis in 1997-1998. Inflation in Indonesia, for example, was about 7.8 per cent in 1990, then peaked at nearly 58 per cent in 1998 but was below 7 per cent by 2004 (figure 22.3). Other examples of economies with large inflation rate variations include such oil-importing economies as Malaysia, Thailand, Nepal and Pakistan, where the steady increase in oil prices caused inflation rates to nearly double between 2004 and 2006.

Despite strong economic growth in China, inflation has remained generally well below 5 per cent since 1990 and below 2 per cent since 2005. The inflation rate in India, in contrast, continues to increase, from 3.8 per cent in 2004 to 4.2 per cent in 2005 and finally to 6.1 per cent in 2006.

Central banks today mostly use open-market interventions to influence money supply and thus

Figure 22.3 Inflation in selected Asian countries, 2000-2006



inflation rates. However, a central bank's discount rates are often used as a signalling tool for capital markets to have an indication of the economic situation of a country, particularly in the case of the United States.

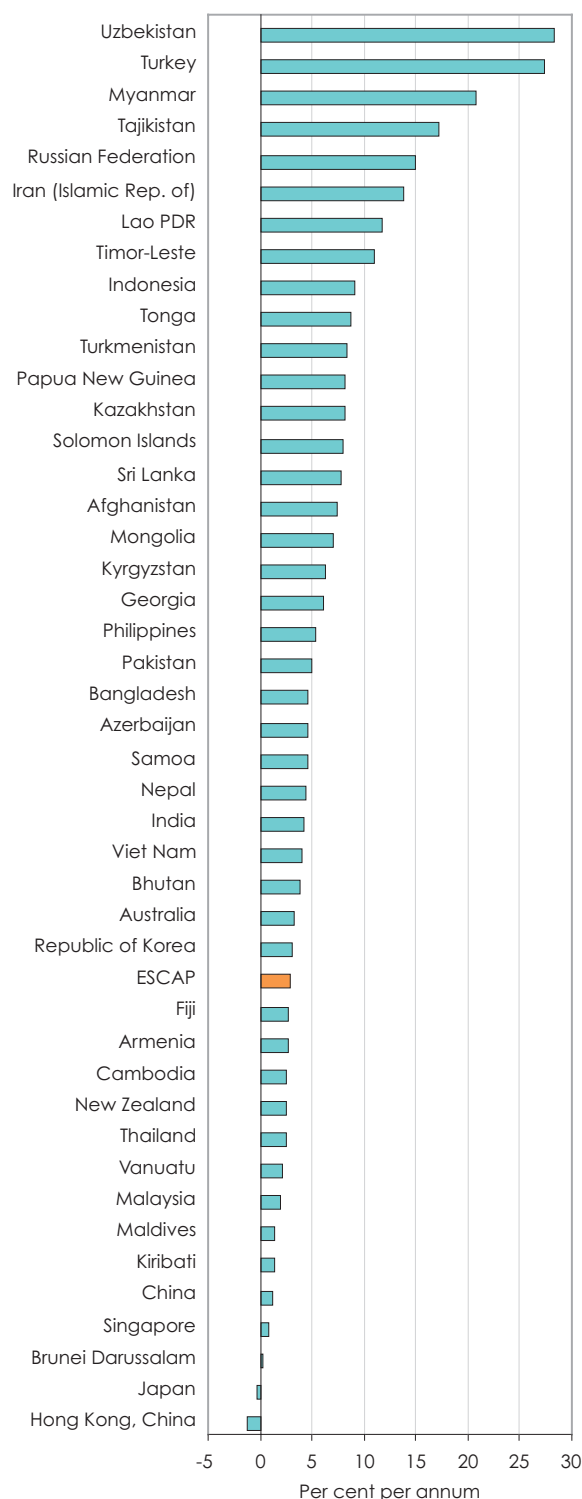
### Interest rates

The upward pressure on price levels from steadily rising oil prices alone does not require tighter monetary policies. However, in many economies in the Asian and Pacific region, inflation is not only of the supply-push type; it is also due to demand-pull factors. To prevent overheating of the economy, many central banks have halted the steady lowering of discount rates since 1998 and adopted tighter monetary policies in recent years.

During the period 1998-2006, following the Asian financial crisis, many economies in Asia and the Pacific lowered discount rates (figure 22.5). The Central Bank of the Philippines, for example, has reduced the discount rate from 12.4 per cent in 1998 to 7.9 per cent in 1999 and 5 per cent in 2006. Similarly, the Central Bank of Thailand reduced its discount rate from 12.5 per cent in 1998 to 5.5 per cent in 2005. The slight increase to 6.5 per cent in 2006 is consistent with the steady appreciation of the Thai baht against the United States dollar since 2000.

These discount-rate policy decisions only concern the short-term rates at which the commercial banks are able to borrow from central banks. They influence money market rates, but their

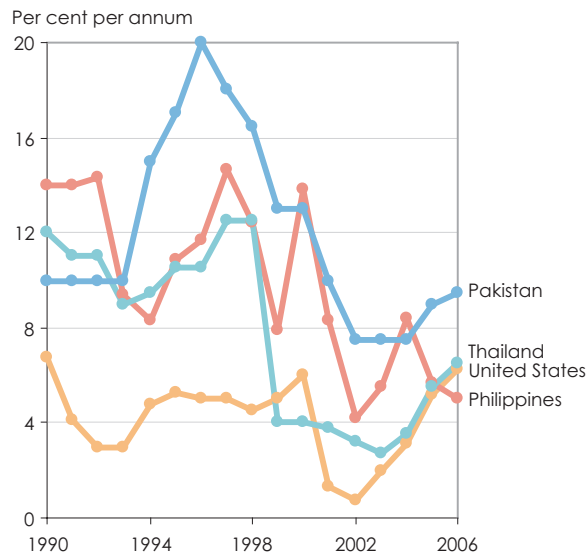
Figure 22.4 Average inflation in Asia and the Pacific, 2000-2006



effect on capital markets with longer maturities is much less clear, as capital market rates also depend on credit ratings, maturity and exchange rates. In general, the interest rates on 10-year government bonds vary less than the short-term central bank discount rates or Treasury bill rates (Treasury bill rates generally follow the pattern of a central bank's discount rates).

In the case of the Philippines, for example, the 10-year government bond yield declined more

Figure 22.5 Central bank discount rate of selected countries, 1990-2006



strongly than the discount rate — from 18 per cent in 1998 to 7.4 per cent in 2006, thus making it less costly for the Government to borrow in the short term as well as the long term (IMF, 2007). The Government of Thailand also borrows on “cheaper” interest-rate terms — 10.4 per cent in 1998 and 5.5 per cent in 2006. However, in the case of Pakistan, despite a decrease in the Central Bank’s discount rate from 16.5 per cent in 1998 to 9.5 per cent in 2006, the 10-year government bond yield only decreased from 13 per cent in 1997 to 8.5 per cent in 2006. This suggests that, for economies particularly hit by the Asian financial crisis, the term structure turned from downward-sloping in 1998 to almost flat in 2006, making short-term borrowing as “expensive” as long-term borrowing.

For major economies in the Asian and Pacific region, however, bank policy rates have been rising in recent years and they may continue to do so, as monetary policy may further tighten, initially in the United States, followed by Japan, China and the euro area. Higher interest rates in developed economies are likely to affect financing conditions for developing economies by increasing their future borrowing costs. For countries with large debt-to-GDP ratios, and particularly those with relatively large short-term debt positions, such as Papua New Guinea, Indonesia, Turkey, the Philippines and Pakistan, rising interest rates could pose threats to economic expansion.

As depicted in figure 22.7, the short-term United States interest rate has gradually increased in relation to both Japanese and Chinese short-term rates since 2002. Changes in interest rates are likely to translate into changes in exchange rates.

Figure 22.6 Central bank discount rate of selected countries, 1990-2006

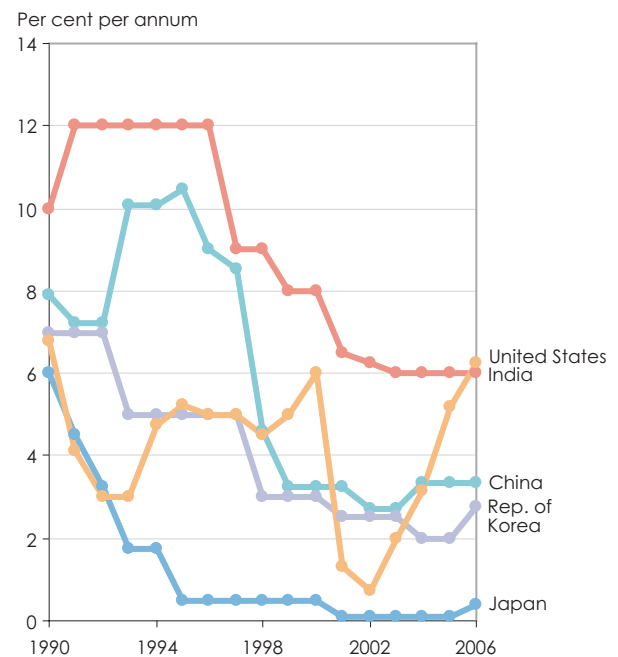
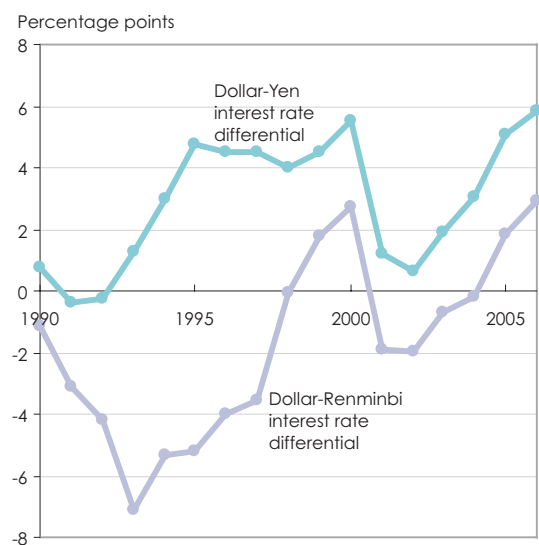


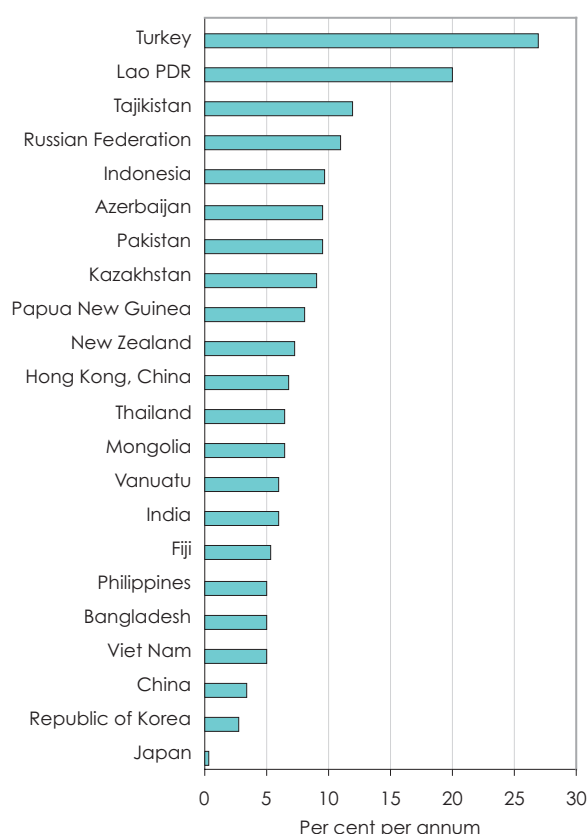
Figure 22.7 Dollar-yen and dollar-yuan interest rate differentials, 1990-2006



### Exchange rates

The Asian financial crisis of the late 1990s stimulated the debate on the right currency regime choices in Asia and the Pacific. While IMF has been advocating more flexible exchange rate regimes in general, others argue for more context-specific solutions, such as exchange rates with fixed pegs to either a basket of foreign currencies or a single “hard” currency such as the euro, the Japanese yen or the United States dollar as a transitory regime for economies with emerging financial markets — China and the Philippines, among others. The regimes in between these two extremes are frequently deemed not to be sufficiently credible

Figure 22.8 Central bank discount rate of selected Asian and Pacific countries, 2006

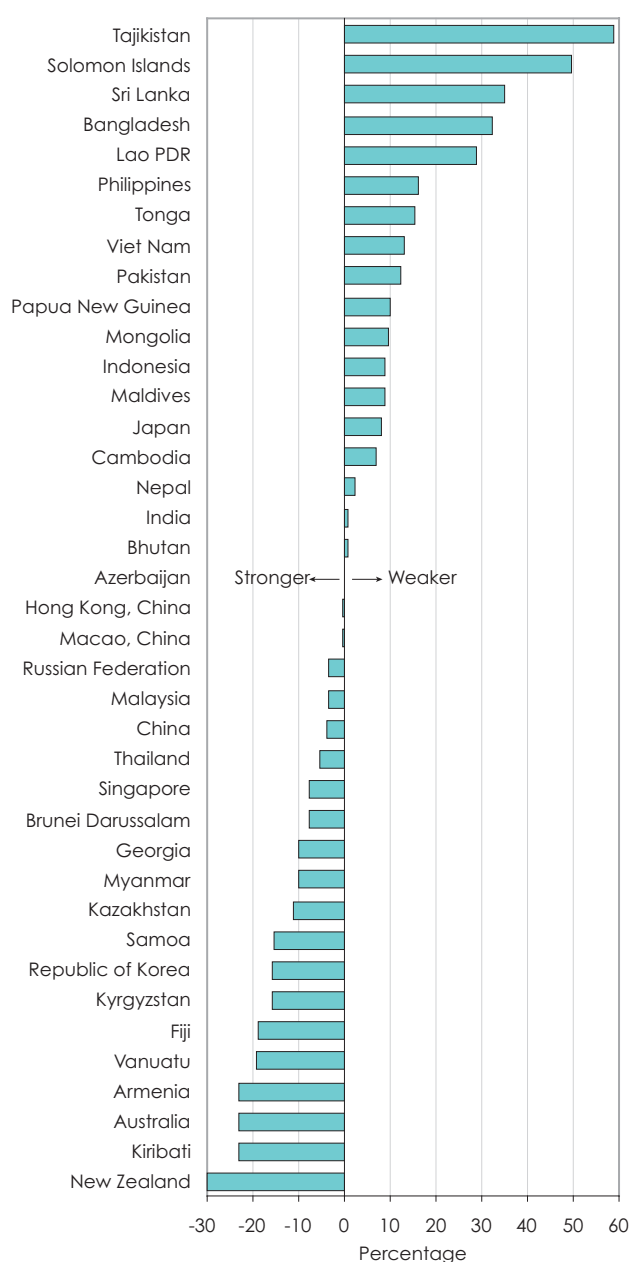


and thus prone to speculative attacks, as was experienced during the 1997 crisis.

Following the crisis, many developing economies in the Asian and Pacific region had to abandon their traditional United States dollar-peg system and allow their exchange rates to float. However, it is important to differentiate between currency regimes announced by the central banks and de facto regimes. Empirical evidence is needed to determine how much flexibility the central banks really allow for their currencies.

In the case of China, for example, the People's Bank of China announced, in July 2005, a revaluation of its currency and a reform of its exchange rate regime after more than a decade of pegging the yuan to the United States dollar at an exchange rate of 8.28. The revaluation put the yuan at 8.11 against the United States dollar, an appreciation of 2.1 per cent. Under the reform, the People's Bank of China announced that the yuan would be pegged to a basket of foreign currencies and would trade within a narrow 0.3 per cent band against this basket of currencies. In 2006, the average exchange rate was 7.97 against the United States dollar. Still, China's major trading partners, notably the United States, complain that the yuan is kept below its "real" market value in order to

Figure 22.9 Appreciation and depreciation of national currencies against the United States dollar in selected Asian and Pacific countries, 2000-2006



maintain current account surpluses and the high momentum of the economy.

During the past five years, the majority of Asian currencies have appreciated against the United States dollar due to the current account deficit that the United States economy has been running since 1982 (figure 22.9). The proportion of currencies in the Asian and Pacific region that has appreciated against the United States dollar since 2000 is as high as 68 per cent, similar to Europe (88 per cent) and Africa (50 per cent) but substantially higher than Latin America and the Caribbean (9 per cent).

With the United States current account balance deteriorating further, by US\$ 100 billion, to above 6 per cent of GDP in 2006, the United States dollar

risks continuing to depreciate against other major currencies worldwide. As many Asian and Pacific exports go to the United States, the steady appreciation of the major Asian currencies remains a challenge if countries in the region wish to

maintain the level of their exports to the United States market while addressing inflationary pressure. This is true in particular given the low proportion of Latin American currencies that have appreciated against the United States dollar since 2000.

**Inflation rate (percentage):** The rate of increase of the level of prices during a given period. It is the percentage change of the consumer price index between two points of time.

**Aggregates:** Averages are calculated using the household consumption expenditure component of the GDP in US dollars as weight. *Source:* International Monetary Fund, World Economic Outlook Database (online database, accessed in April 2007).

**Central bank discount rate (% per annum):** The rate at which the central bank lends or discounts eligible paper for deposit money to banks, typically reported on an end-of-period basis. *Source:* International Monetary Fund, *International Financial Statistics*, (CD-ROM June 2007).

**Average exchange rate (national currency per US dollar):**

The units of national currency required to purchase one US dollar, usually representing the period average. For some countries or areas, mid-point rates, or the average of buying and selling rates, are used. *Source:* International Monetary Fund, *International Financial Statistics*, (CD-ROM June 2007).

**Exchange rate change over period (percentage):** The

average rate of change in exchange rate for a range-year period. *Source:* Calculated by ESCAP using data from International Monetary Fund, *International Financial Statistics*, (CD-ROM June 2007).

## 22.1 Inflation and interest rates

	Inflation rate					Central Bank discount rate				
	Percentage					% per annum				
	1990	1995	2000	2005	2006	1990	1995	2000	2005	2006
<b>East and North-East Asia</b>										
China	3.1	17.1	0.4	1.8	1.5	7.9	10.4	3.2	3.3	3.3
DPR Korea										
Hong Kong, China	10.3	9.0	-3.7	0.9	2.0		6.3	8.0	5.8	6.8
Macao, China										
Mongolia		56.8	11.6	12.1	5.0		150.0	8.7	4.4	6.4
Republic of Korea	8.6	4.5	2.3	2.8	2.2	7.0	5.0	3.0	2.0	2.8
<b>South-East Asia</b>										
Brunei Darussalam	2.1	6.0	1.2	1.1	0.5					
Cambodia	141.8	9.9	-0.8	5.8	4.8					
Indonesia	7.8	9.4	3.8	10.5	13.1	18.8	14.0	14.5	12.8	9.8
Lao PDR	-26.3	19.1	23.2	7.2	6.8		32.1	35.2	20.0	20.0
Malaysia	3.0	3.2	1.6	3.0	3.6					
Myanmar	21.9	28.9	-1.7	10.1	26.3		12.5	10.0	10.0	
Philippines	13.2	8.5	4.0	7.6	6.2	14.0	10.8	13.8	5.7	5.0
Singapore	3.5	1.7	1.3	0.5	1.0					
Thailand	5.9	5.8	1.6	4.5	4.6	12.0	10.5	4.0	5.5	6.5
Timor-Leste			63.6	1.8	4.1					
Viet Nam	36.0	16.9	-1.6	8.3	7.5			6.0	5.0	5.0
<b>South and South-West Asia</b>										
Afghanistan				13.2	12.3					
Bangladesh	10.5	10.1	2.5	7.0	6.3	9.8	6.0	7.0	5.0	5.0
Bhutan	10.0	9.5	4.0	5.3	5.2					
India	9.0	10.2	4.0	4.2	6.1	10.0	12.0	8.0	6.0	6.0
Iran (Islamic Rep. of)	9.0	49.4	12.6	12.1	14.6					
Maldives	15.5	5.5	-1.2	3.3	3.5					
Nepal	7.4	7.2	2.4	4.5	8.0	11.0	11.0	7.5	6.0	
Pakistan	9.1	13.0	3.6	9.3	7.9	10.0	17.0	13.0	9.0	9.5
Sri Lanka	21.5	7.7	1.5	10.6	9.5	15.0	17.0	25.0	15.0	
Turkey	60.4	89.2	54.9	8.2	9.6	45.0	50.0	60.0	23.0	27.0
<b>North and Central Asia</b>										
Armenia		176.7	-0.8	0.6	2.9					
Azerbaijan		411.8	1.8	9.7	8.4		80.0	10.0	9.0	9.5
Georgia		162.7	4.0	8.3	9.2					
Kazakhstan		176.3	13.3	7.6	8.6		52.5	14.0	8.0	9.0
Kyrgyzstan		43.5	18.7	4.3	5.6					
Russian Federation		198.0	20.8	12.7	9.7		160.0	25.0	12.0	11.0
Tajikistan		612.5	32.9	7.3	10.1			20.6	9.0	12.0
Turkmenistan		1 005.3	8.0	10.7	8.2					
Uzbekistan		304.6	49.5	21.0	19.5					
<b>Pacific</b>										
American Samoa										
Cook Islands										
Fiji	8.2	0.3	1.1	2.4	3.4	8.0	6.0	8.0	2.8	5.3
French Polynesia										
Guam										
Kiribati	4.0	4.1	0.9	-0.5	-0.2					
Marshall Islands										
Micronesia (F.S.)										
Nauru										
New Caledonia										
Niue										
Northern Mariana Is.										
Palau										
Papua New Guinea	7.0	17.3	15.6	1.7	3.5	9.3	18.0	9.8	9.7	8.1
Samoa	8.5	-2.9	-0.2	7.8	3.2					
Solomon Islands	8.7	9.8	6.9	7.3	8.0					
Tonga	5.6	-0.5	5.3	9.7	6.8					
Tuvalu										
Vanuatu	4.8	2.2	2.5	1.2	1.6			7.0	6.3	6.0
<b>ESCAP Developed Economies</b>										
Australia	7.3	4.6	4.5	2.7	3.5					
Japan	3.1	-0.1	-0.4	-0.6	0.2	6.0	0.5	0.5	0.1	0.4
New Zealand	6.1	3.7	2.6	3.0	3.4	13.3	9.8	6.5	7.3	7.3
ESCAP	7.1	15.6	3.0	2.8	3.5					
LLDC		230.3	19.7	9.2	9.6					
LDC	15.5	10.1	3.4	7.3	7.1					
SIDS	4.1	2.5	2.6	0.8	1.3					
ASEAN	9.0	7.3	2.5	6.8	7.8					
SAARC	9.4	10.6	3.7	5.5	6.6					
Central Asia		264.8	20.7	9.1	9.5					
Low-income	10.2	18.0	4.6	5.7	6.7					
Middle-income		64.0	10.4	6.4	6.4					
High-income	4.1	0.8	0.1	0.3	1.0					
Africa	14.7	35.9	12.7	8.4	8.2					
Latin America & Carib.	1 663.4	38.6	7.5	6.0	5.1					
North America	5.4	2.8	3.4	3.3	3.1					
Europe	10.1	6.2	2.8	2.3	2.3					
Other Asia-Pacific	7.3	5.8	0.8	3.0	3.6					

World

## 22.2 Exchange rates

	Average exchange rate					Exchange rate change over period		
	National currency per US Dollar					Percentage		
	1990	1995	2000	2005	2006	90-95	95-00	00-06
<b>East and North-East Asia</b>								
China	4.78	8.35	8.28	8.19	7.97	74.6	-0.9	-3.7
DPR Korea								
Hong Kong, China	7.79	7.74	7.79	7.78	7.77	-0.7	0.7	-0.3
Macao, China	8.02	7.97	8.03	8.01	8.00	-0.7	0.7	-0.3
Mongolia		448.61	1 076.67	1 205.22	1 179.70	5 500.7	140.0	9.6
Republic of Korea	707.76	771.27	1 130.96	1 024.12	954.79	9.0	46.6	-15.6
<b>South-East Asia</b>								
Brunei Darussalam	1.81	1.42	1.72	1.66	1.59	-21.8	21.6	-7.8
Cambodia	426.25	2 450.83	3 840.75	4 092.50	4 103.25	475.0	56.7	6.8
Indonesia	1 842.81	2 248.61	8 421.78	9 704.74	9 159.32	22.0	274.5	8.8
Lao PDR	707.75	804.69	7 887.64	10 655.20	10 159.90	13.7	880.2	28.8
Malaysia	2.70	2.50	3.80	3.79	3.67	-7.4	51.7	-3.5
Myanmar	6.28	5.61	6.43	5.76	5.78	-10.6	14.5	-10.0
Philippines	24.31	25.71	44.19	55.09	51.31	5.8	71.9	16.1
Singapore	1.81	1.42	1.72	1.66	1.59	-21.8	21.6	-7.8
Thailand	25.59	24.92	40.11	40.22	37.88	-2.6	61.0	-5.6
Timor-Leste								
Viet Nam	6 482.80	11 038.30	14 167.70	15 858.90	15 994.30	70.3	28.4	12.9
<b>South and South-West Asia</b>								
Afghanistan	0.05	0.83	61.63	49.49		1 546.9	7 295.5	
Bangladesh	34.57	40.28	52.14	64.33	68.93	16.5	29.5	32.2
Bhutan	17.51	32.43	44.94	44.10	45.31	85.2	38.6	0.8
India	17.50	32.43	44.94	44.10	45.31	85.3	38.6	0.8
Iran (Islamic Rep. of)	68.10	1 747.93	1 764.43	8 963.96	9 170.94	2 466.9	0.9	419.8
Maldives	9.55	11.77	11.77	12.80	12.80	23.2	0.0	8.8
Nepal	29.37	51.89	71.09	71.37	72.76	76.7	37.0	2.3
Pakistan	21.71	31.64	53.65	59.51	60.27	45.8	69.5	12.3
Sri Lanka	40.06	51.25	77.01	100.50	103.91	27.9	50.2	34.9
Turkey	0.00	0.05	0.63	1.34	1.43	1 657.4	1 263.8	128.5
<b>North and Central Asia</b>								
Armenia		405.91	539.53	457.69	416.04		32.9	-22.9
Azerbaijan		0.88	0.89	0.95	0.89		1.4	-0.2
Georgia			1.98	1.81	1.78		56.8	-9.9
Kazakhstan		60.95	142.13	132.88	126.09		133.2	-11.3
Kyrgyzstan		10.82	47.70	41.01	40.15		340.8	-15.8
Russian Federation		4.56	28.13	28.28	27.19		517.0	-3.3
Tajikistan		0.12	2.08	3.12	3.30		1 589.9	58.9
Turkmenistan		110.92	5 200.00				4 588.2	
Uzbekistan		29.78	236.61				694.7	
<b>Pacific</b>								
American Samoa								
Cook Islands								
Fiji	1.48	1.41	2.13	1.69	1.73	-5.0	51.4	-18.7
French Polynesia								
Guam								
Kiribati	1.28	1.35	1.72	1.31	1.33	5.3	27.9	-23.0
Marshall Islands								
Micronesia (F.S.)	1.00	1.00	1.00	1.00	1.00	0.0	0.0	0.0
Nauru								
New Caledonia								
Niue								
Northern Mariana Is.								
Palau								
Papua New Guinea	0.96	1.28	2.78	3.10	3.06	34.0	117.4	9.9
Samoa	2.31	2.47	3.29	2.71	2.78	7.1	32.9	-15.4
Solomon Islands	2.53	3.41	5.09	7.53	7.61	34.7	49.4	49.5
Tonga	1.28	1.27	1.76	1.94	2.03	-0.7	38.4	15.2
Tuvalu								
Vanuatu	117.06	112.11	137.64	109.25	111.22	-4.2	22.8	-19.2
<b>ESCAP Developed Economies</b>								
Australia	1.28	1.35	1.72	1.31	1.33	5.3	27.9	-23.0
Japan	144.79	94.06	107.77	110.22	116.30	-35.0	14.6	7.9
New Zealand	1.68	1.52	2.20	1.42	1.54	-9.1	44.4	-29.9
<b>ESCAP</b>								
LLDC								
LDC								
SIDS								
ASEAN								
SAARC								
Central Asia								
Low-income								
Middle-income								
High-income								
<b>Africa</b>								
Latin America & Carib.								
North America								
Europe								
Other Asia-Pacific								
World								