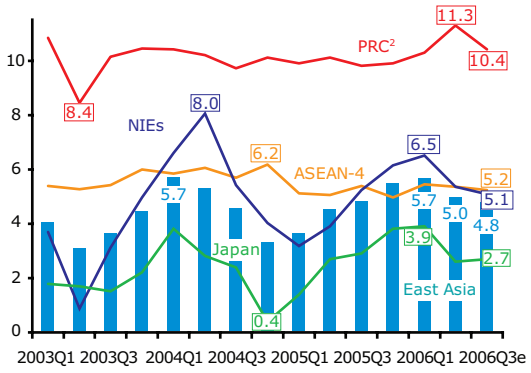
# East Asia—A Regional Economic Update[1]

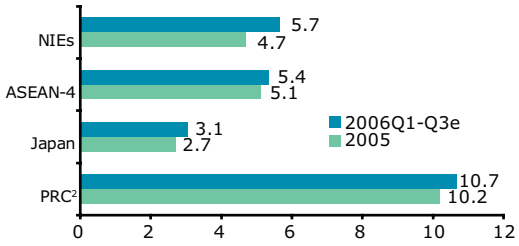
## Recent Economic Performance

Figure 1: **Regional GDP Growth[1]**



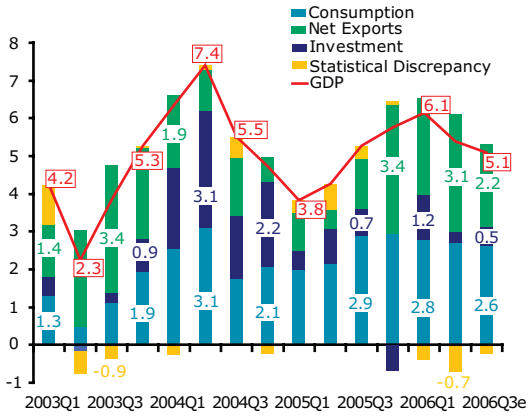

e=estimate
[1] Weighted by gross national income (atlas method, current $). Aggregates do not include Brunei Darussalam, Cambodia, Lao PDR, Myanmar, or Viet Nam.
[2] PRC estimates based on OREI staff calculations.
Sources: OREI staff calculations based on national sources.

Figure 2: **Regional GDP Growth[1]** (y-o-y, %)




e=estimate
[1]Weighted by gross national income (atlas method, current $).
[2]PRC estimates based on OREI staff calculations.
Sources: OREI staff calculations based on national sources.

Figure 3: **Contributions to Regional[1] GDP Growth** (y-o-y, %)




e=estimate
[1]Regional = ASEAN-4 + NIEs.
Source: OREI staff calculations based on CEIC data.

### GDP Growth

East Asia's gross domestic product (GDP) likely grew 5.2% in the first three quarters of 2006, spurred by strong and steady demand for the region's exports, and an expansion in domestic demand that peaked in several economies in the first half. In Japan, year-on-year (y-o-y) GDP growth[2] crested at nearly 4.0% in the first quarter of 2006 before easing slightly over the next two quarters (Figure 1). The newly industrialized economies (NIEs) and to a much lesser extent the four middle-income countries of the Association of Southeast Asian Nations (ASEAN-4), mirrored this trend.[3] In contrast, GDP growth soared to 11.3% in the second quarter in the People's Republic of China (PRC) and then began to ebb as policies to curb booming investment took hold. Notwithstanding recent slower growth, in the first three quarters of 2006 East Asian GDP growth rates were higher than in 2005 (Figure 2).

GDP growth slowed after the first quarter of 2006 as domestic demand weakened. Among the NIEs and ASEAN-4, this mainly reflected a drop-off in already low investment growth and, more generally, slightly easier consumption growth (Figure 3). The external sector partially cushioned the effect of slowing investment on growth as (i) export volume sustained a relatively rapid pace of growth, and (ii) ongoing adjustments to high commodity prices and a drawdown on inventories restrained import volume growth.

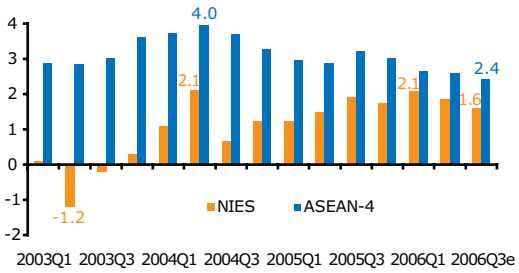
Consumption growth eased in the second half of 2006 yet remained strong in several East Asian economies. In Japan, for example, temporary factors, such as an exceptionally hot summer, sharply curtailed private consumer spending in the third

[1]East Asia includes the 10 members of the Association of Southeast Asian Nations (Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam), plus People's Republic of China; Hong Kong, China; Japan; Republic of Korea; and Taipei,China.

[2]Unless otherwise noted, all growth figures are y-o-y.

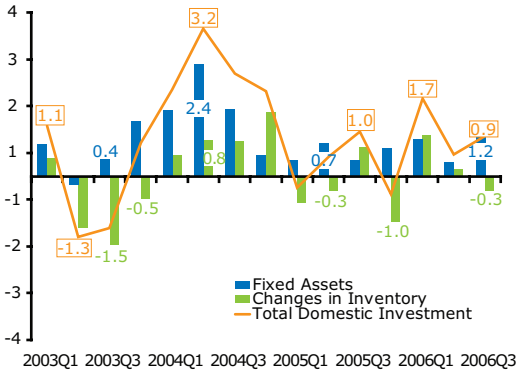
[3]The newly industrialized economies are Hong Kong, China; Republic of Korea; Singapore; and Taipei,China. The ASEAN-4 economies are Indonesia, Malaysia, Philippines, and Thailand.

Figure 4: **Private Consumption Contributions to GDP Growth: NIEs and ASEAN-4** (y-o-y, %)



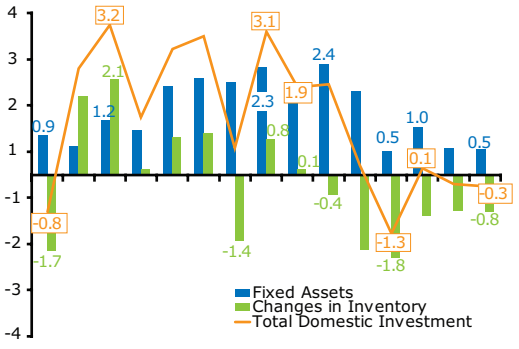

e=estimate
Source: OREI staff calculations based on CEIC data.

Figure 5a: **Investment Contributions to GDP Growth: NIEs** (y-o-y, %)




Source: OREI staff calculations based on CEIC data.

Figure 5b: **Investment Contributions to GDP Growth: ASEAN-4** (y-o-y, %)




e=estimate
Note: 2006Q3 for Indonesia and Thailand are OREI staff estimates.
Source: OREI staff calculations based on CEIC data.

quarter of 2006. This interrupted a vigorous period of expansion supported by higher labor income and firmer prices, which boosted consumer and business confidence. In the PRC, private consumption remained healthy, although it contributed less than investment to overall economic growth. Nominal monthly retail sales growth averaged 13.5% through September 2006, pointing to a third consecutive year of double-digit gains. Among the NIEs, despite softening, private consumption contributed significantly to GDP growth (Figure 4). In the Republic of Korea (Korea), however, the recovery in private consumption from a household debt-related contraction in 2003 seemed to be winding down in the third quarter of 2006. And in Taipei,China a large credit debt overhang constrained consumer spending.

In ASEAN-4 economies, more stable GDP growth partly reflects the larger contribution from private consumption than in the NIEs, even if growth performance in these countries was uneven. For example, in the Philippines, large overseas workers' remittances continued to allow for strong and stable growth in private consumption. In contrast, faltering private consumption growth was most evident in the high-inflation Indonesian environment, although it was offset by very strong public consumption growth.

Investment generally slowed in 2006. In Japan, a contraction in public investment more than offset stronger private investment growth, driven by rising capacity utilization and improved business confidence. In the PRC, growth of investment in fixed assets peaked at 33% in June 2006 before dropping to 16% in October, as a result of the cumulative policy measures introduced to curb excessive investment in key sectors such as real estate (Box 1). Elsewhere, persistently weak or uneven investment contributed little to economic growth. In the NIEs, a light rebound in domestic investment faded after the first quarter of 2006 as inventories were drawn down (Figure 5a). Over the first three quarters of 2006 in Hong Kong, China and Singapore, fixed investment growth rebounded somewhat from exceptional weakness in 2005, but was still weak in Korea and contracting in Taipei,China. The ASEAN-4 economies underwent sharper inventory corrections and a more pronounced overall deterioration in investment (Figure 5b). Over the first three quarters of 2006, fixed investment rebounded somewhat in Malaysia, but dropped off sharply in Indonesia and Thailand, and continued to contract in the Philippines.

Box 1: **Measures to Cool Investment in the PRC: Are They Effective?**

The recent drop in the growth of fixed asset investment in the People's Republic of China (PRC) comes after a long period when, despite numerous measures to restrain the investment boom, investment grew almost unabated (Figure B1). This raised concerns that measures taken to cool investment were not effective. Many analysts had previously suggested that the problem was primarily one of excess growth of the monetary base (liquidity), stemming in part from foreign exchange market intervention, which contributed to excessive bank lending to finance projects of perhaps questionable quality. A secondary problem was continuing investment promotion by local governments, for example, through the extensive use of credit lines (called package loans) to finance local investment projects.

Accordingly, many policies in 2005 focused on gradually reducing overseas sources of excess liquidity. This approach continued into 2006 but was complemented in mid-year by (i) non-market measures such as decrees to curb package loans—targeting domestic sources of excess liquidity—and by (ii) direct measures to curb investment in specific sectors, such as higher downpayments on mortgage loans. In the second half of the year, however, authorities increasingly used more market-based measures such as hiking interest rates and reserve requirements. All of these policy actions were designed to cool investment by reducing liquidity and credit growth.

World Bank evidence suggests one reason these measures had limited success was that a high proportion of investment projects were financed by retained earnings of unusually profitable private enterprises.[1] In fact, the World Bank estimates that enterprise savings in 2005 were 20.0% of GDP, as compared with, for example, 4.8% for India in 2004 and 14.8% for Korea in 2002.[2] Given that enterprise investments totaled an estimated 31% of GDP, this means that roughly two-thirds of investments were financed by enterprise savings. This does not necessarily mean that retained earnings are financing investment, however—profits from firms with surplus savings relative to investment plans are still channeled through the banking system (together with household savings) to other firms with savings deficits relative to their investment plans. However, the World Bank also suggests that sectors with the most profitable private sector firms are also those with the highest investment rates, implying that retained earnings may be playing an important role.

If retained earnings are funding a large share of investment then macroeconomic management becomes more difficult because (i) investment will be procyclical, accentuating business cycles, (ii) it will be less subject to market discipline, and (iii) monetary policy will be less effective. Thus, the World Bank concludes that an important policy would be one that discourages excessive retention of earnings. For example, state-owned enterprises (SOEs) might be required to distribute dividends.

However, the conclusion that retained earnings are financing the bulk of investment has been challenged by other analysts, who argue that enterprise profitability in the PRC is much lower than suggested by the World Bank, and that the confusion arises, in part, because of statistics that are either mismeasured, misinterpreted, or both. Some have pointed out that the National Bureau of Statistics data show that 23% of all industrial firms and one-third of SOEs are losing money, concluding that true firm profitability is low—in part because of declining prices for finished products.[3] Thus, banks finance the bulk of investment and this low-profit model of rapid growth is risky for the PRC because of the threat to banks from a significant nonperforming loan overhang. The implication is that the policy priority should be to improve bank supervision and banking practices as a complement to reducing liquidity in the system.

At first glance, these views are irreconcilable. Either the bulk of investment is funded by retained earnings or by banks. Both can't be true. However, in terms of policy, these two views are not as incompatible as at first

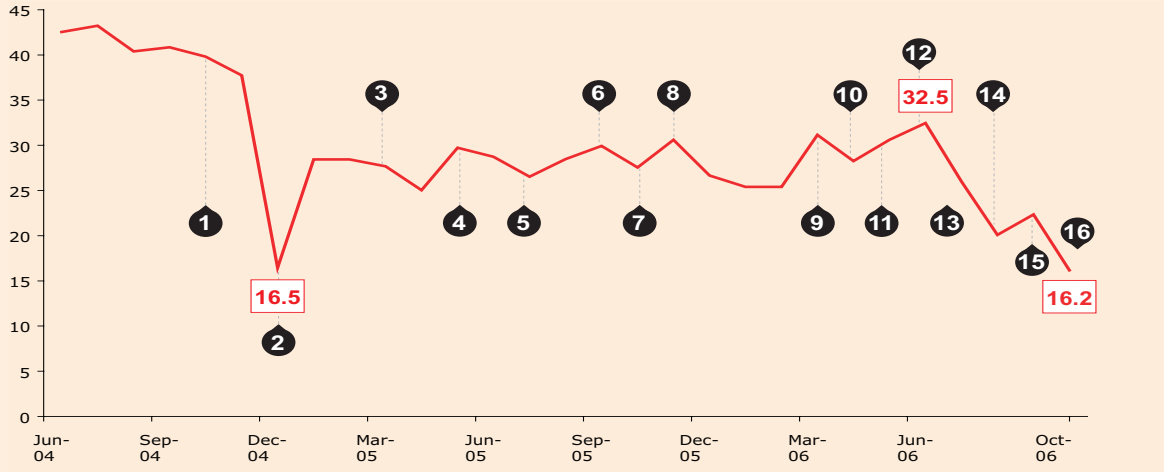
[1]World Bank, *China Quarterly Update*, August 2006, Box 2.

[2]World Bank, China Office Research Working Paper No. 5: "How Will China's Savings-Investment Balance Evolve?," p. 24, www.worldbank.org.cn.

[3]See, for example, the exchange of views between Weijan Shan of TPG Newbridge and Bert Hofman and Louis Kuijs of the World Bank in the September, October, and November issues of the *Far Eastern Economic Review*.

appears. The exact ratio might be in question but it is possible that there are large numbers of firms financing their own investments and significant numbers of less profitable firms borrowing from banks. Thus, (i) encouraging accurate reporting and measurement of profits, (ii) implementing a sensible dividend policy for SOEs, (iii) improving bank performance, and (iv) using more direct market measures to drain excess liquidity from financial markets are all important policies that can reduce risks and improve macroeconomic management.

Figure B1: **PRC's Fixed Asset Investment** (y-o-y, %) **and Related Policies**




Note: January and February growth rates are equal because the cumulative levels of the first 2 months are not separately available.

Sources: OREI staff calculation from CEIC data, *Asian Development Outlook 2006* (ADB), JP Morgan, and *World Economic Outlook, 2006* (World Bank).

❶ Oct 2004: People's Bank of China (PBC) removed ceiling on most commerical bank lending rates; raised benchmark one-year lending rate and one-year benchmark deposit rate by 0.27 percentage point to 5.58% and 2.25%, respectively.

❷ Dec 2004: PBC issued central bank bills with 3-year maturity for the first time.

❸ Mar 2005: Downpayment for consumer housing loans was raised from 20% to 30% for cities and areas believed to have rapidly increasing real-estate prices.

❹ May 2005: Authorities announced property-related measures to curb speculation in residential and commercial markets, including sales tax on residential flats sold within 2 years of initial purchase, and a tax penalty on developers for land undeveloped within a year of purchase, among others.

❺ Jul 2005: PBC adopted market-based managed floating foreign exchange regime.

❻ Sep 2005: State Administration of Foreign Exchange (SAFE) enhanced overseas investment support of domestic foreign-exchange designated banks providing guarantees to PRC enterprises and qualified domestic institutions' foreign investment enterprises.

❼ Oct 2005: PBC sterilized liquidity through issuance of 3- and 6-month bills.

❽ Nov 2005: PBC conducted first-ever currency swap worth $6 billion, for a year.

❾ Mar 2006: SAFE announced further liberalization of capital account including liberalization of domestic companies' overseas investments.

❿ April 2006: Several ministries jointly issued a decree to stop providing "package loans" or credit cooperation agreements with local government units (LGUs). PBC convened "window guidance" meeting to control rapid credit expansion and improve loan structure. PBC raised benchmark one-year lending rate by 0.27 percentage point to 5.85%.

⓫ May 2006: Real estate investments by foreigners were restricted. PBC adjusted downpayment ratio for mortgage loans by commercial banks to be no less than 30%.

⓬ Jun 2006: PBC (i) tightened liquidity by issuing central bank bills to commercial banks that have created excessive loans, (ii) established foreign exchange primary dealer system, and (iii) convened "window guidance" meeting to control rapid credit expansion. Restrictions on real estate investment were imposed.

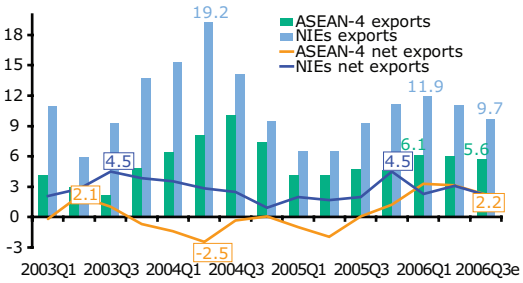
⓭ Jul 2006: PBC further adjusted policies governing overseas investments: removing foreign exchange quotas and allowing domestic investors to make overseas payments on pre-investment expenditures with their own foreign exchange. Reserve requirement ratio rose by 0.5% to 8.0%.

⓮ Aug 2006: PBC raised (i) reserve requirement ratio by 0.5 percentage point to 8.5%; (ii) benchmark one-year lending rate and one-year deposit rate by 0.27 percentage point to 6.12% and 2.52%, respectively; and (iii) individual mortgage rate by 5 percentage points to 15%.

⓯ Sep 2006: PBC raised reserve requirement that banks must hold against foreign currency from 3% to 4%.

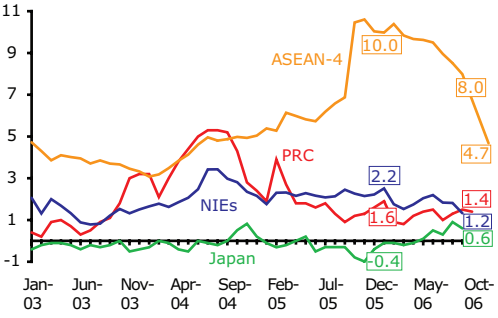
⓰ Nov 2006: PBC raised reserve requirement ratio by 0.5 percentage point to 9.0%.

Figure 6: **External Contributions to GDP Growth** (y-o-y, %)




e=estimate
Source: OREI staff calculations based on CEIC data.

Figure 7: **Regional Inflation—Headline Rates** (y-o-y, %)




Sources: OREI staff calculations based on CEIC data, Hong Kong Monetary Authority, and Central Bank of China (Taipei,China).

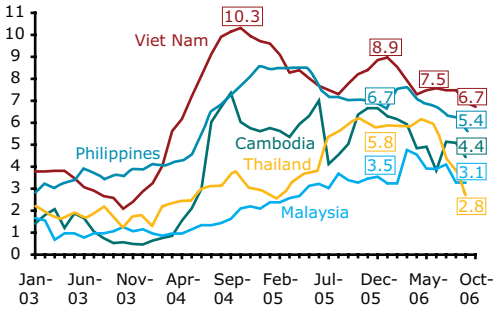
The export recovery that began in the second half of 2005, extended well into the second half of 2006, markedly boosting the contribution of external demand to the regional economic expansion. In late 2006, neither the housing-led slowing of GDP growth in the United States (US), nor weaker global industrial production had a significant impact on external demand for the region's goods. In Japan, a relatively weak yen supported a strong rebound in export demand. In the PRC, export growth reaccelerated in the third quarter of 2006. In the NIEs and ASEAN-4 economies, robust gross exports and positive net exports contributed to GDP growth (Figure 6). External demand continued to expand at a healthy pace in 2006 in Hong Kong, China and Singapore, and strengthened noticeably in Korea and Taipei,China. Among the ASEAN-4 economies, only in Malaysia was export demand growth mildly weaker, following very strong growth in 2004–05. In contrast, exports improved noticeably in Indonesia, and especially in the Philippines.

## Inflation

By the third quarter of 2006, the world economic expansion had moderated, contributing to lower global commodity prices and reducing inflationary pressures across East Asia, with the notable exception of Japan (Figure 7). For several economies in the region, headline inflation began to ease well before energy prices peaked in early August 2006. In Japan, however, headline inflation moved into positive territory after mid-2006. In the PRC, despite rapid consumption growth, consumer price inflation eased slightly over the course of 2006 to 1.4% in October 2006, from an average 1.8% in December 2005. Limited adjustments to administered energy prices, fierce competition, abundant supply of manufactured goods, and a bountiful harvest helped keep inflation low.

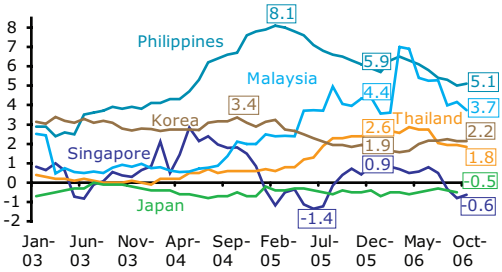
For the NIEs, inflation trends varied across countries, although they remained generally low and, in aggregate, fell over 2006. In Taipei,China, price pressures faded sharply: inflation began to ease by mid-year, turned negative in August, and deepened into 1.2% deflation in October, as energy and food prices fell against the backdrop of weakening domestic demand. In Korea and Hong Kong, China, the adjustment was relatively mild, in part because of stronger underlying domestic demand. In both cases inflation dropped after peaking in August. In Singapore, after drifting mildly upward until January 2006, inflation eased below 1.0% by August.

Figure 8: **Inflation in Selected ASEAN Economies—Headline Rates** (y-o-y, %)



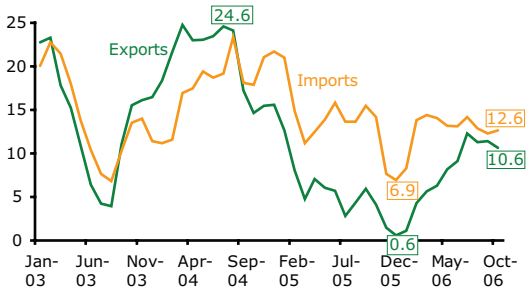

Sources: OREI staff calculations based on data from CEIC and *International Financial Statistics* (IMF).

Figure 9: **Core Inflation Rates** (y-o-y,%)




Note: Official figures, except Malaysia (ex. food, fuel, utilities) and Singapore (ex. food, private transport).
Sources: OREI staff calculations based on Bloomberg data, CEIC, Bank of Thailand, and Bangko Sentral ng Pilipinas.

Figure 10A: **Japan Merchandise Export & Import Growth**[1] ($ value, y-o-y, %)




[1] 3-month moving average.
Source: CEIC.

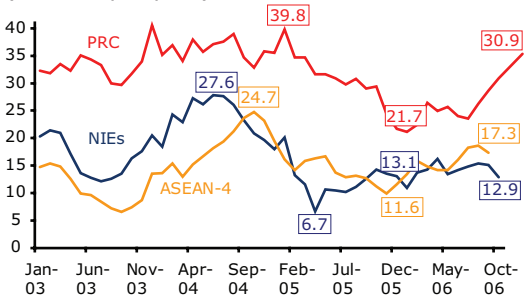
Among the ASEAN economies, which generally have higher inflation, the 2005 upswing associated with rising energy prices was generally more pronounced—as was the downward trend when those pressures subsided. The aggregate trend depicted in Figure 7 largely reflects Indonesia, the largest ASEAN economy. After the 127% upward adjustment to fuel prices in October 2005, monthly inflation—which remained at double digit levels until October 2006—dropped sharply to 6.3%. Inflation trended decisively down elsewhere in ASEAN as well, particularly in those economies where the pass-through of energy prices occurred quickly (Figure 8). In Thailand, inflation dropped from above 6.0% in May 2006 to under 3.0% in September as fuel prices declined. In contrast, Malaysian inflation remained relatively high for a longer period, with the adjustment to higher global energy prices started but incomplete. In Cambodia, Philippines, and Viet Nam, bumper harvests erased the effects of the 2005 drought, pushing agriculture prices down and, with them, overall inflation.

Accompanying the drop in headline consumer inflation was a general decline in core inflation. When volatile energy and food prices are stripped out, core inflation shows the slowing pass-through of higher energy costs into the general price level (Figure 9). In Malaysia, in particular, the effect on inflation of the rise in transportation rates early in 2006 dissipated quickly. There is renewed weakness in core prices in Singapore, meanwhile, and in Japan, core inflation is negative or near zero, despite the upward trend in headline inflation.

## Balance of Payments

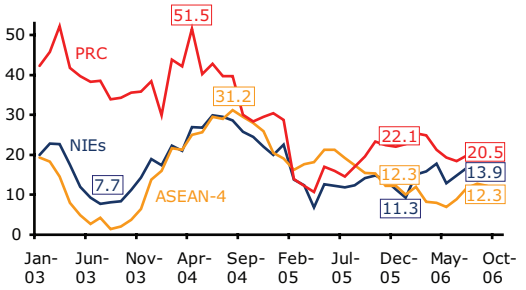
Even as global industrial production cooled in the second half of 2006, a resurgent electronics sector helped to boost exports across the region. In Japan, strong capital goods exports to Japanese firms operating in the PRC, and robust US demand for fuel-efficient cars, drove export growth into double digits in the third quarter of 2006 (Figure 10A). PRC export growth rebounded to 30.9% in October 2006 as textile and electronics manufacturers continued to gain global market share, especially in Europe, where accelerating growth in domestic demand stimulated imports. ASEAN exports accelerated on strong demand from the PRC, the fastest growing market for many ASEAN products—especially intermediate goods for the electronics sector (Figure 10B). For the NIEs, special factors moderated the boost from favorable global demand. In Korea, for example, a strong won constrained

Figure 10B: **Merchandise Export Growth**[1]
($ value, y-o-y, %)



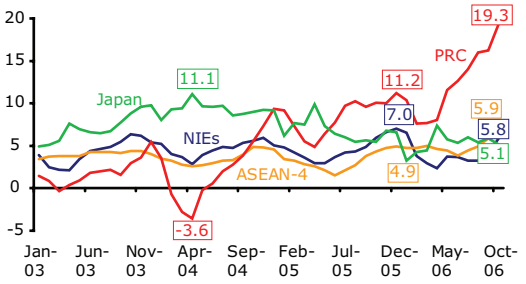

[1] 3-month moving average.
Source: CEIC.

Figure 10C: **Merchandise Import Growth**[1]
($ value, y-o-y, %)




[1] 3-month moving average.
Source: CEIC.

Figure 11: **Trade Balance**[1] ($ billions)




[1]3-month moving average.
Source: CEIC.

electronics exports even as robust US and PRC demand for capital goods and cars drove export growth to 21.3% in September 2006. In Hong Kong, China, slightly slower growth in the US and PRC, and increased use of direct shipments from PRC factories, slowed re-export growth, with total export growth falling to 8.6% in the third quarter of 2006 from 12.8% in the first quarter.

Import trends varied across the region: energy prices pushed up import bills in some cases, whereas in others, import growth was constrained by inventory drawdown. For example, higher energy prices and resurgent domestic demand reaccelerated import growth in Japan, which had slowed sharply in late 2005. In the NIEs, stronger demand in 2006 had import growth up to 13.9% by October, from 11.3% in December 2005 (Figure 10C). In the PRC as investment slowed, import growth fell to 20.5% in October, from 22.0% in September 2006. In the ASEAN-4 economies, import growth was subdued compared with the strong acceleration in export growth. This was partly the result of a large inventory correction, which began to fade in the second half of the year.

Driven by strong exports and the varied import picture, most economies posted strong trade surpluses in the first three quarters of 2006. The PRC stands out, with a large rise in the trade surplus to $19.3 billion in October 2006, from $11.2 billion in December 2005 (Figure 11). In the ASEAN-4 economies rising trade balances, sustaining a trend begun in late 2005, should see higher surpluses (or a lower deficit in the case of the Philippines). In the NIEs, by contrast, the aggregate surplus fell, primarily the result of a weakening trade surplus in Korea and a widening deficit in Hong Kong, China.

Positive trade balances mostly translated into sustained current account surpluses through the first half of 2006. The current account surplus was stable at 3.8% of GDP in Japan, rose to 8.0% in PRC and to 4.7% in ASEAN-4, and dipped to 4.9% in the NIEs (Table 1a–1d). These net inflows were matched by generally stronger capital accounts in the first half of 2006. Even in Japan, where net capital outflows in the first three quarters of 2006 amounted to 2.5% of GDP the overall balance of payments surplus improved marginally to 0.7% of GDP. Elsewhere in the region, strong net capital inflows complemented current account surpluses in contributing to a significantly stronger balance of payments. As a result, balance of payments surpluses rebounded substantially from those in the second half of 2005.

Table 1a: **Balance of Payments—ASEAN-4** (% of GDP)

| | 2004H1 | 2004H2 | 2005H1 | 2005H2 | 2006H1 |
|---|---|---|---|---|---|
| Current Account | 2.8 | 5.1 | 2.0 | 3.5 | 4.7 |
| Capital Account | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Financial Account | -0.1 | 1.5 | 2.0 | -2.8 | 0.1 |
| Net Direct Investment | 0.2 | 0.6 | 1.8 | 0.8 | 0.9 |
| Net Portfolio Investment | 1.5 | 2.7 | 1.8 | 0.8 | 2.1 |
| Net Other Investment | -1.9 | -1.8 | -1.6 | -4.5 | -2.8 |
| Net Errors & Omissions | 0.8 | -1.2 | -0.9 | -0.4 | 0.9 |
| Overall Balance | 3.5 | 5.4 | 3.2 | 0.4 | 5.7 |

Sources: Bank Indonesia, Bangko Sentral ng Pilipinas, *International Financial Statistics Online* (IMF), and CEIC.

Table 1b: **Balance of Payments—NIEs** (% of GDP)

| | 2004H1 | 2004H2 | 2005H1 | 2005H2 | 2006H1 |
|---|---|---|---|---|---|
| Current Account | 6.2 | 7.6 | 5.4 | 6.6 | 4.9 |
| Capital Account | -0.2 | -0.2 | -0.3 | -0.2 | -0.2 |
| Financial Account | 0.5 | -3.7 | 0.7 | -5.4 | -2.2 |
| Net Direct Investment | -0.6 | -0.3 | 0.8 | 1.1 | 1.4 |
| Net Portfolio Investment | -7.4 | -0.4 | -4.7 | -1.1 | -5.5 |
| Net Other Investment | 8.5 | -3.0 | 4.6 | -5.4 | 1.9 |
| Net Errors & Omissions | 1.3 | 1.2 | -0.0 | 0.8 | 0.7 |
| Overall Balance | 7.9 | 4.9 | 5.8 | 1.9 | 3.2 |

Sources: *International Financial Statistics Online* (IMF), and CEIC.

Table 1c: **Balance of Payments—Japan** (% of GDP)

| | 2004H1 | 2004H2 | 2005H1 | 2005H2 | 2006H1 |
|---|---|---|---|---|---|
| Current Account | 3.9 | 3.6 | 3.6 | 3.7 | 3.8 |
| Capital Account | -0.1 | -0.1 | -0.1 | -0.1 | -0.2 |
| Financial Account | 3.3 | -2.2 | -2.8 | -2.6 | -2.5 |
| Net Direct Investment | -0.4 | -0.6 | -0.6 | -1.3 | -1.4 |
| Net Portfolio Investment | 0.6 | 0.4 | 0.1 | -0.7 | 4.7 |
| Net Other Investment | 3.0 | -2.0 | -2.4 | -0.6 | -5.8 |
| Net Errors & Omissions | -0.4 | -0.8 | -0.2 | -0.5 | -0.4 |
| Overall Balance | 6.7 | 0.4 | 0.5 | 0.5 | 0.7 |

Sources: *International Financial Statistics Online* (IMF), and CEIC.

Table 1d: **Balance of Payments—PRC** (% of GDP)

| | 2004H1 | 2004H2 | 2005H1 | 2005H2 | 2006H1 |
|---|---|---|---|---|---|
| Current Account | 1.0 | 5.0 | 7.0 | 7.4 | 8.0 |
| Capital Account | -0.0 | -0.0 | 0.2 | 0.2 | 0.2 |
| Financial Account | 9.4 | 3.6 | 3.7 | 1.8 | 3.2 |
| Net Direct Investment | 4.3 | 1.9 | 2.3 | 3.6 | 2.7 |
| Net Portfolio Investment | 3.9 | -0.7 | -0.1 | -0.3 | -2.6 |
| Net Other Investment | 1.2 | 2.4 | 1.5 | -1.5 | 3.1 |
| Net Errors & Omissions | -1.0 | 2.8 | -0.5 | -0.9 | -0.7 |
| Overall Balance | 9.4 | 11.4 | 10.4 | 8.4 | 10.7 |

Sources: *International Financial Statistics Online* (IMF), and CEIC.

The improvements in balance of payments, coupled with central bank intervention in the foreign exchange markets, have led to continued reserve accumulation, adding nearly $280 billion in 9 months to the region's reserves—which exceeded $2.8 trillion by end-September 2006 (Table 2). Although 60% of this accumulation was in the PRC, where reserves topped $1 trillion in October 2006, most other economies in the region also added to their reserves in 2006. High reserves are increasingly attracting public attention, in part because they are generally perceived as substantially higher than normal reserve requirements (Box 2).

Table 2: **Foreign Exchange Reserves** (excluding gold)

| Country/Region | **Value** ($ billion) | | | | **% change** (y-o-y) | | **% change from Dec 2005** | | |
|---|---|---|---|---|---|---|---|---|---|
| | Dec 05 | Mar 06 | Jun 06 | Sep 06 | Dec 04 | Dec 05 | Mar 06 | Jun 06 | Sep 06 |
| Brunei Darussalam | 0.5 | 0.5 | 0.5 | … | 4.9 | -2.2 | 0.1 | 2.7 | … |
| Cambodia | 1.0 | 1.0 | 1.0 | … | 15.7 | 1.0 | 5.7 | 8.6 | … |
| China, People's Rep. of | 821.5 | 877.6 | 943.6 | 990.5 | 50.6 | 33.7 | 6.8 | 14.9 | 20.6 |
| Hong Kong, China | 124.2 | 125.8 | 126.6 | 130.3 | 4.4 | 0.6 | 1.3 | 1.9 | 4.9 |
| Indonesia | 33.0 | 38.2 | 38.3 | 40.5 | -0.0 | -5.6 | 15.7 | 16.2 | 22.7 |
| Korea, Rep. Of | 210.3 | 217.3 | 225.6 | 228.2 | 28.2 | 5.7 | 3.3 | 7.3 | 8.5 |
| Lao PDR | 0.2 | 0.2 | 0.3 | … | 7.0 | 4.9 | 6.5 | 7.8 | … |
| Malaysia | 69.9 | 73.1 | 78.4 | 79.2 | 49.1 | 5.2 | 4.6 | 12.3 | 13.4 |
| Myanmar | 0.8 | 0.9 | 0.9 | … | 22.2 | 14.7 | 15.5 | 21.8 | … |
| Philippines | 15.9 | 17.8 | 18.2 | 18.8 | -3.9 | 21.4 | 12.1 | 14.4 | 18.3 |
| Singapore | 115.8 | 121.4 | 127.3 | 129.2 | 17.2 | 3.2 | 4.9 | 9.9 | 11.6 |
| Taipei,China | 253.3 | 257.1 | 260.4 | 261.6 | 17.0 | 4.8 | 1.5 | 2.8 | 3.3 |
| Thailand | 50.7 | 53.7 | 56.4 | 60.0 | 18.5 | 4.2 | 6.0 | 11.3 | 18.4 |
| Viet Nam | 9.1 | 10.7 | 10.7 | … | 13.1 | 28.5 | 18.7 | 18.7 | … |
| **Emerging East Asia** | **1,706.1** | **1,795.4** | **1,888.3** | **1,951.7** | **29.9** | **16.6** | **5.2** | **10.7** | **14.4** |
| Japan | 834.3 | 837.7 | 849.8 | 866.5 | 25.7 | 0.0 | 0.4 | 1.9 | 3.9 |
| **East Asia** | **2,540.4** | **2,633.1** | **2,738.1** | **2,818.2** | **28.3** | **10.6** | **3.6** | **7.8** | **10.9** |

. . . = not available
Sources: *International Financial Statistics Online* (IMF), Institute of International Finance, Inc., and Ministry of Finance (Japan).

Box 2: **Official Foreign Exchange Reserves: How Much is Enough?**

After a period of rapid reserve accumulation, many emerging market economies in East Asia and elsewhere now hold very large stocks of foreign exchange reserves, straining traditional reserve management practices and creating pressure to enhance return on reserve assets. Increasingly, countries are employing independent agencies and external managers to cope with more sophisticated management of reserve tranches invested in less liquid assets with higher return, but also higher risk. Moreover, in many emerging economies, the once obscure practice of reserve management is now a subject of public debate and scrutiny, with frequent calls for novel uses. Some of these might have macroeconomic policy implications—such as proposals to invest some portion of reserves in domestic assets. Behind this desire to put reserves to more productive use is an implicit perception that reserves are more than adequate. This leads naturally to the question: What is an adequate level of reserves?

Traditionally, as part of an overall policy to promote macroeconomic stability, an adequate level of reserves is held to maintain foreign currency liquidity and reduce vulnerability to external shocks. For the open economies of emerging East Asia, end-2005 reserves in months of imports are given in column "(3)" of Table B2. In recognition of the greater role of capital flows in triggering the currency crises of the 1990s, reserve adequacy measures evolved beyond the 3-months-of-imports benchmark associated with fixed exchange rate regimes and closed capital accounts in the 1970s and 1980s. For the open economies of emerging East Asia, end-2005 reserves in months of imports are given in column "(3)" of Table B2.

There are two basic alternative concepts for reserve adequacy. The first concept focuses on the need for precautionary reserves as insurance against the external drain of anticipated capital outflows in the event of a temporary loss of international capital market access. Empirical work supports the ratio of reserves to short-term external debt, by residual maturity, as the most significant reserves-related leading indicator of currency crises, although estimated critical values can differ from the general rule-of-thumb value of 1.0.[1] Actual reserves to short-term debt—column "(4)" —exceed this level by a large margin for the region's economies, in part because reserves have climbed, but also because short-term external debt has shrunk.

An alternative concept of adequacy for potential internal drain or domestic capital flight is reserves as a percent of broad money (M2). This measure is less widely used, enjoys less empirical support,[2] and lacks a rule-of-thumb minimum ratio. Still, the three hardest hit economies during the Asian financial crisis of 1997/98 (Indonesia, Korea, and Thailand) had outflows of 18–28% of M2. Reserves of the emerging market economies of East Asia generally lie within or exceed this range as well—column "(5)".[3] Remarkably, despite the perception of East Asian economies as outliers in their tendency to hold large excess reserves, only Malaysia and Korea exceed the median value for 53 emerging economies for all three rules of thumb.

In addition to these simple measures, which emphasize different vulnerabilities, there are more comprehensive measures such as a "liquidity-at-risk" indicator of reserve adequacy that combines measures of expected external and potential internal sources of drain on reserves. To the desired coverage of short-term external debt is added a potential capital flight measure constructed as M2 multiplied by (i) a factor that gauges vulnerability by the exchange rate regime and (ii) a country risk factor reflecting macroeconomic fundamentals.

[1]ADB. 2005. *Early Warning Systems for Financial Crises: Applications to East Asia*, p. 59. In that study, for the sample period 1970–1995, the threshold minimum levels for reserves to short-term debt were 0.51 for Indonesia, 0.23 for Korea, 1.82 for Malaysia, 0.8 for the Philippines, 0.16 for Singapore, and 0.54 for Thailand. Reserves below these minimum levels suggest a heightened crisis probability.

[2]See IMF. 2000. *Debt- and Reserve-Related Indicators of External Vulnerability*, pp.14–15.

[3]See Kim et al. 2005. *Reserve Adequacy in Asia Revisited: New Benchmarks Based on Size and Composition of Capital Flows*, Table 9. Such a range is not necessarily optimal as (i) those outflows were mainly related to short-term debt—now much lower in most emerging markets, (ii) the risk of such severe crises is not uniform across emerging markets, and (iii) such reserve levels may be costly to hold or problematic to accumulate if they—and the associated interventions—become high relative to the monetary base or level of public debt.

Table B2: **2005 Indicators of Reserve Adequacy for Emerging East Asia**

| Economy by Exchange Rate Regime[1] | Risk [2] | Actual Reserves | | | | Adequate Reserves Indicator[3] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| | 0 to 1, 1=high risk | ($ billion) | months of imports (GSI) | /short-term external debt | % M2 | ($ billion) | months of imports (GSI) | /short-term external debt | % M2 | Excess reserves ($ billion) | % Excess |
| **Currency Board** | | | | | | | | | | | |
| Brunei Darussalam[4] | … | 0.5 | … | 1.8 | 9.0 | … | … | … | … | … | … |
| Hong Kong, China | 0.24 | 124.2 | 3.8 | 1.8 | 27.2 | 80.7 | 2.5 | 1.2 | 17.6 | 43.6 | 35.1 |
| **Peg or Tight Band** | | | | | | | | | | | |
| PRC | 0.32 | 821.5 | 13.3 | 13.4 | 22.6 | 408.5 | 6.6 | 6.7 | 11.2 | 413.0 | 50.3 |
| Malaysia | 0.31 | 69.9 | 6.5 | 4.5 | 41.5 | 31.1 | 2.9 | 2.0 | 18.5 | 38.8 | 55.5 |
| **Managed Float/Low Access** | | | | | | | | | | | |
| Cambodia | 0.79 | 1.0 | 2.3 | 25.1 | 79.4 | 0.0 | 0.1 | 1.0 | 3.2 | 0.9 | 96.0 |
| Lao PDR | 0.75 | 0.2 | 3.5 | 4.1 | 46.9 | 0.1 | 0.8 | 1.0 | 11.4 | 0.2 | 75.7 |
| Myanmar | 0.86 | 0.8 | 2.3 | 1.1 | 55.3 | 0.7 | 2.2 | 1.0 | 52.4 | 0.0 | 5.2 |
| **Managed Float/ Higher Access** | | | | | | | | | | | |
| Indonesia | 0.60 | 33.0 | 3.8 | 1.9 | 26.6 | 32.5 | 3.8 | 1.8 | 26.2 | 0.5 | 1.6 |
| Singapore | 0.11 | 115.8 | 6.2 | 1.5 | 87.7 | 80.2 | 4.3 | 1.0 | 60.8 | 35.6 | 30.7 |
| Taipei,China | 0.22 | 253.3 | 18.4 | 7.5 | 33.3 | 68.0 | 5.0 | 2.0 | 8.9 | 185.3 | 73.2 |
| Thailand | 0.37 | 50.7 | 4.3 | 4.6 | 26.6 | 25.2 | 2.2 | 2.3 | 13.2 | 25.5 | 50.3 |
| Viet Nam | 0.60 | 9.1 | 3.1 | 4.3 | 22.1 | 7.0 | 2.4 | 3.3 | 17.2 | 2.0 | 22.4 |
| **Independent Float** | | | | | | | | | | | |
| Korea | 0.27 | 210.3 | 7.8 | 4.0 | 38.0 | 67.4 | 2.5 | 1.3 | 12.2 | 142.9 | 68.0 |
| Philippines | 0.57 | 15.9 | 3.3 | 1.6 | 30.6 | 13.2 | 2.7 | 1.3 | 25.3 | 2.8 | 17.3 |
| **Total/Median (Emerging East Asia)** | 0.37 | 1,706.1 | 3.8 | 4.1 | 32.0 | 814.5 | 2.6 | 1.3 | 17.2 | 891.1 | 49.5 |
| **Total/Median (53 emerging markets)[5]** | 0.44 | 2,783.8 | 5.1 | 3.5 | 33.6 | 1,416.6 | 3.0 | 1.6 | 20.8 | 1,366.7 | 42.5 |
| **Total/Median (Selected OECD)[6]** | 0.08 | 1,116.0 | 1.8 | 0.3 | 7.5 | … | … | … | … | … | … |

. . . = not available
[1]Classifications as of 31 Dec 2005, based on actual, de facto arrangements as determined by IMF staff.
[2]On a scale of 0 to 1, with higher scores indicating greater risk of sovereign default. Derived from the September 2005 Institutional Investor Country Credit Ratings, pp. 143–148.
[3]Equals short-term external debt + a fraction of M2. The fraction is a % of M2 (30% for pegs and bands, 0% for managed float with low capital market access, 10% for managed floats with higher access, 10% for independent floats and currency boards) multiplied by the country risk rating factor in column (1).
[4]Risk rating and 2005 import data are unavailable.
[5]The 14 economies of emerging East Asia plus 39 other emerging market economies that were among those holding the largest levels of reserves at end-2005.
[6]Selected OECD economies include the following non-euro zone developed economies with exchange rates classified as independent floats: Australia, Canada, Japan, New Zealand, Norway, Sweden, Switzerland, United Kingdom, United States. Excluding Japan, reserves were $282 billion at end-2005.
Source: www.imf.org/external/np/mfd/er/2005/eng/1205.htm

The less flexible the exchange rate, and the more likely is capital flight, the larger the level of reserves required to instill confidence in its stability and deter capital flight in a crisis. Column "(6)" provides the resulting calculations of adequate reserves. By this indicator, a majority of these economies hold reserves well in excess of that deemed adequate to meet liquidity needs in the event of a capital account crisis.

These results are indicative only and other factors may play important roles in determining desired reserve levels. However, levels of reserves held by many monetary authorities, regionally and globally, appear substantially larger than actual foreign currency liquidity needs. This tendency seems greater among economies with less flexible exchange rates, although it may sometimes reflect recently large and temporary current account inflows or greater risk aversion as a result of past crises. Whatever the reason, the notion that many monetary authorities are holding excess reserves—beyond precautionary needs—is a widely held view, giving rise to questions about what to do with the excess reserves.

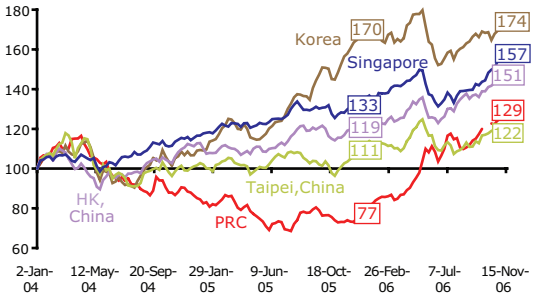
Because precautionary reserves are generally held in safe, liquid assets, and many emerging market economies have large unaddressed needs for public goods, calls are inevitable for more productive investment of excess reserves in higher-return foreign assets or, more controversially, in high-quality domestic investment projects.

Increasingly, countries are adopting the first option under reserve management strategies, although not without costs, including, higher operational risks. The second strategy would require converting reserves to local currency—reducing foreign currency reserves by the amount of the desired investment. There are, potentially, many benefits to such schemes. However, if excess reserves arise out of a policy of intervention to manage exchange rates, then reconverting the excess reserves to local currency will tend to undermine that policy. Thus, decisions to redeploy portions of reserves should be made in the context of a total macroeconomic policy framework, including the need for changes, if any, in the exchange rate regime.

[4]De Beaufort, Wijnholds, and Arend Kapteyn. 2001. *Reserve Adequacy in Emerging Market Economies*, IMF WP/01/143, www.imf.org.

## Financial and Exchange Markets

Figure 12a: **Composite Stock Price Indexes[1]—NIEs and PRC**
(weekly average, first week of January 2004 = 100, local index)

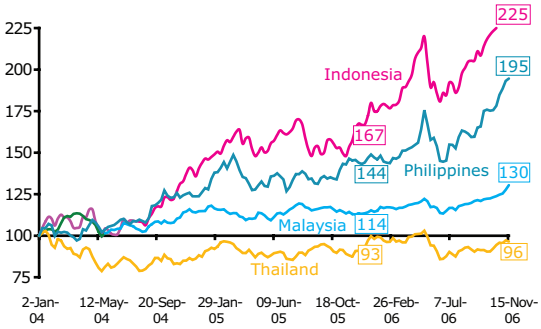



[1] Weekly averages of Hang Seng (Hong Kong, China), PCOMP (Philippines), KOSPI (Korea), STI (Singapore). The PRC Index is based on the Shanghai and Shenzhen composite indexes, weighted by their respective market capitalization.
Source: OREI staff calculations based on Bloomberg data.

Uncertainty about the path of US policy and long-term rates generated significant financial market volatility in 2006, especially in May–June when increased inflation expectations nudged up long-term US interest rates. This trend was evident in key equity markets in the region (Figures 12a–12b). Despite sharp corrections over that 2-month period, the Indonesian and the Philippine stock market indexes gained 43% and 35% respectively through 15 November—on top of already respectable gains in 2005. Only PRC stock indexes gained more—close to 70%—over the same period, in part because the government lifted a moratorium on new stock issuance. Gains were more limited on Korean stock markets, but were strong in 2005.

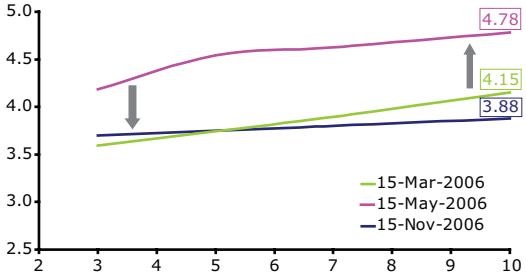
Emerging East Asian local currency bond markets were similarly strong and bonds outstanding continued to grow rapidly—to $2.4 trillion by mid-2006 from $2.0 trillion at end-2005. Growth

Figure 12b: **Composite Stock Price Indexes[1]—ASEAN-4** (weekly average, first week of January 2004 = 100, local index)




[1] Weekly averages of JCI (Indonesia), KLCI (Malaysia), TWSE (Taipei,China), and SET (Thailand).
Source: OREI staff calculations based on Bloomberg data.

Figure 13: **Malaysia Benchmark Yields** (% per annum)

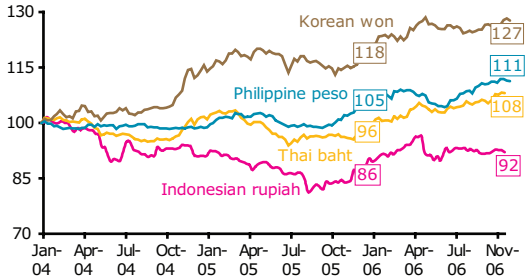



Source: Bloomberg.

was strongest in the PRC, at 22% over the 6 months, because of rapid issuance of central bank bonds to absorb excess liquidity. There was also large public issuance in Thailand and Viet Nam to finance infrastructure projects and in Korea to finance defense projects. In the Philippines, in contrast, local currency government bonds outstanding fell as very successful foreign currency issues combined with better-than-expected revenue collection to reduce local public financing needs. Corporate bond issuance across the region also expanded robustly, aided in some cases by market reforms. Issues were frequently oversubscribed, and buoyant investor demand (including demand for Islamic bonds) generally lifted bond prices. As a result, in the third quarter of 2006, yield curves shifted down from levels reached in response to May-June 2006 volatility, and flattened once again. Although specific country trends vary, the yield curve for Malaysia illustrates the general tendency (Figure 13).[4]

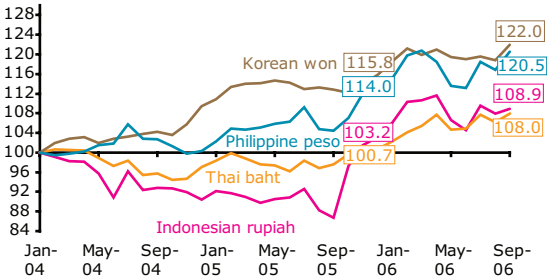
Strong capital inflows, meanwhile, put strong upward pressure on regional currencies in 2006—although reserve accumulation partially mitigated these pressures—and most appreciated against the US dollar. Exceptions included the Japanese yen and Vietnamese dong, which remained broadly stable. The Indonesian rupiah, Korean won, Philippine peso, and Thai baht rose most, in both nominal and in real effective terms (Figures 14a, 14b). These economies also saw faster reserve accumulation than in 2005, an indication of substantial inflows and appreciation pressures. Despite a large current account surplus and net capital inflows, the yuan rose only 2.4% from January–October 2006.

Figure 14a: **Exchange Rate Indexes** (weekly average, first week of Jan 2004 = 100, $/local currency[1])




[1]An increase is an appreciation.
Source: OREI staff calculations based on Bloomberg data.

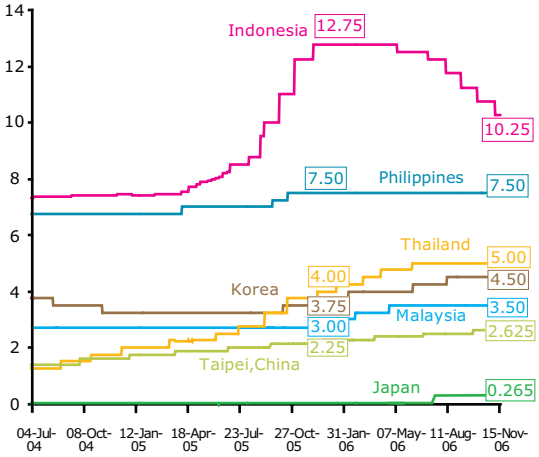
Figure 14b: **Real Effective Exchange Rate** (Jan 2004 = 100, $/local currency[1])




[1] An increase is an appreciation.
Source: OREI staff calculations based on Bloomberg data.

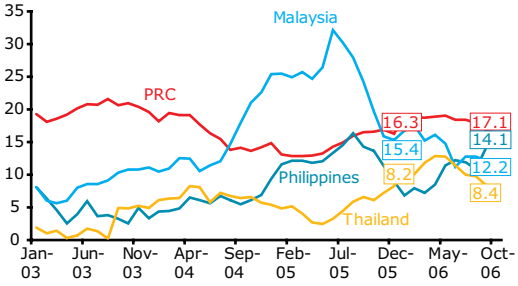
[4]For more details about bond market trends and a theme chapter on bond market liquidity, please see the November 2006 *Asia Bond Monitor*, available at asianbondsonline.adb.org.

Figure 15: **Policy Rates**[1] (% per annum)




[1]Overnight call rate (Korea); overnight policy rate (Malaysia); reverse repurchase (repo) rate (Philippines); official discount rate (Taipei,China); 14-day repo rate (Thailand).
Sources: Bloomberg and CEIC.

Figure 16: **Liquidity Growth**[1] (y-o-y,%)




[1]Liquidity = M2.
Sources: Bloomberg and CEIC.

## Monetary and Fiscal Policy

As inflationary pressures subsided and with US policy rates unchanged since late June 2006, increases in regional policy interest rates slowed considerably in the second half of 2006, after substantial tightening in the first. Japan lifted its zero interest rate policy and raised its overnight call rate 25 basis points in July 2006, while Korea in August hiked rates amid persistent inflationary pressures and Taipei,China moved to bring rates closer to neutral despite some weakening in domestic demand (Figure 15).

The exception to this trend was the PRC, where authorities stepped up efforts to reduce liquidity amid signs of accelerating investment growth in the second quarter. Lending rates were raised for a second time in the year—by 27 basis points in August 2006—deposit rates were put up, and reserve requirements were raised several times. Elsewhere in the region, rates generally held steady, although Indonesian authorities, since May, continued to gradually reduce rates. And in the Philippines, although official rates were unchanged, authorities loosened monetary policy by re-introducing tiered interest rates for banks' deposits with the central bank, a move aimed at stimulating bank lending.

Despite the slowdown in policy adjustments, monetary conditions continued to tighten in much of the region as a result of sustained exchange rate appreciation. The effect on inflation tended to be more significant in economies that have larger trade sectors relative to the size of the economy. In some cases, such as Singapore, the exchange rate has had a more important effect than the interest rate (Box 3). Liquidity growth, as measured by the growth in money supply, also tapered off in several economies, although more so in some than others (Figure 16). This mirrored the tightening in terms of the price of currency (interest and exchange rates).

Trends in fiscal policy varied across East Asia in 2006, with some economies adopting tighter measures, while others expanded deficits (Table 3). However, most governments were prudent. In the PRC, strong revenue growth matched expenditure growth, keeping the fiscal deficit low. Indonesia maintained a small, but mildly expansionary deficit, as did Korea, and Viet Nam ran a somewhat larger deficit. In contrast, Cambodia, Malaysia, and Philippines continued efforts to reduce deficits, while Hong Kong, China's fiscal performance has improved significantly since 2003.

Table 3: **Fiscal Balance of Central Government** (% of GDP)

| | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|
| Cambodia | -6.0 | -4.7 | -3.4 | -3.0 | ... |
| China, People's Rep. of | -2.2 | -1.3 | -1.2 | -1.0 | ... |
| Indonesia | -1.7 | -1.3 | -0.9 | -1.3[1] | -1.1[3] |
| Korea, Rep. of | 0.2 | -0.5 | -0.6 | -1.4 | ... |
| Malaysia | -5.3 | -4.3 | -3.8 | -3.5[2] | -3.4[3] |
| Philippines | -4.6 | -3.8 | -2.7 | -1.2[4] | -0.9 |
| Singapore[5] | 6.5 | 5.5 | 6.5 | 4.3 | ... |
| Taipei,China[5] | -3.0 | -2.1 | -1.8 | -2.5 | -2.0 |
| Thailand[5] | 0.6 | 0.3 | 0.2 | 0.1[2] | ... |
| Viet Nam | -4.3 | -2.0 | -2.3 | -2.6 | ... |

. . . = not available
[1]revised budget, [2]revised estimate, [3]budgeted, [4]January–September 2006, [5]fiscal year.
Sources: National sources; *Asian Development Outlook 2006* (ADB); Economist Intelligence Unit; International Monetary Fund; and World Bank.

Thailand—where expenditure was held back for part of the year due to the political impasse—is expected to have a balanced budget for 2006.

Table 4: **Public Sector Debt** (% of GDP)

| | 2003 | 2004 | 2005 | 2006 |
|---|---|---|---|---|
| China, People's Rep. of | 19.2 | 18.5 | 17.9 | 17.3[p] |
| Indonesia[1] | 58.3 | 55.7 | 46.5 | 40.9[p] |
| Korea, Rep. of[1] | 22.0 | 25.2 | 29.6 | 32.3[p] |
| Malaysia | 68.9 | 66.7 | 59.2[e] | 57.8[p] |
| Philippines[2] | 101.3 | 96.1 | 90.0[e] | 83.7[p] |
| Taipei,China[1] | 30.3 | 31.3 | 31.9 | . . . |
| Thailand | 49.4 | 47.5[p] | 45.9[p] | . . . |
| Viet Nam | 40.8 | 42.7 | 43.7 | 45.5[p] |

. . . = not available, p = preliminary, e = estimate

Notes:
[1] Central government debt.
[2] Nonfinancial public sector debt.
Sources: IMF Article IV Consultations (various issues), Bank of Thailand, National Statistics (Taipei,China), Department of Statistics (Singapore).

In most East Asian economies, public finances are relatively strong, and several governments have reduced public debt since 2004 (Table 4), partly as a result of reducing fiscal deficits. Nonetheless, Indonesia (which has markedly reduced its public debt) and the Philippines remain fiscally vulnerable to financial turbulence because of its still-high levels of public debt and weaker financial systems. Japan's high domestic debt levels also leave it vulnerable to rising interest rates. Moreover, in other economies, such as the PRC (where official public debt is below 20% of GDP) there are significant contingent liabilities. The International Monetary Fund (IMF) estimates, for example, that nonperforming loans (NPLs) and pension fund liabilities could add more than 30% to PRC's public debt over the next several years—with external borrowings of state enterprises an additional potential public liability. That said, the region's public sectors still enjoy relatively strong sovereign ratings and exceptionally low sovereign risk premiums on internationally traded government bonds. In some cases, such as Malaysia, there are significant government assets that partially mitigate the vulnerabilities posed by high levels of gross debt.

Box 3: **Monetary Conditions in East Asia: The Relative Importance of Interest and Exchange Rates**

The July 2006 *Asia Economic Monitor* (AEM) explored the use of a monetary conditions index (MCI) to assess the effects of interest rate and exchange rate changes on domestic monetary conditions in the region.[1] In large open economies—where trade is small relative to overall output—the interest rate is the primary determinant of monetary conditions. In smaller open economies, however, exchange rates are as important because of their impact on (i) domestic inflation, given the pass-through from imported prices, and on (ii) output, given the impact on net exports. An MCI tracks monetary conditions by combining both interest rate changes and the effect of exchange rate movements computed in percentage points.[2]

Figures B3a–B3i compute trends in monetary conditions since June 2004, when the US Federal Reserve began its most recent tightening cycle.[2] Each figure tracks deviations in (i) the money market rate for its level in June 2004, (ii) the nominal effective exchange rate (NEER) from its June 2004 level, and (iii) the MCI, calculated using CLSA Asia Pacific estimates.

The figures reveal significant variation in the extent of monetary tightening across the region and the relative importance of interest and exchange rates. This variation arises from differences in economic structure, economic conditions, and monetary policy objectives. For most economies in the region, appreciating exchange rates mean that monetary conditions are tighter than implied by adjustments in interest rates alone.

In East Asia, economies can be roughly divided into three groups based on the extent of movement in the MCI. In the first group of three economies, there were almost no changes in nominal interest rates or overall monetary conditions. In Japan, a large developed economy, significant depreciation

[1] "Box 3: Monetary Policy Options for Emerging East Asia," *Asia Economic Monitor*, July 2006.

[2] An MCI is constructed by estimating the effect on inflation of both a 1 percentage point (pp) change in the interest rate and a 1 pp change in the exchange rate. The ratio of these two estimates gives the interest rate equivalent of a 1 pp change in the exchange rate. A table of these estimates, computed for East Asian economies by CLSA Asia Pacific (The Ifofax, 10 July 2006, www.clsa.com.), was included in the July 2006 *Asia Economic Monitor*.

Figure B3: **Monetary Conditions Indexes for Selected East Asian Economies**

Figure B3a: **Japan**—A 1% change in NEER has the same effect on prices as a 3 basis points (bp) change in the interest rate.

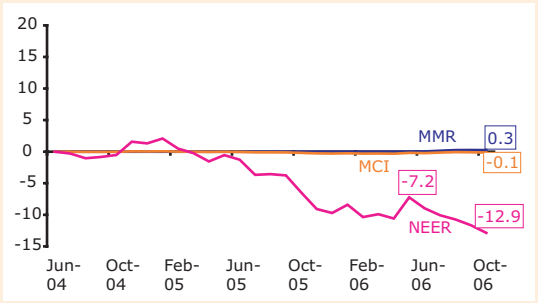



Figure B3b: **Malaysia**—A 1% change in NEER has the same effect on prices as a 68 bp change in the interest rate.

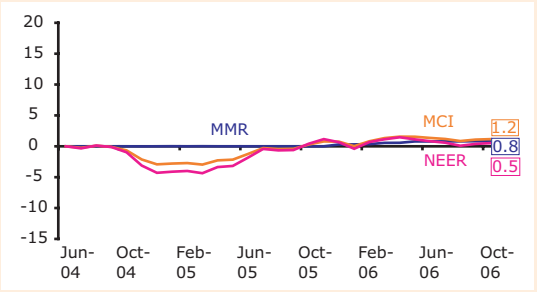
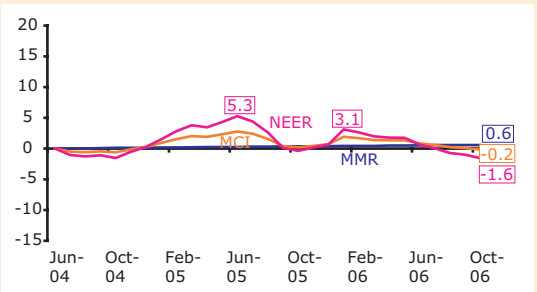



Figure B3c: **Taipei,China**—A 1% change in NEER has the same effect on prices as a 48 bp change in the interest rate.



of the NEER had little effect on actual monetary conditions. In the smaller, more trade-dependent economies of Malaysia and Taipei,China, the MCI is more influenced by the NEER, which itself showed little change from June 2004. For Japan and Taipei,China, very low inflation permitted a relatively more accommodative stance. For Malaysia, with elevated inflation stemming from, at least in part, the pass-through of energy costs to administered prices, an accommodative monetary stance mitigated the impact of the gradual reduction of the fiscal deficit.

A second group of economies experienced a tightening of monetary conditions roughly on the order of magnitude of the US, which tightened interest rates by 425 basis points (bp).[3] In Hong Kong, China, a weak NEER mitigated the effect of increases in interest rates on monetary conditions. In contrast, in the Philippines, with little movement in the interest rate, an appreciating exchange rate tightened monetary conditions. In Indonesia, both interest rates and exchange rates were important to monetary conditions. In the lead-up to the August 2005 mini-crisis, a depreciating NEER loosened monetary conditions until steep interest rate hikes reversed the NEER. The combined effect sharply tightened monetary conditions, before they stabilized and then eased.

In the third group of economies, monetary conditions tightened much more significantly relative to the US and other economies in the region. In each case, increases in the interest rate and in the exchange rate contributed to a higher MCI. In Thailand, changes in monetary conditions smoothly tracked rising interest rates until 2006, when a rising NEER pushed the MCI higher. In the very open Singaporean economy, where exchange rates have a more important impact on the economy

[3]In the US, as in Japan, monetary conditions are little influenced by exchange rate movements. In this context, monetary conditions refer to the effects of money on the aggregate economy. For large economies, the external sector tends to be relatively small and the effect of domestic interest rates on aggregate demand tends to be dominant. In contrast, for smaller economies such as Canada or New Zealand, in which external demand plays a more important role, exchange rate movements can more significantly impact domestic inflation.

Figure B3d: **Hong Kong, China**—A 1% change in NEER has the same effect on prices as a 45 bp change in the interest rate.

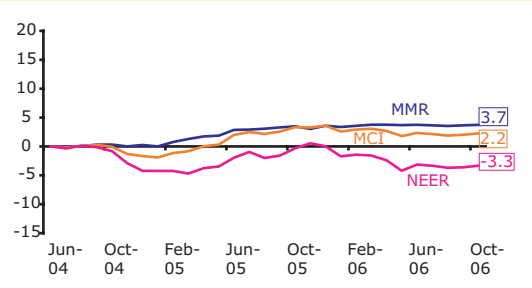



Figure B3e: **Philippines**—A 1% change in NEER has the same effect on prices as a 42 bp change in the interest rate.

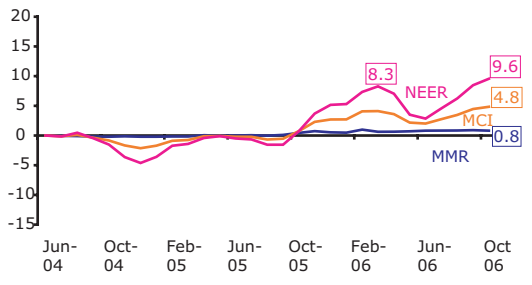
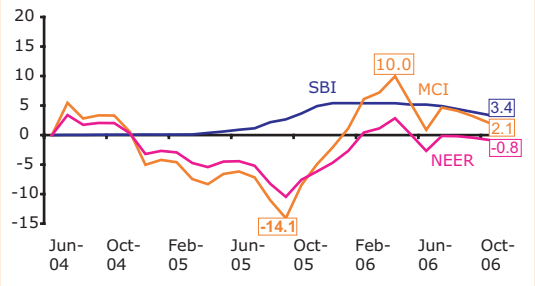



Figure B3f: **Indonesia**—A 1% change in NEER has the same effect on prices as a 160 bp change in the interest rate.



than the interest rate, the effect of a rising NEER was magnified and monetary conditions have tightened by nearly 900 bp since June 2004. In Korea, a larger, less export-leveraged economy, the effect of a sharp NEER appreciation contributed to a still-large increase of 750 bp in monetary conditions from June 2004.The inflation-targeting Bank of Thailand, which moved aggressively to contain rising core inflation with rate hikes in the first half of 2006, held rates steady in the second as domestic demand weakened and NEER-induced tightening helped to lower inflation. Similarly, in Korea, the combination of imported inflation and a nascent domestic recovery made the exchange rate an effective means of tightening.

Figure B3g: **Thailand**—A 1% change in NEER has the same effect on prices as a 33 bp change in the interest rate.

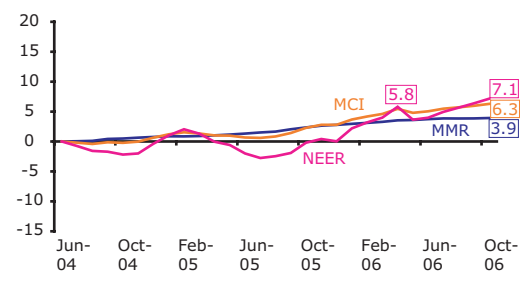



Figure B3h: **Singapore**—A 1% change in NEER has the same effect on prices as a 119 bp change in the interest rate.

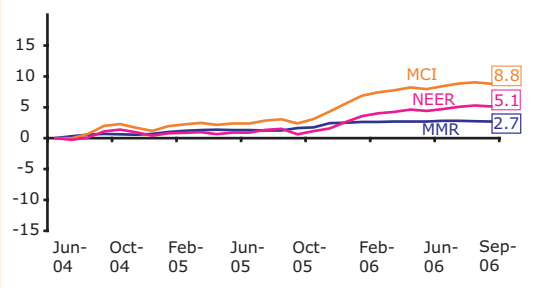
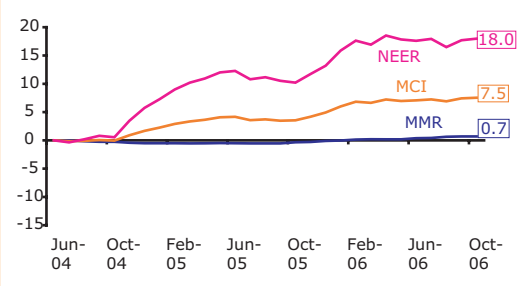



Figure B3i: **Korea**—A 1% change in NEER has the same effect on prices as a 38 bp change in the interest rate.




Notes: The money market rate (MMR) is the interbank overnight rate (period average)—Malaysia; Taipei,China; and Thailand; the uncollateralized overnight rate (period average)—Japan; the weighted average rate on all maturities of uncollateralized call rates (period average)—Korea; the 3-month interbank rate (end of period)—Singapore; the Hong Kong Interbank Offered Rate (the middle closing rates quoted by Standard Chartered Bank for the interbank money market)—Hong Kong, China; the weighted average (weighted by loan amount) of overnight rates on loans to banks and nonbank financial institutions—Philippines; and the 1-month rate of Bank Indonesia certificate (end of period)—Indonesia.

Sources: For MMR—Bangko Sentral ng Pilipinas, Bank Indonesia, Bank Negara Malaysia, Bank of Japan, Bank of Korea, Bank of Thailand, Central Bank of China (Taipei,China), Hong Kong Monetary Authority, Monetary Authority of Singapore; For NEER—Bank for International Settlements; For MCI—OREI staff calculations using CLSA Asia Pacific estimates.

# Assessment of Financial Vulnerability[5]

The array of indicators used to assess financial sector performance (Box 4) have been grouped into three categories: (i) prudential indicators help measure financial system performance and banks' ability to withstand shocks; (ii) activity indicators illustrate the level of bank lending operations; and (iii) market indicators show how financial market participants view asset values.

## Prudential Indicators

Across much of the region, continued strong growth kept financial market conditions quite favorable, despite modest monetary tightening and short-lived market turbulence in May–June 2006. NPL ratios continued to fall, rates of return on assets (ROA) and bank equity (ROE) were generally sustained at highly competitive levels, provisioning ratios increased or remained high, and risk-weighted capital adequacy ratios (CARs) among banks remained well above the international 8% norm.[6] With the exception of Taipei,China, financial sector indicators were strong in early 2006, though economies differed with regard to remaining NPLs and risk-weighted capital ratios.

The key factors driving these improvements were progress in resolving impaired assets from the 1997/98 financial crisis (Indonesia, Korea, Malaysia, Thailand); addressing problems from large credit card receivables in the early 2000s (Korea); or resolving much earlier bank-related issues (Japan). With specific provisioning for losses largely completed, profits and returns have bounced back. Higher earnings have been used to strengthen capital cushions. In Taipei,China, however, the recent weakening of these indicators emanated from large losses attributed to the sharp increase in credit card delinquencies.

[5] In previous issues of the *Asia Economic Monitor,* this section focused on progress in the region's financial sector restructuring following the 1997/98 crisis. With financial sector restructuring now largely complete, assessment of financial vulnerability now takes a broader perspective paying particular attention to issues related to financial stability, the challenges associated with ongoing financial innovation and liberalization, and the adoption of new Basel II capital standards. The range of indicators used in this section has also expanded to include measures of financial strength and soundness; in addition, use of market data has increased, including views of credit rating agencies, and equity market valuations.

[6] Economies whose banks are required to hold risk-weighted capital ratios of 8% are PRC; Hong Kong, China; Indonesia; Korea; Malaysia; and Taipei,China. In the case of Philippines, Singapore, and Thailand, banks are required to hold risk-weighted capital ratios of 10%, 10%, and 8.5%, respectively.

Box 4: **Indicators for Assessing Financial Sector Vulnerability**

Extending the previous *Asia Economic Monitor* analysis, a wider set of financial indicators are used to assess financial sector vulnerability in East Asian economies. These indicators are classified into three groupings:

•prudential indicators: covering the core set of prudential and related indicators,[1] such as regulatory[2] CARs (Basel I Risk-Weighted Capital Ratios),[3] NPL (or asset) ratios, provisioning ratios, rates of ROA and ROE, and non-risk-weighted CARs;[4]

•activity indicators: tracking the level and structure of financial sector activity as reflected in loan activity, loan deposit ratios, securities investments, and the division of loan portfolios into mortgage and non-mortgage related household lending and business lending; and

•market indicators: giving the market's assessment of financial system strength as reflected in the views of credit rating agencies and the market value of financial sector stocks. Particular attention, in this context, is paid to how major rating agencies rate financial institutions' strength and to their qualitative assessments of financial system soundness.[5]

Several observations can be made about the three groups of indicators:

Prudential indicators provide the key measure of financial system strength and soundness. Generally, financial systems with high regulatory capital ratios, strong asset quality, high levels of provisioning, and high and stable core[6] profitability are seen as "safer and sounder" than those with lower values. However, the usefulness of these official measures critically depends on the strength of accounting systems and the effectiveness of supervisory and regulatory regimes in ensuring the accurate and timely identification of—and provisioning for—impaired assets. Any shortcomings in these areas (for example, in recognizing impaired assets or the accrual of non-received interest) can lead to the overstatement of returns and regulatory capital cushions.

Prudential indicators also do not directly provide information about the strength and robustness of risk management systems, which arguably are the key underlying factors contributing to the "safety and soundness" of financial institutions. For these, and other reasons, the indicators are supplemented by market indicators, which provide market assessment of financial system safety and soundness as given by credit rating agencies and stock market valuations. Any significant discrepancy between prudential and market indicators—such as between stock market valuations and reported returns, or between officially reported impaired assets and credit rating agency estimates—is a potential source of concern.

Although efforts are being made by international bodies to encourage standardization in the reporting of prudential indicators, countries differ significantly in the criteria they use to classify impaired assets,[7] whether nonperforming asset data is

[1]These indicators are similar to—but less comprehensive than—the financial stability indicators constructed by the International Monetary Fund and World Bank.

[2]Regulatory capital is defined as the capital recognized by the authorities for regulatory purposes, and in general will differ from the book value of capital as defined in financial statements and the stock market value of a financial institution.

[3]A number of economies in the region further divide regulatory capital into Tier I, II, and Tier III capital, in line with the approach taken in the Basel Capital Adequacy framework.

[4]In both the Basel I and II frameworks, the amount of regulatory capital an institution is required to hold is linked to the risk profile of its assets, with some assets receiving a zero credit risk weight. The non-risk adjusted capital ratio is defined as the ratio of regulatory capital to total assets that are not weighted for risk.

[5]Major rating agencies also rate financial institutions' local and foreign currency debt. Because such ratings provide the agencies' assessment of the risk of the particular debt issues, they do not represent an overall assessment of an institution's financial strength and soundness.

[6]Core profitability typically refers to profits associated with an institution's core activities. In the case of several banking systems in the region, core profitability refers to the regular income from lending operations (net of provisioning) and excludes certain fee-based income and exceptional returns from securities investments.

[7]Not only whether a 3- or 6-month rule is used to classify a loan as nonperforming, but also more generally to specific provisioning and the treatment of accrued interest.

provided in gross terms or is net of specific provisioning, and in the way in which regulatory capital is measured. Moreover, some economies in recent years have made significant changes to the criterion used to assess asset quality and in the amount of regulatory capital to be held in relation to market risk. In these circumstances, care is needed in comparing financial indicators across countries and over time.

Differences between reported regulatory risk to weighted and unweighted assets in principle provide information on the risk in a financial institution's asset portfolio as well as its overall leverage. Reflecting the zero credit risk weight attached to own-sovereign claims in the Basel I framework, financial institutions that hold substantial local public sector debt will typically have unweighted capital ratios that are well below weighted ratios.

Activity indicators are intended to provide information on the main sources of financial sector return and variability over time. Traditionally, banking systems have derived net income from differences between interest rates on deposits and interest rates on loans to businesses (net of costs). Increasingly, however, financial systems in the region have been moving into new areas such as household and mortgage lending, and have been deriving increasing shares of their income from securities investments and various off-balance sheet activities. Generally, these changes lead to modifications in the risk and return profile of financial institutions and expose institutions to new and different risks. Tracking such changes is important to an assessment of financial system soundness.

Market indicators, as noted, are intended to supplement the other indicators and provide an independent, market-based assessment of financial system soundness. Both formal (as reflected in ratings) and qualitative assessments of rating agencies on financial system strength are considered, with particular attention given to financial institution strength ratings. The latter take into account not only the inherent strengths and weaknesses in financial institutions, but also the stability of the macroeconomic environment in which they operate and an assessment of the effectiveness of supervisory and regulatory regimes in ensuring the appropriate provisioning for asset quality. Institutions that receive A or B ratings for financial strength are regarded as exceptionally strong while ratings in the D and E range point to actual or potential weaknesses.[8]

**What is Basel II?**

Basel II is a revised capital adequacy framework endorsed by the G-10 in June 2004 and is scheduled to replace the Basel I framework by the end of 2006. The Basel II framework aims to improve risk measurement by adjusting and refining traditional capital adequacy measures. The potential market impact of Basel II is to make banks more risk conscious.

Implementing the new framework beginning the end of 2006 poses challenges to many countries in East Asia, most of which are in early stages of building systematic databases compatible with Basel II, developing ratings models, and improving the integrity of risk management systems.

The Bank for International Settlements expects that by 2009, more than 70% of total banking assets in the region will be subject to Basel II. An important concern of East Asian bank regulators is whether the Basel II framework is suited to their specific markets and whether Basel II changes are sufficient to cover banks' risk exposure.

[7]This is with regard not only to whether a 3- or 6-month rule is used to classify whether a loan is nonperforming, but also more generally to specific provisioning and the treatment of accrued interest.

[8]This is the approach taken by Moody's Investor Services. See Moody's. 2006. *Bank Financial Strength Ratings: Revised Methodology*.

Despite significant improvement in NPL ratios, vulnerabilities remain. Shares of NPLs have declined significantly across the region since the 2001 recession (Table 5a). However, using wider definitions of distressed loans—such as including restructured loans—some banking systems still have significant NPL exposure. The percentage of impaired assets is now relatively low in Hong Kong, China; Korea; Malaysia; and Singapore, because these have banking systems with strong fundamentals. Thailand's NPL ratio is relatively stable, with slow NPL resolution and some lingering vulnerability to recurrent problems in restructured loans. In the PRC, faster NPL disposal and rapid growth of new loans contributed to the continued decline in NPL ratios through the first half of 2006. However, with relatively weak loan quality controls, banks remain vulnerable to the emergence of new NPLs. In Indonesia, NPLs are once again falling after the recovery from the 2005 financial mini-crisis. However, the high ratio of compromised assets leaves banks vulnerable to further instability. And in the Philippines, where asset quality is improving, banks nonetheless retain relatively high levels of distressed assets.[7]

Table 5a: **Nonperforming Loans** (percent of commercial bank loans)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006Q1 | 2006Q2 |
|---|---|---|---|---|---|---|---|
| China, People's Rep. of | ... | 21.6 | 17.8 | 13.2 | 8.6 | 8.0 | 7.5 |
| Hong Kong, China[1] | 6.5 | 5.0 | 3.9 | 2.3 | 1.4 | 1.3 | 1.3 |
| Indonesia | 12.1 | 8.1 | 8.2 | 5.7 | 8.3 | 9.4 | 8.8 |
| Japan | 7.6 | 8.8 | 8.2 | 5.6 | 3.8 | 3.1 | ... |
| Korea, Rep. of | 2.9 | 1.9 | 2.2 | 1.7 | 1.1 | 1.0 | 0.8 |
| Malaysia[1] | 10.5 | 9.3 | 8.3 | 6.8 | 5.6 | 5.6 | 5.4 |
| Philippines[1] | 16.4 | 15.0 | 14.1 | 12.7 | 8.5 | 8.0 | 7.2 |
| Singapore | ... | ... | 5.4 | 4.0 | 3.0 | 2.9 | ... |
| Taipei,China | 7.5 | 6.1 | 4.3 | 2.8 | 2.2 | 2.5 | 2.4 |
| Thailand | 10.5 | 15.7 | 12.8 | 10.9 | 8.3 | 8.1 | 8.3 |
| | | | | | | | |
| Memo items: compromised assets ratio (Indonesia) and distressed assets ratio (Philippines) | | | | | | | |
| Indonesia | 31.9 | 24.0 | 19.4 | 14.2 | 15.6 | ... | ... |
| Philippines | 28.6 | 27.9 | 27.1 | 25.2 | 19.3 | 19.1 | 18.3 |

...= not available.
[1]Reported NPLs are net of specific provisions.
Notes:
1. The table excludes NPLs transferred from bank balance sheets to asset management companies.
2. The measurement of NPLs follows official definitions and differs across economies depending on loan classification (for example, whether a 3–month or 6–month rule is used), the treatment of accrued interest, and whether specific provisioning is deducted from the NPL measure.
3. For Malaysia and the Philippines, reported NPLs are net of specific provisioning.
4. Compromised assets ratio includes reported NPLs, restructured loans, and foreclosed assets for the 16 largest banks in Indonesia; distressed asset ratio refers to the ratio of NPL + real and other properties owned and acquired (ROPOA) + restructured loans, current to total loan portfolio, gross + ROPOA.
Sources: National sources; CEIC; and *Financial Stability Report* (IMF).

[7]Indicators of impaired assets, estimated by major credit rating agencies, continue to be significant elsewhere in the region. For example, Standard & Poor's (S&P) estimates end-2005 nonperforming assets at 25% of total loans in PRC, 20% in Thailand, and 10% in Malaysia. Source: S&P, 13 September 2006, *Asia 1997 Retrospective: Today's Banks Likely to Survive Stress Scenarios,* www.standardandpoors.com.

The favorable economic environment and improved asset quality strengthened overall profitability across the region, reflected in banks' ROA and ROE (Tables 5b, 5c). With the stronger profitability and, in some cases, recapitalization (such as in the PRC), risk-weighted CARs are quite high (Table 5d). However, some caution in interpreting these numbers is warranted. In Indonesia and the Philippines, for example, the asset base is reduced because of significant portions of zero-risk-weighted sovereign securities. Moreover, detailed information is not yet widely available on bank exposure to market risk through holdings of private and official securities (and derivatives). However, with the recent increase in the share of income from securities investments, many governments are now modifying capital regimes to pay greater attention to market risk.

Table 5b: **Rate of Return on Commercial Bank Assets**
(% per annum)

| | 2003 | 2004 | 2005 | 2006Q1 | 2006Q2 |
|---|---|---|---|---|---|
| Indonesia | 2.6 | 3.5 | 2.6 | 2.6 | 2.5 |
| Hong Kong, China | 1.4 | 1.5 | 1.6 | ... | ... |
| Japan | ... | 0.5 | 0.8 | ... | ... |
| Korea, Rep. of | 0.2 | 0.9 | 1.3 | ... | ... |
| Malaysia | 1.3 | 1.4 | 1.4 | ... | ... |
| Philippines | 1.2 | 1.0 | 1.1 | 1.2 | 1.2 |
| Singapore | 1.1 | 1.3 | 1.2 | 1.2 | ... |
| Taipei,China | 0.5 | 0.6 | 0.3 | 0.3 | 0.1 |
| Thailand | 0.7 | 1.3 | 1.4 | 1.4 | 2.7 |

...= not available.
Sources: CEIC and national sources.

Table 5c: **Rate of Return on Commercial Bank Equity**
(% per annum)

| | 2003 | 2004 | 2005 | 2006Q1 | 2006Q2 |
|---|---|---|---|---|---|
| China, People's Rep. of | 19.0 | 16.2 | 17.3 | ... | ... |
| Indonesia[1] | 2.4 | 4.3 | 2.8 | 7.7 | 16.2 |
| Hong Kong, China | 16.9 | 18.7 | 18.4 | ... | ... |
| Japan | ... | 8.0 | 14.0 | ... | ... |
| Korea, Rep. of | 3.4 | 15.2 | 18.4 | ... | ... |
| Malaysia | 15.3 | 16.3 | 16.9 | ... | ... |
| Philippines | 9.3 | 7.6 | 9.5 | 10.0 | 10.2 |
| Singapore | 10.3 | 11.8 | 11.1 | 11.8 | ... |
| Taipei,China | 6.5 | 8.8 | 4.4 | 5.3 | 2.1 |
| Thailand | 15.7 | 15.7 | 14.2 | 16.3 | 15.1 |

...= not available.
Note: Last quarter or month of period.
[1]Data calculated by dividing profit/loss by capital from Bank Indonesia banking statistics.
Sources: CEIC and national sources.

Table 5d: **Risk-Weighted Capital Adequacy Ratios** (% of risk-weighted assets)

| | 2003 | 2004 | 2005 | 2006Q1 | 2006Q2 |
|---|---|---|---|---|---|
| Indonesia | 19.4 | 19.4 | 19.5 | 21.7 | 20.5 |
| Hong Kong, China | 15.3 | 15.4 | 14.8 | 15.0 | 15.2 |
| Japan | 10.9 | 11.4 | 11.7 | 12.2 | ... |
| Korea, Rep. of | 11.2 | 12.1 | 13.0 | 13.2 | 13.1 |
| Malaysia | 14.0 | 14.3 | 13.6 | 12.9 | 12.7 |
| Philippines | 17.4 | 18.7 | 17.7[1] | ... | ... |
| Singapore | 16.0 | 16.2 | 15.8 | 15.4 | ... |
| Taipei,China | 10.1 | 10.7 | 10.3 | 10.3 | 10.3 |
| Thailand | 14.0 | 13.0 | 14.2 | 14.1 | 14.2 |

...= not available.
Note: Based on officially reported risk-adjusted capital adequacy ratios under Basel I and applied to commercial banks (except Korea, where data includes nationwide commercial banks, regional banks, and specialized banks). Data for the Philippines is on a consolidated, not solo, basis. Data for Japan is for major commercial banks only.
[1]Data for the Philippines is 2005Q3.
Source: National sources.

## Activity Indicators

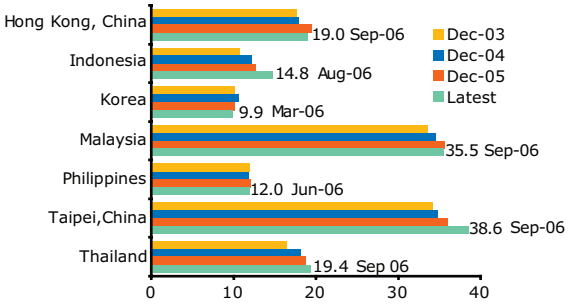
Credit growth is slowing in several economies, but remains relatively strong overall (with the exception of the Philippines, where business investment is still weak and household lending insignificant). With relatively weak investment and favorable conditions for bond issuance, corporate lending has been generally soft throughout the region. In some cases, this is a persistent trend, which has led to high levels of securities (including public sector bonds) in bank portfolios (Table 6). In contrast, real household credit grew rapidly in the second quarter of 2006, especially in Thailand (30%), Malaysia (21%), and Indonesia (19%). In many cases, this growth has come off a low base compared with the share of corporate loans to total bank

Table 6: **Securities Investment to Total Bank Assets of Commercial Banks** (%)

| | 2003 | 2004 | 2005 | 2006Q1 | 2006Q2 |
|---|---|---|---|---|---|
| China, People's Rep. of | 77.6 | 74.2 | 71.3 | ... | ... |
| Indonesia | 68.8 | 72.8 | 72.2 | 71.7 | 71.1 |
| Hong Kong, China | 19.0 | 19.2 | 19.6 | 20.0 | 20.5 |
| Japan | 26.3 | 29.0 | 30.4 | 30.1 | ... |
| Korea, Rep. of | 22.5 | 22.5 | 24.4 | 23.8 (Feb) | ... |
| Malaysia | 14.1 | 10.6 | 9.6 | 8.9 | 9.4 |
| Philippines | 28.6 | 32.8 | 31.4 | 30.2 | 32.9 |
| Singapore | 17.7 | 17.1 | 16.5 | 15.9 | 16.6 |
| Taipei,China | 15.2 | 14.2 | 12.1 | 13.7 | 13.6 |
| Thailand | 17.8 | 16.0 | 16.0 | 15.1 | 15.5 |

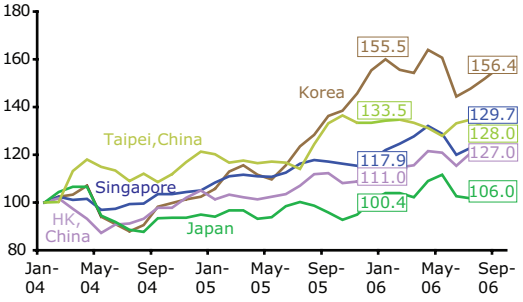
...= not available.
Note: For PRC and Indonesia, claims rather than securities data are used.
Source: CEIC, Hong Kong Monetary Authority, and Bangko Sentral ng Pilipinas.

Figure 17: **Real Estate Loans** (% of total loans)



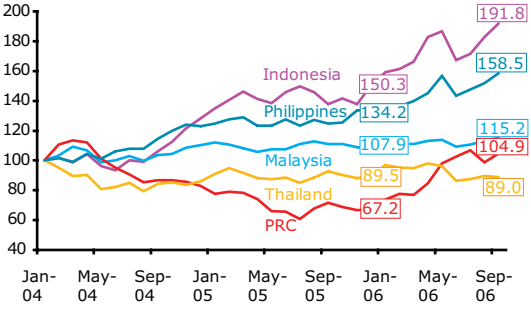

Sources: Bank Indonesia, Financial Supervisory Service (Korea), Bank Negara Malaysia, Bangko Sentral ng Pilipinas (Philippines), Bank of Thailand, Hong Kong Monetary Authority, and CEIC.

Figure 18a: **Ratio of Financial Stock Price Index to Overall Stock Market Index —NIEs and Japan** (January 2004=100)




Source: Bloomberg.

Figure 18b: **Ratio of Financial Stock Price Index to Overall Stock Market Index —ASEAN4 and PRC** (January 2004=100)




Source: Bloomberg.

loans, leaving household indebtedness relatively low in some economies (Table 7a). However, consumer lending is becoming more important. Household non-mortgage indebtedness is rising relative to GDP in several economies (Table 7b). In general, diversification into smaller, more numerous, and more geographically dispersed household loans tends to reduce overall credit risk and increase profit margins, assuming banks can preserve loan quality.

In many economies, bank exposure to real estate is also expanding and mortgage lending is still more important than consumer credit (Table 7c). The exception is the Philippines, where mortgage lending is even less significant than consumer lending. In general, real estate lending has slowed somewhat from the rapid growth in 2005 and early 2006, and the share of real estate loans in total bank loans is broadly stable and still relatively low, except in Malaysia and Taipei, China (Figure 17). However, these broad aggregates often mask more significant vulnerability and exposure in banking subsectors. In Korea, for example, if Korea Development Bank and Export-Import Bank of Korea loan portfolios are excluded, the proportion of housing-related loans rises to 30% of total outstanding credit. With the rapid rise in real estate prices in many localities around the region, even banking systems with relatively small exposures may thus see a rise in NPLs if softer economic growth triggers a real estate correction.

## Market Indicators

Financial sector stocks in most economies have performed relatively well, helped by a better performance at banks in the region. Compared with benchmark indexes, financial sector stock valuations have increased in nearly all economies—with a particularly sharp increase in Indonesia (Figures 18a, 18b). Vulnerabilities remain, however, and credit rating agencies' views on financial system strength suggest concerns in a number of countries. While officially reported impaired assets have clearly declined sharply in many economies, credit rating agencies have raised concern that official data may tend to underestimate the reality in some economies. In PRC, Indonesia, Philippines, and Thailand, these concerns have apparently adversely influenced credit ratings.

More generally, there are significant differences between relatively favorable prudential indicators and credit rating

Table 7a: **Household Indebtedness** (% GDP)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006H1 |
|---|---|---|---|---|---|---|
| Indonesia | 4.3 | 5.4 | 6.7 | 8.3 | 9.3 | 10.0 |
| Hong Kong, China | 60.3 | 60.5 | 60.2 | 58.1 | 55.5 | 54.1 |
| Japan | 19.8 | 20.6 | 21.7 | 22.0 | 22.5 | 22.5 |
| Korea, Rep. of | 25.8 | 32.5 | 34.9 | 35.3 | 37.8 | 40.2 |
| Malaysia[1] | 46.2 | 49.9 | 52.1 | 52.6 | 55.0 | 56.1 |
| Philippines | 5.8 | 5.3 | 4.8 | 5.2 | 4.7 | 4.2 |
| Singapore[2] | ... | ... | ... | 50.9 | 49.3 | 47.8 |
| Taipei,China | 43.3 | 43.6 | 48.2 | 54.4 | 59.5 | 59.1 |
| Thailand | ... | ... | ... | 24.5 | 24.6 | 23.1 |

Table 7b: **Household Non-mortgage Indebtedness** (% GDP)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006H1 |
|---|---|---|---|---|---|---|
| Indonesia | 3.1 | 4.2 | 5.2 | 6.4 | 7.2 | 7.5 |
| Hong Kong, China | 10.5 | 10.3 | 10.3 | 10.9 | 11.6 | 11.4 |
| Japan | 4.7 | 4.5 | 4.3 | 4.0 | 3.8 | 3.7 |
| Korea, Rep. of | 11.9 | 13.2 | 13.8 | 13.6 | 14.2 | 15.1 |
| Malaysia[1] | 20.4 | 22.2 | 22.6 | 23.1 | 24.9 | 26.4 |
| Philippines | 5.0 | 4.5 | 4.1 | 4.5 | 4.1 | 3.5 |
| Singapore[2] | ... | ... | ... | 18.0 | 16.7 | 16.0 |
| Taipei,China | 16.7 | 16.4 | 18.7 | 22.1 | 23.8 | 21.9 |
| Thailand | ... | ... | ... | 8.4 | 7.5 | 6.4 |

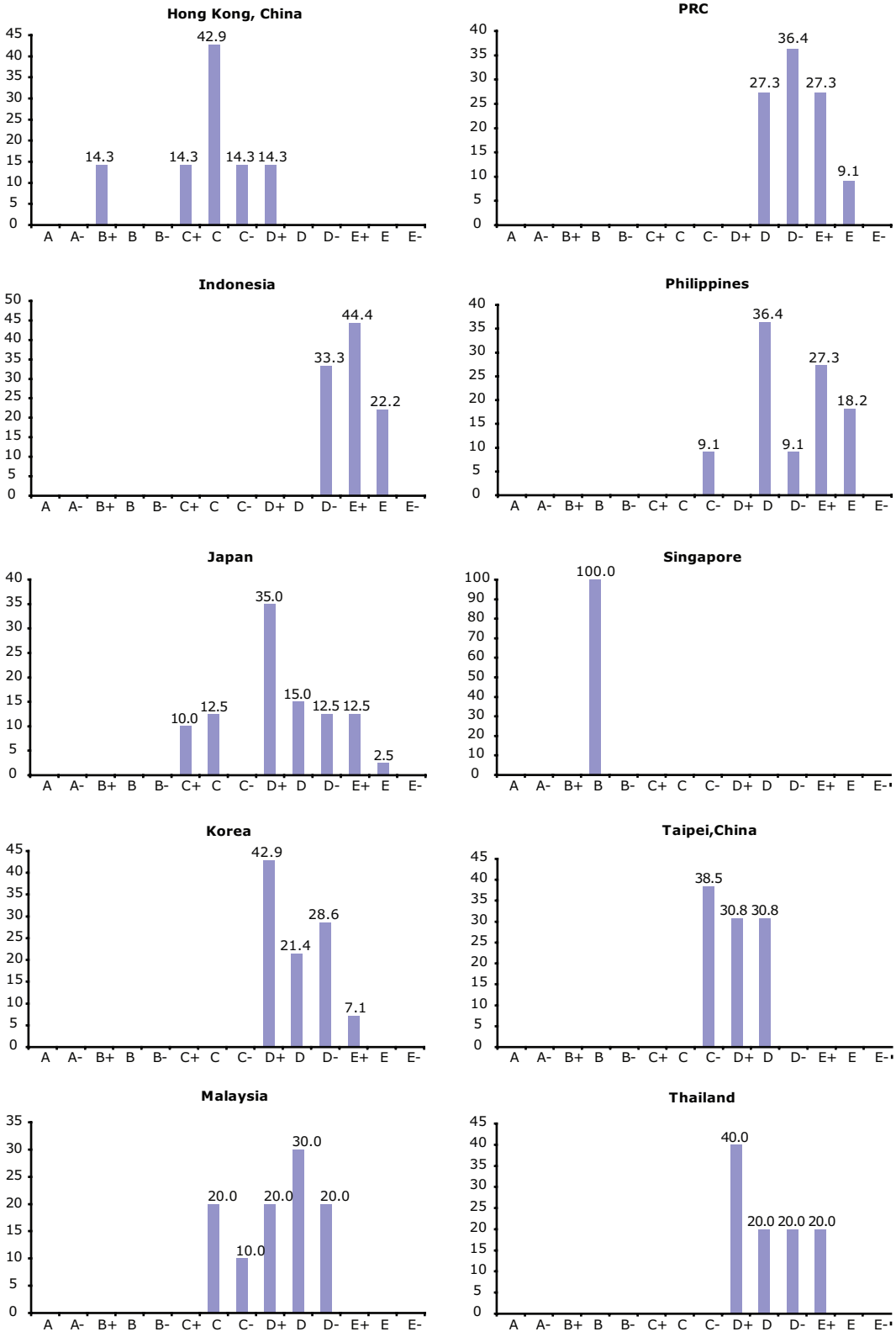
Table 7c: **Household Mortgage Indebtedness** (% GDP)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006H1 |
|---|---|---|---|---|---|---|
| Indonesia | 1.2 | 1.2 | 1.5 | 1.9 | 2.1 | 2.6 |
| Hong Kong, China | 49.8 | 50.3 | 49.9 | 47.3 | 43.9 | 42.7 |
| Japan | 15.1 | 16.1 | 17.5 | 18.0 | 18.7 | 18.8 |
| Korea, Rep. of | 13.9 | 19.3 | 21.1 | 21.8 | 23.6 | 25.0 |
| Malaysia[1] | 25.8 | 27.7 | 29.5 | 29.5 | 30.1 | 29.7 |
| Philippines | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.6 |
| Singapore[2] | 28.4 | 29.1 | 32.8 | 32.9 | 32.7 | 31.8 |
| Taipei,China | 26.6 | 27.2 | 29.5 | 32.3 | 35.6 | 37.2 |
| Thailand | 13.2 | 13.9 | 14.5 | 16.1 | 17.1 | 16.7 |

...= not available.
[1]Sum of loans for personal use, credit cards, purchase of consumer durable goods, and purchase of passenger cars for commercial banks, merchant banks, and finance companies. 2006 data from commercial banks and merchant banks only.
[2]Refers to consumer loans from commercial banks and finance companies.
Sources: CEIC; Monthly Statistical Bulletin, Bank Negara Malaysia; Monthly Statistical Bulletin, Monetary Authority of Singapore; and Hong Kong Monetary Authority.

agencies' measures of financial strength. In particular, sizable parts of banking systems in several economies are rated in the low D and E range for financial strength—with the exception of Hong Kong, China and Singapore (Figure 19). The reasons for these low ratings include relatively strong market views on

Figure 19: **Bank Financial Strength Rating**




Source: Moody's Investors Service.

the need to strengthen risk management and questions about the effectiveness of supervision and regulation. Based on these ratings of financial strength, banking sectors in PRC, Indonesia, Philippines, and Thailand leave room for improvement. The recent wider use by banks (and supervisors) of tools such as stress tests—in which the robustness of a financial institution is assessed against certain plausible shocks—provides grounds for cautious optimism. For example, stress tests involving sharp declines in real estate prices of banking systems in Hong Kong, China; Korea; Malaysia; and Singapore indicate the relative robustness of those systems.

Looking forward, the key issues for financial stability relate to (i) how systems will be affected by changes in the current macroeconomic environment, (ii) how well credit risk in recent lending has been managed, and (iii) whether profitability and capital cushions will be sufficient to absorb any unexpected losses. In addition, the scheduled implementation of Basel II over the next five years will be a major challenge (Table 8).

Below is an assessment of financial stability in individual economies:

- The PRC has made significant progress in restructuring and recapitalizing three of its four major state-owned banks—Bank of China, China Construction Bank, and the Industrial and Commercial Bank of China—with only Agricultural Bank still to go.[8] With the injection of public funds and the transfer of NPLs to asset management companies, reported CARs and asset quality of the three restructured state-owned banks have improved in recent years. Less clear is how much these banks have made deep-seated changes in commercial orientation and risk management, and whether their recent, very high increase in lending has been accompanied by deterioration in asset quality. Some global credit rating agencies tend to view asset quality in the PRC banking system less positively than that officially reported. PRC authorities recognize the need for further progress to strengthen risk management. There is some concern whether banks have adequately provisioned for asset quality. In line with World Trade Organization (WTO) commitments, the PRC will open its banking system to foreign competition by the end of this year.

[8]The four state-owned banks account for about 60% of total banking assets in the PRC.

Table 8: **Implementation Schedules for the Credit and Operational Risk Measurement Approaches Under Basel II Framework in Selected Asian Jurisdictions** (as of mid-2006)

| | 2007 | 2008 | 2009 | 2010 | 2011 | Remarks |
|---|---|---|---|---|---|---|
| Japan | ○ ◎ □ ▣ | ● ■ | | | | |
| Taipei,China | ○ ◎ □ ▣ | ● ■ | | | | |
| Hong Kong, China | ○ ◎ □ ▣ | ● | | | | ■ Not allowed |
| Singapore | ○ ◎ | ● □ ▣ ■ | | | | |
| Philippines | ○ □ ▣ | | | ◎ ● ■ | | |
| Korea, Rep. of | | ○ ◎ ● □ ▣ ■ | | | | |
| Viet Nam | | ◎ □ ▣ ■ | ○ ● | | | |
| Thailand | | | ○ ◎ □ ▣ ■ | ● | | |
| Indonesia | | | ○ □ | ◎ ● ▣ | ■ | |
| Malaysia | | ○ □ | | ◎ ▣ | | ● Not decided<br>■ Not available |
| China, People's Rep. of | | | | ◎ ▣ | | ○● Not available<br>□■ Not available |

Credit Risk

- ○ Standardized
- ◎ Internal Ratings Based (Foundation)
- ● Internal Ratings Based (Advanced)

Operational Risk

- □ Basic Indicator
- ▣ Standardized
- ■ Advanced Measurement

Source: Asian Bankers' Association position paper: "Promoting the effective implementation of the Basel II Framework in the Asia-Pacific region." Draft as of 21 September 2006.

Notes on risk measurement approaches:

Credit risk

1. Standardized: Under this approach, banks measure credit risk in a standardized manner, supported by external credit assessments. In determining the risk weights in the standardized approach, banks may use assessments by external credit assessment institutions recognized as eligible for capital purposes by national supervisors in accordance with a defined criteria. Exposures should be risk-weighted net of specific provisions.

2. Internal Ratings Based (IRB): Banks that have received supervisory approval to use IRB approach may rely on their own internal estimates of risk components in determining the capital requirement for a given exposure. The risk components include measures of the probability of default (PD), loss given default (LGD), the exposure at default (EAD), and effective maturity (M). In some cases, banks may be required to use a supervisory value as opposed to an internal estimate for one or more of the risk components.

2a. *Foundation*: Under the foundation approach, as a general rule, banks provide their own estimates of PD, and rely on supervisory estimates for other risk components.
2b. *Advanced*: Under the advanced approach, banks provide more of their own estimates of PD, LGD and EAD, and their own calculation of M.

Operational risk

1. Basic indicator: Banks must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted alpha) of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average.

2. Standardized: Banks' activities are divided into eight business lines: corporate finance, trading & sales, retail banking, commercial banking, payment & settlement, agency services, asset management, and retail brokerage. Within each business lines, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta) assigned to that business line. Beta serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line.

3. Advanced Measurement Approaches (AMA): Under the AMA, the regulatory capital requirement will equal the risk measure generated by the bank's internal operational risk measurement system using quantitative and qualitative criteria for the AMA. Use of the AMA is subject to supervisory approval.

Source: Bank for International Settlements. "Basel II: International Convergence of Capital Measurement and Capital Standards: a Revised Framework." June 2004.

- Indonesia continues to make progress in addressing banking sector weaknesses, moving toward more risk-based supervision in line with Basel principles. Reported financial indicators improved significantly during the past few years as risk management systems, in private banks in particular, have improved and reported asset quality has strengthened.[9] Both ROA and ROE are higher as a result of the very high spreads between loan and deposit rates, as well as lower levels of specific postcrisis provisioning. This relatively favorable view, however, conceals continued weaknesses—and very low profitability—in two major state banks where NPL ratios have recently been as high as 20%. In late 2005, Indonesia replaced the blanket guarantee on bank deposits introduced during the 1997/98 crisis by a targeted and limited deposit insurance scheme and an emergency lending facility at Bank Indonesia. Key risks relate to the very weak condition of the large state banks and the extent to which private banks have improved risk management and asset quality. Indonesia's banks, which have little household lending and weak business portfolios, generally hold significant amounts of public sector debt.

- Significant progress has been made in Japan in reducing NPLs and, more generally, in strengthening the banking system. Risk-weighted capital ratios are now comfortably in excess of 8% and the share of deferred taxes in capital[10] has continued to decline. There are still vulnerable regional banks, but they are less likely to pose systemic risks. Low core banking profitability is one key outstanding issue although the Financial Service Authority is adopting a new Financial Sector Reform to address this and related issues.

- Korea's financial system recently reported significant improvement in most indicators as the provisioning for NPLs in the wake of the credit-card crisis has been completed, with a number of banks increasing income from securities investments. The reported NPL ratio is now the lowest in the region, ROE has rebounded, and risk-weighted CARs have returned to comfortable levels. Mirroring this, profits at the six major credit card companies have rebounded as specific provisioning for credit card losses has been largely completed. Recently, mutual savings banks[11] have rapidly expanded loan portfolios, benefiting,

[9]Recent small increases in reported NPL ratios largely reflect improvements in loan classification and provisioning standards.
[10]Until recently, some Japanese banks included sizable amounts of deferred taxes to help meet capital requirements.
[11]Mutual savings banks account for around 3% of financial system assets.

at least in part, from less supervision and regulation than banks. Although mutual savings banks are unlikely to pose systemic risks, authorities have been considering measures to slow their credit growth. Key ongoing risks relate to the need for banks and other financial institutions to continue strengthening risk management frameworks as they move into new lines of business and take on increasing amounts of market risk from securities. A particular concern is banks' exposure to the real estate market, where rapidly rising housing prices (in Seoul, 9.6% higher in August 2006 than in December 2005) are raising concerns of a bubble that could collapse and trigger a wave of mortgage defaults.

- Malaysia's financial indicators have improved or remained strong in recent years,[12] with reported NPLs recently hovering at around 5%. Reflecting relative stability in the ROA, the ROEs have also remained at comfortable levels. As with several other economies in the region, banks have recently been active in household and related lending that has helped bank profitability and risk diversification. This lending generally is backed by the use of extensive prudential safeguards and Bank Negara Malaysia reportedly employs state-of-the-art stress tests to ensure risks are adequately managed. Key issues relate to household lending portfolios, but there appears to be adequate profitability and capital cushions to handle the risks.

- The Philippines has made significant progress in strengthening its banking system and improving supervision and regulation. Reported NPLs recently moved into single digits, while profitability and ROAs are at relatively competitive levels. Reported risk-weighted CARs have been high.[13] Philippine banks have yet to market household lending, and with limited lending to the business sector, they have turned to securities-related investments to sustain profitability—thereby increasing exposure to market risk. Notwithstanding the positive overall data, some global rating agencies have expressed concern about possible lapses in reporting and provisioning for impaired NPLs, and note large differences in performance across banks. The very high but declining nonperforming asset ratio—associated, in part, with previously restructured loans and foreclosed real estate—is

[12]The recent small reductions in reported risk-weighted CARs largely reflect improved accounting for market risk.

[13]Since the end of 2005, international accounting standards have been required for bank financial statements.

another area of concern. Global ratings agencies have also expressed concern about the effectiveness of the supervisory and regulatory regime.

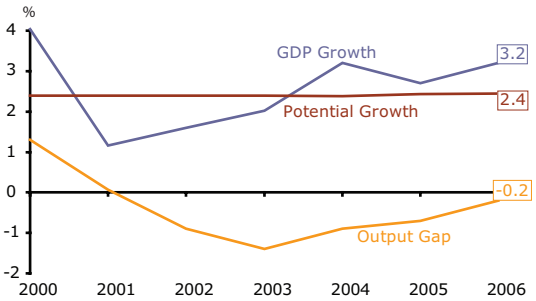
- The financial system in Taipei,China has recently seen a relatively sharp deterioration in asset quality due largely to problems with credit card lending. Even though reported NPLs and CARs have not been seriously affected, both ROAs and ROEs have fallen sharply as earnings have declined.

- Reported NPLs in Thailand have recently declined sharply, hovering at 8% of total loans. Wide loan-deposit rate spreads increased the ROAs early this year while reported risk-weighted CARs remained relatively high. However, reports indicate NPLs in certain sectors such as construction did not share in the recent overall decline and performance has varied widely across banks. Overall, global credit rating agencies appear to show increased confidence in the banking sector. Banks have recently expanded into household lending—though well below the levels in Korea during the credit-card crisis—and risks are generally considered well-managed. Key risks are linked to the smooth transition to the planned October 2007 elections and a continued strong macroeconomic performance. There remains some uncertainty about the extent to which bank risk management has been strengthened and the quality of previously restructured loans. Until recently, several restructured NPLs returned to NPL status, but the re-entry rate appears to have slowed.

- The financial systems in Hong Kong, China and Singapore remain sound, supported by strong supervisory and regulatory regimes. Risk-weighted CARs and profitability in part remain high in both economies and asset quality—as reflected in low NPL ratios and adequate provisioning—is strong. Their financial sectors face challenges similar to those in more advanced economies, and relate to ensuring that risks are adequately managed as competition in financial sectors increases and banks increasingly engage in cross-border lending and other activities. Supervisors in both economies make extensive use of stress testing to assess the robustness of the financial systems in case of shocks. Global credit rating agencies give banks in the two economies very high ratings for financial strength. In both cases, the key immediate risks are associated with conditions in global financial markets and any potential spillover to the region.

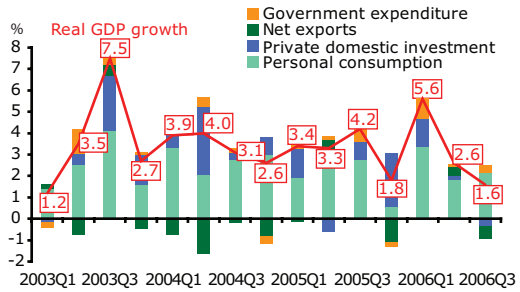
# Economic Outlook for 2007, Risks, and Policy Issues

Figure 20: **OECD GDP Growth, Potential Growth, and Output Gap**



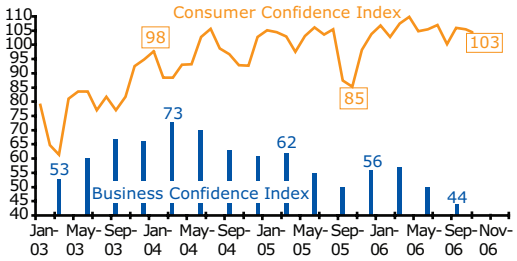

Sources: OECD Economic Outlook No. 80.

Figure 21: **Contributions to Growth—US** (seasonally adjusted, annualized, q-o-q, % change)




Source: US Bureau of Economic Analysis.

Figure 22: **US Consumer Confidence Index**




Notes:
1. Consumer confidence (1985=100).
2. A business confidence index above 50 means there are more positive than negative responses.
3. Consumer confidence is monthly, business confidence is quarterly.
Source: Bloomberg.

## External Economic Environment

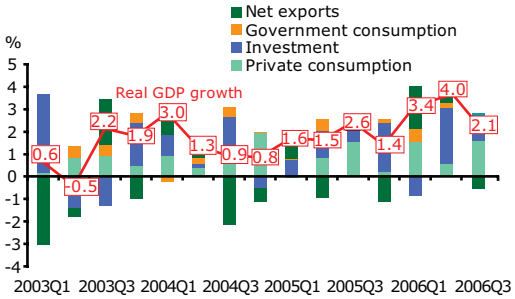
In 2006, after a sustained 5-year expansion, several of the world's leading economies are at or near full capacity and appear to be adjusting to more tempered growth. With GDP generally growing at rates exceeding potential, the Organisation for Economic Co-operation and Development (OECD) economies[14] are narrowing OECD's estimated output gaps, with some—such as the US—now running at full capacity (Figure 20).[15] This has boosted growth in international trade, but it also has increased pressure on prices until recently, particularly for commodities. A more sustainable pace of growth is expected in 2007, which will further ease inflationary pressure and slow world trade modestly.

After strong anticipated GDP growth of about 3.2% in 2006, the US economic expansion should slow next year and inflation ease—although there are as yet no clear signs of a reduction in its huge current account deficit. Following a rebound in the first quarter of 2006, economic momentum in the US faded (Figure 21) on weakness in the housing-related (construction, furniture, white goods) and auto sectors, which contributed to slower GDP growth. Nonetheless, resilient consumer confidence (Figure 22), a strong labor market, and equity market gains are mitigating the effect of the housing price correction on personal wealth. Its effects are expected to be relatively contained and growth in consumption to be sustained, if slower, into 2007. Coupled with a modest investment outlook, and rising public spending, GDP growth in 2007 is forecast to be 2.7%, somewhat below its potential. Headline inflation dropped to 1.3% in October 2006, from 4.3% in June, while core inflation was more persistent, falling to 3.7%, from 3.9%. As these trends continue, lower inflation is expected in 2007. In contrast, the current account deficit is proving less easily contained. Through September this year, US exports of goods grew faster than imports in real terms, but the trade deficit climbed nonetheless on rising import prices.

[14]In aggregate, the 30 OECD economies in 2005 accounted for 80% of world GDP in current US dollars. Excluding Asian OECD members, Japan and the Republic of Korea, they still account for 80% of output outside East Asia.

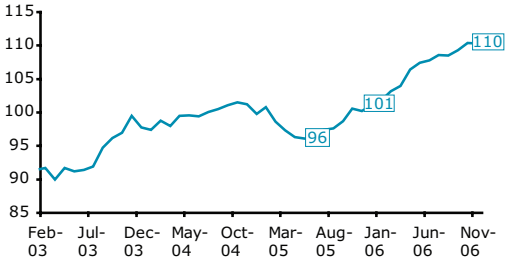
[15]Annual US economic growth, averaging about 3.5% during 2004–06, exceeds the OECD-estimated 2.9% potential US annual GDP growth. For the euro zone, OECD estimates annual potential growth at about 2.0%.

Figure 23: **Contributions to Growth—euro area** (seasonally adjusted, annualized, q-o-q, % change)



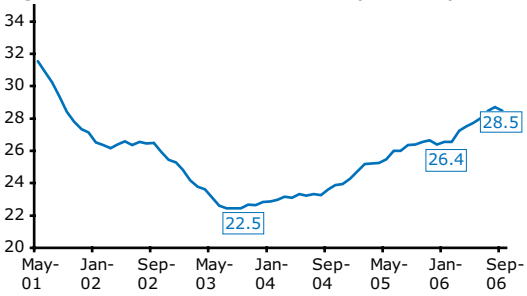

Source: Eurostat.

Figure 24: **Economic Sentiment Indicator: euro area**




Note: The economic sentiment indicator reflects the general economic activity of the euro area. This indicator combines assessment and expectations stemming from business and consumer surveys.
Source: Bloomberg.

Figure 25: **New US IT Orders**[1] ($ billion)



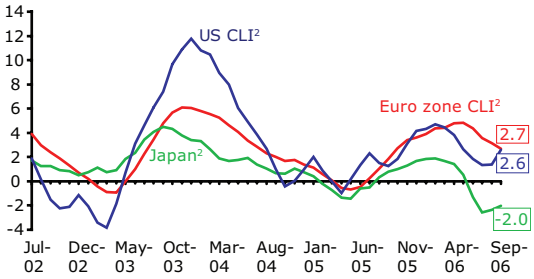

[1] 6-month moving average of the seasonally-adjusted series.
Source: Bloomberg.

The euro area's growth—after strengthening to a 6-year high of 2.6% in 2006—is expected in 2007 to move closer to its potential rate at about 2%, while inflation remains mostly contained and the current account broadly balanced. In 2006, a solid rise in exports and stronger domestic demand boosted GDP growth in the first half (Figure 23), and signs for the second half point to broad-based strength in domestic demand, including favorable trends in sentiment (Figure 24). Despite the surge in economic activity in 2006, inflation averaged 2.3% through September, about the same pace as in 2005. In 2007, inflation is expected to remain at around the same level as this year, and above the European Central Bank's medium-term target of about 2.0%. Strong export growth in the first half of 2006 kept the current account nearly balanced, although greater relative strength in domestic demand is likely to generate small deficits in 2006 and 2007.

In line with economic activity in general, world trade volume is growing at a stronger pace in 2006, but will likely slow next year. Through September 2006, new US orders in information technology (IT) continued to strengthen, rising 8% from September 2005, on a 6-month moving average basis (Figure 25). The North American semiconductor book-to-bill ratio, which was generally much stronger than in 2005, remained relatively strong at 0.95 in October 2006. However, leading indicators suggest a period of weakening in the growth cycle of global industrial production (Figure 26). For East Asia's manufactured exports, this suggests a slightly softer, but still supportive outlook for external demand. Overall, after accelerating to 11.0% in 2006, from 6.2% in 2005, growth in the volume of world trade is forecast to ease to a still healthy 8.0% in 2007.

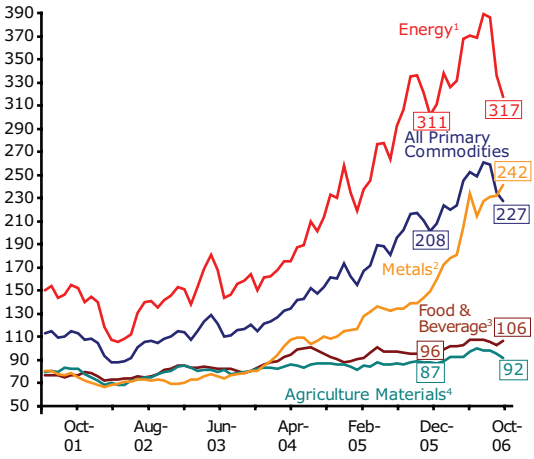
More tempered global economic activity in recent months has helped reduce price pressures in key commodity markets, especially oil, where an increase in spare capacity also helped ease fears of major disruptions to oil supplies. Yet, commodity prices in general and oil prices in particular are likely to remain volatile and at high levels in the near term. Oil prices are near end-2005 levels, after a 25% drop in the price of Brent crude oil (through October 2006) from the early August peak of $78 per barrel (bbl). Futures prices, however, remain above the spot prices as winter arrives in the northern hemisphere. In addition, the Organization of the Petroleum Exporting Countries (OPEC) ministers cut production quotas by 1% of world consumption

Figure 26: **OECD Composite Leading Indicators**[1] (% change)



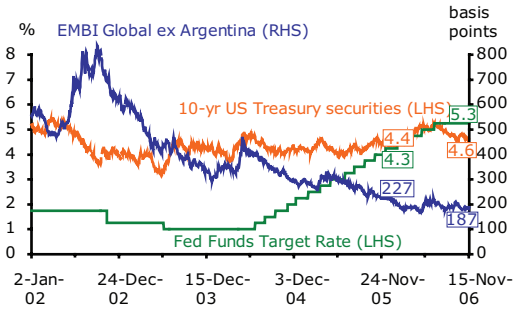

[1]Composite Leading Indicators (CLIs) are constructed to signal turning points in growth cycles of aggregate economic activity.
[2]6-month, annualized, trend restored.
Source: OECD website.

Figure 27: **Primary Commodity Price Indexes** (1995=100)




[1]Crude oil, natural gas, coal.
[2]Copper, aluminum, iron ore, tin, nickel, zinc, lead, uranium.
[3]Cereal, vegetable oils, meat, seafood, sugar, bananas, oranges, coffee, tea, cocoa.
[4]Timber, cotton, wool, rubber, hides.
Source: IMF website.

Figure 28: **US Interest Rates and Sovereign Spreads**




Sources: US Federal Reserve and JP Morgan.

effective November 2006.[16] Metals prices stabilized after rising rapidly early in 2006, although they had not yet begun to fall as of September (Figure 27). The outlook for 2007 is for oil prices to remain high and volatile and for non-fuel commodity prices to drop slightly from current peaks.

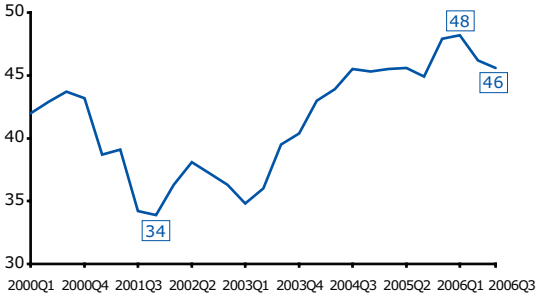
Overall, the pace of global monetary tightening has slowed in recent months, and with signs of moderating growth emerging among some of the world's leading economies, this slower pace is likely to continue over the near term. After 17 successive 25bp rate hikes through June 2006, the US Fed Funds Target rate is now on hold at 5.25% (Figure 28). The US Federal Reserve remains concerned about core inflation and the European Central Bank and Bank of Japan retain tightening biases, but the more modest pace of global tightening is likely in the coming months. The yield on 10-year US Treasuries rose in concert with short-term rates for several months before peaking in early July 2006. The US yield curve is now noticeably inverted, which many suggest signals a possible recession—independent of any structural factors that may explain the bond market conundrum of an unusually flat yield curve in 2005 and early 2006. Sovereign spreads, which widened during the financial market turbulence of May and June 2006, have since stabilized and remain compressed. At the same time, equity markets continue to gain strongly, with the world Morgan Stanley Capital International Inc. (MSCI) Index[17] up 14.7% through 15 November 2006.

On balance, in 2007, East Asia faces an external economic environment expected to be somewhat less supportive of exports and growth, but more conducive to containing inflationary pressures. As growth eases in the major industrial economies, so will the rapid expansion of export markets for emerging economies. Oil and other commodity prices should remain high, but below recent peaks, and fewer policy rate hikes are expected in the major markets. Relatively stable rates with low risk premiums, in turn, should lower pressure on policymakers in East Asia's emerging markets, which are particularly vulnerable to changes in external financial conditions.

[16]The 1.2 million barrels per day cut is 4.3% of OPEC's September 2006 production level. OPEC, which supplies about one-third of the world's daily consumption, aims for a price range of $55–60/bbl.
Source: http://www.opec.org/opecna/Press%20Releases/2006/pr172006.htm.

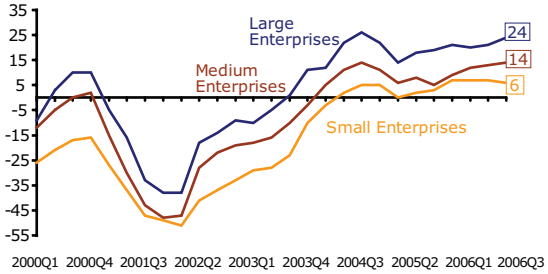
[17]The MSCI indexes are widely used as performance benchmarks by asset managers. The all-country world MSCI Index covers 23 developed and 26 emerging markets.
Source: MSCI Barra.

Figure 29a: **Japan Consumer Confidence**
(y-o-y,%)




Source: Bloomberg.

Figure 29b: **Japan Tankan Survey—Business Conditions Indicator**
(Manufacturing)




Source: Bloomberg.

## Regional Economic Outlook for 2007

A less supportive external environment would lead to slower economic growth in East Asia in 2007. For many of the region's economies, GDP growth is correlated with export trends, which are dominated by manufactured goods, especially electronics and electrical machinery. Extra-regional markets for these exports, therefore, will likely remain important, both directly and indirectly. This is because a significant proportion of intraregional trade involves (i) inputs into finished products to be exported to markets outside East Asia, or (ii) capital goods related to investment in export industries. Moreover, this effect is more important in some economies than in others.[18] In addition to slowing external demand, domestic demand growth is likely to slow as investment is constrained by slowing export growth. However, consumption is expected to be more resilient. Average GDP growth for the East Asian economies is forecast to slow to 4.4% in 2007, from a postcrisis peak of 4.9% in 2006 (Table 9). Excluding Japan, regional GDP growth is forecast to drop to 7.0% in 2007, from 7.7% this year.

Within the region, Japan and the PRC are expected to expand more moderately in 2007, from very strong growth projected this year. In Japan, despite fading economic momentum, GDP growth is likely to be 2.8% in 2006. As the economy approaches full capacity, GDP growth is expected to slow modestly to 2.4% in 2007. Resilient private domestic demand, as indicated by the sustained strength in consumer and business confidence (Figures 29a, 29b), will partially offset weaker export demand. This will support strong import growth, which will be partly sourced from within the region (Japan absorbs 9.8% of the rest of the region's exports). In the PRC, the prospects show a relatively smooth transition from a projected 10.4% economic growth in 2006 to 9.5% in 2007. Despite slowing investment, robust expansion of consumption and exports should support slowing but strong growth.

[18]Private sector estimates show that when export shares are adjusted to reflect final demand, the aggregate share of exports from the NIEs and ASEAN-4 economies to the US changes from 16% to 19%, to the European Union from 11% to 15%, to Japan from 9% to 11%, but to the PRC from 27% to 13%. Moreover, the direct and indirect effects of a 0.5 percentage point (pp) fall in US GDP growth are estimated to cause growth to slow by only 0.1 pp in PRC and 0.2 pp in Japan, but by 0.3 pp in Korea and the Philippines, with perhaps a 0.5 pp drop in Singapore and Hong Kong, China. Sources: UBS, 24 October 2006, *Asian Economic Perspectives*, p. 13; HSBC, *Impact of a US Slowdown on Asia*, 21 September 2006, p. 6.

The NIEs are expected to display the most significant adjustment, slowing from a peak of 5.3% in 2006 to 4.6% in 2007. These economies, which rely in part on capital exports to the PRC, or on trade-related services, would be most affected by a slowdown in PRC investment growth or an easing of the pace of growth in the volume of trade. Moreover, these economies are also highly sensitive to changes in the US economy. Within ASEAN, despite the expected slowdown in export growth, strengthening domestic demand in several economies should sustain economic expansion. Excluding Singapore, the ASEAN economies taken together are projected to sustain average GDP growth of 5.4% in 2006 and 5.5% in 2007. In the ASEAN-4 economies, stronger domestic expansions are expected to get support from an ongoing recovery in Indonesia, reduced inflationary pressures in the Philippines, and a milder impact than feared from the September coup in Thailand.

Slowing growth is expected to generally ease inflationary pressure throughout the region in 2007, continuing trends of recent months. Indeed, in some cases inflation is dropping faster than anticipated and in emerging East Asia it is projected to fall from an annual average of 3.0% in 2005 to 2.7% in 2006—a pace expected to be sustained in 2007. In several economies where there have already been significant pass-through effects of higher energy costs (such as the Philippines and Thailand), inflation is forecast to ease in 2007 while it should remain stable in low-inflation economies (such as Hong Kong, China; and Korea).

## Risks to the Outlook

Several risks could upset the above outlook: (i) a sharper-than-expected slowdown in the US economy, (ii) a disorderly adjustment of global payments imbalances, (iii) significant global financial market turbulence, (iv) a sudden oil supply shock, (v) an insufficient slowdown of the PRC economy, and (vi) disruptions arising from non-economic events such as an avian flu pandemic or an escalation of the emerging geopolitical tensions on the Korean peninsula.

First, while the threat of persistently high inflation in the US has not faded completely, the near-term risk of a sharper-than-expected slowdown—even the possibility of a recession—is higher now than in early 2006. The downside risk of a sharp slowdown in the economy against the backdrop of a weakening housing sector—which could spread to other parts of the economy—has

Table 9: **Annual GDP Growth Rates** (%)

| | Average | | | | | | | December 2006 ADB Forecasts | |
|---|---|---|---|---|---|---|---|---|---|
| | 1996–05 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| **East Asia** [1,2] | **3.1** | **4.7** | **1.9** | **2.8** | **3.8** | **4.7** | **4.7** | **4.9** | **4.4** |
| Japan | 1.2 | 2.9 | 0.4 | 0.1 | 1.8 | 2.3 | 2.7 | 2.8 | 2.4 |
| | | | | | | | | | |
| **Emerging East Asia** [1,2] | **6.3** | **7.8** | **4.4** | **6.8** | **6.7** | **7.9** | **7.4** | **7.7** | **7.0** |
| | | | | | | | | | |
| **ASEAN** [1,2] | **3.7** | **5.9** | **2.6** | **4.9** | **5.7** | **6.1** | **5.4** | **5.4** | **5.5** |
| Brunei Darussalam | 0.8 | 2.8 | 2.7 | 3.9 | 2.9 | 0.5 | 0.4 | 3.7 | 3.0 |
| Cambodia | 8.3 | 8.4 | 7.7 | 6.2 | 8.6 | 10.0 | 13.4 | 7.0 | 6.4 |
| Indonesia[3] | 2.9 | 4.9 | 3.6 | 4.5 | 4.8 | 5.1 | 5.6 | 5.4 | 6.0 |
| Lao PDR | 6.2 | 5.8 | 5.8 | 5.9 | 5.8 | 6.9 | 7.2 | 7.3 | 6.5 |
| Malaysia | 4.8 | 8.9 | 0.3 | 4.4 | 5.5 | 7.2 | 5.2 | 5.8 | 5.3 |
| Myanmar[4] | 10.7 | 13.7 | 11.3 | 12.0 | 13.8 | 13.6 | 13.2 | . . . | . . . |
| Philippines | 4.2 | 6.0 | 1.8 | 4.4 | 4.9 | 6.2 | 5.0 | 5.4 | 5.3 |
| Thailand | 2.8 | 4.8 | 2.2 | 5.3 | 7.0 | 6.2 | 4.5 | 4.5 | 4.5 |
| Viet Nam | 7.2 | 6.8 | 6.9 | 7.0 | 7.4 | 7.7 | 8.4 | 7.8 | 7.6 |
| | | | | | | | | | |
| **Newly Industrialized Economies**[1] | **4.5** | **8.1** | **1.1** | **5.2** | **3.2** | **5.9** | **4.7** | **5.3** | **4.6** |
| Hong Kong, China | 3.9 | 10.0 | 0.6 | 1.8 | 3.2 | 8.6 | 7.3 | 6.5 | 5.2 |
| Korea, Rep. of | 4.5 | 8.5 | 3.8 | 7.0 | 3.1 | 4.7 | 4.0 | 5.1 | 4.6 |
| Singapore | 5.2 | 10.0 | -2.3 | 4.0 | 2.9 | 8.7 | 6.4 | 7.8 | 5.3 |
| Taipei,China | 4.5 | 5.8 | -2.2 | 4.2 | 3.4 | 6.1 | 4.0 | 4.3 | 4.0 |
| | | | | | | | | | |
| China, People's Rep. of | 9.1 | 8.4 | 8.3 | 9.1 | 10.0 | 10.1 | 10.2 | 10.4 | 9.5 |
| | | | | | | | | | |
| US | 3.2 | 3.7 | 0.8 | 1.6 | 2.5 | 3.9 | 3.2 | 3.2 | 2.7 |
| Euro area | 2.1 | 3.9 | 1.9 | 0.9 | 0.8 | 1.9 | 1.4 | 2.6 | 2.0 |

. . . = not available
[1] Aggregates are weighted according to gross national income levels (atlas method, current US dollars) from *World Development Indicators* (World Bank).
[2] Excludes Brunei Darussalam and Myanmar for all years as weights are unavailable.
[3] For Indonesia, GDP growth rates from 1996–2000 are based on 1993 prices, while growth rates from 2001 onward are based on 2000 prices.
[4] For FY April–March.
Sources: ADB; Government estimates (Brunei Darussalam); Eurostat website (euro area); Economic and Social Research Institute (Japan); Bureau of Economic Analysis (US).

increased in recent months. Some analysts put the risk of recession at greater than 50%, pointing to GDP growth below 2% in the third quarter of 2006 and an inverted US yield curve. A sharp US slowdown would likely trigger a larger reduction in external demand for East Asia's exports. This significant downside risk is somewhat clouded by lingering concerns on the part of the US Federal Reserve over the slow dissipation of US core inflation amid weaker productivity growth, a tight labor market, and persistently high inflation in services.[19]

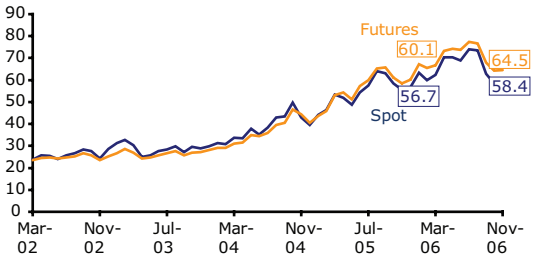
[19] US Federal Reserve Chairman Ben S. Bernanke warned in a recent speech of significant remaining inflation risks, even as the economy slows from above potential growth (remarks at the National Italian American Foundation, New York, 28 November 2006, www.federalreserve.gov).

Second, the global economy remains vulnerable to a disorderly adjustment of the still growing global payments imbalance. Despite recently booming US equity markets, a slowing US economy accentuates the risk of a sharp and chaotic loss of investor confidence. This could be accompanied by a rapid fall in the value of the US dollar. A sharp contraction of US aggregate demand can have an undue, negative impact on East Asia's exports and growth. Many East Asian economies, with significant trade exposure to the US economy and persistently high current account surpluses are very much exposed to this risk. This risk will likely persist as the US current account deficit is now so large that US exports will need to grow significantly faster than imports just to prevent the deficit from continuing to grow over the next few years. In addition, foreign investors (increasingly oil exporters) must continue to finance the gap. If that loss of confidence is triggered by, and combined with, a US recession, the impact on the region would be serious.

Third, a related near-term risk is the threat of significant global financial market turbulence, perhaps more severe than the May–June market correction. With financial markets increasingly jittery over the risk of a US recession, a sliding US dollar, and an uncertain path of US monetary policy, the possibility of increased market volatility is heightened. This risk is magnified by the possibility of a chaotic and disorderly adjustment to the US dollar, the consequent upward pressure on US interest rates, and the downward movement of equity prices. Moreover, this could be accompanied by sudden adjustments in risk appetite, leading to steep price corrections in equity markets and widening bond market spreads in emerging economies.

Fourth, although international oil prices have fallen from the August 2006 peak, a sudden reversal of this trend could further slow growth in economies worldwide and reignite inflationary pressures. Globally, although lower demand has eased pressure on energy prices (Figure 30), supply is likely to tighten as oil producers move to shore up prices. Against this backdrop, there is a risk of renewed pressure on domestic fiscal balances and energy prices if geopolitical factors disrupt oil supplies and reverse the recent oil price correction. The global economy is proving resilient thus far: revised IMF estimates suggest that a persistent oil price increase of $10 would reduce global GDP growth by only 0.10–0.15%. This compares with a 2000 estimate of a 0.30%

Figure 30: **Spot and 6-month Futures**[1] **Crude Oil Prices (monthly average)**




[1] Data of spot refer to Brent crude and data of futures refer to NYMEX.
Source: Bloomberg.

impact of a persistent $5 increase in oil prices.[20] However, a sharp supply shock amid low output gaps and slowing global economic growth could have a larger harmful effect.

Fifth, despite recent slower investment expansion, there remains the medium-term risk that GDP growth in the PRC may not slow smoothly to a sustainable pace, and there is uncertainty as to whether measures to rein in over-investment are sufficient. The authorities recently stepped up efforts to bring down the rate of investment growth, and these measures appear to be having an impact. Growth of fixed-asset investment dropped sharply from 33% in June 2006 to 16% in October. Yet, many of them were administrative actions to curb investment in specific sectors. Efforts to alter investor incentives through across-the-board changes in market conditions, such as interest rate hikes or currency appreciation, were much more limited. Thus, there is a risk that investment can reaccelerate, which would build vulnerabilities characteristic of an economic bubble.

And sixth, East Asian economies are also vulnerable to the low-probability but high-impact risks of an avian flu pandemic, or an escalation of the recent geopolitical tensions in the Korean

Table 10: **Confirmed Human Cases of Avian Influenza A/(H5N1)—**reported as of 29 November 2006

| | | Date of onset | | | | |
|---|---|---|---|---|---|---|
| | | 2003 | 2004 | 2005 | 2006 | Total |
| ASEAN+3 (I) | cases | 4 | 46 | 97 | 72 | 219 |
| | casualties | 4 | 32 | 42 | 58 | 136 |
| Cambodia | cases | 0 | 0 | 4 | 2 | 6 |
| | casualties | 0 | 0 | 4 | 2 | 6 |
| China, People's Rep. of | cases | 1 | 0 | 8 | 12 | 21 |
| | casualties | 1 | 0 | 5 | 8 | 14 |
| Indonesia | cases | 0 | 0 | 19 | 55 | 74 |
| | casualties | 0 | 0 | 12 | 45 | 57 |
| Thailand | cases | 0 | 17 | 5 | 3 | 25 |
| | casualties | 0 | 12 | 2 | 3 | 17 |
| Viet Nam | cases | 3 | 29 | 61 | 0 | 93 |
| | casualties | 3 | 20 | 19 | 0 | 42 |
| Other regions (II) | cases | 0 | 0 | 0 | 39 | 39 |
| | casualties | 0 | 0 | 0 | 18 | 18 |
| Total (I)+(II) | cases | 4 | 46 | 97 | 111 | 258 |
| | casualties | 4 | 32 | 42 | 76 | 154 |
| | casualties (%) | 100 | 70 | 43 | 68 | 60 |

Notes:
1. Total number of cases includes number of casualties.
2. The World Health Organization reports only laboratory-confirmed cases.
Source: World Health Organization.

[20]IMF, *World Economic Outlook*, September 2005, pp. 64–65.

peninsula. Avian flu casualties continue to mount quietly, making 2006 the deadliest year to date (Table 10). Given the potentially severe economic impact of a full-blown outbreak, the persistent presence of the disease in the region remains a concern. The recent nuclear test in North Korea is a much more serious threat. This raises the specter of a serious shock to East Asia's financial and economic systems if the implied threat is carried out. Its seeming unlikelihood must be contrasted with the potentially damaging economic impact.

## Policy Issues

Given the outlook for slower growth and reduced inflationary pressure, the case for additional increases in policy interest rates is less clear in most East Asian economies. In some—such as the PRC—the risk of overheating persists, and the effect of measures already taken must be watched closely. In Japan, the economy is forecast to remain above potential growth, but with core inflation still negative or near zero, a cautious approach to further increases in policy rates is merited. In other cases, such as Indonesia, and possibly the Philippines, easing of relatively tight monetary conditions might be warranted if inflation continues to ebb.

The outlook for slowing, but still solid GDP growth rates also offers limited rationale for aggressive fiscal expansion in the near term, although increased public spending on priority infrastructure and social services may be desirable. In some instances, providing short-term pump-priming fiscal stimulus in response to the expected softening of export prospects would risk crowding out the expansion of private domestic demand. However, with monetary policy stabilizing and inflationary pressures softening, there may be additional space in some economies for modest but well-crafted public infrastructure investment programs that address critical structural constraints to domestic investment. Such policies could buttress economies against external downturns over the medium term and enable the region to contribute to the orderly resolution of the global payments imbalance.

To address structural vulnerabilities, policies should focus on alleviating constraints on domestic investment, including imparting greater exchange rate flexibility. Although there are many constraints on domestic market-oriented investment, policies that move the sources of growth away from exports toward domestic demand are of particular importance. Imparting

greater exchange rate flexibility should be a crucial component of such policy measures. A more flexible exchange rate would not only foster domestic market demand but would also reduce vulnerabilities to a disruptive correction of global payments imbalance.

Domestic investment opportunities could also be enhanced by measures to increase energy efficiency. Regional economies have some of the highest rates of energy use relative to GDP (energy intensities) in the world, making them especially vulnerable to imported inflationary pressure from oil price spikes. Inefficiencies in domestic energy markets are costly, regardless of whether these costs are borne directly by consumers or indirectly by taxpayers and energy-providers. When directly confronted with the costs of energy consumption, the public will eliminate low-value but high cost uses, thus freeing public and private resources for other priority welfare-enhancing expenditures, such as in social sectors. Moreover, reducing these distortions to local markets by gradually eliminating subsidies and price controls would foster more dynamic development of local energy markets through cost-saving innovation and job-producing investments. Policies that promote domestic market efficiency can lead to more investment.

Among ASEAN economies, efficient financial and corporate sectors are essential to dynamic domestic expansion through a revival of investment, especially private investment. In many regional economies, it was private domestic investment that collapsed in the wake of the 1997/98 financial crisis, and it never recovered. In part, this was because some of that investment was ultimately unproductive, and the subsequent collapse left large excess capacity. Moreover, with domestic demand crippled, the policy focus turned to securing export markets and to financial and corporate restructuring. Policymakers should now increasingly focus on promoting investment by enhancing the capacity of regional financial markets and domestic corporate sectors to keep pace with global financial innovations and international standards of corporate governance.

In the PRC, in contrast, the focus should be on enhancing the quality, rather than the volume, of investment. To reduce the risk that excess investment reemerges, steps should be taken to improve the basic market mechanisms that influence investment decisions. Fundamentally, the cost of funds available for investment should reflect true economic costs. Actions might

include (i) draining retained earnings of state-owned enterprises into public coffers and redirecting those funds to more socially-productive investments (for example, in social and environmental protection), (ii) strengthening banking oversight to ensure greater insulation from political influence and improved evaluation of credit worthiness, and (iii) reducing excess liquidity in the banking system, which is partly fueled by exchange market interventions. These actions to address the fundamental causes of over-investment are vital to bring about a smooth transition of the economy to a longer-term growth path. The longer excessive rates of economic growth persist, the greater the possibility that the eventual slowdown will be sharp, with adverse effects on other economies in the region.

Another priority is to develop rapid-response systems that can minimize damage from exogenous shocks. Whether the threat is from regimes, terrorists, health pandemics, or natural disasters, it is important to be prepared against any serious disruption of strategic information, financial, and transportation systems that could amplify the initial impact of the shock. This means thinking about the unthinkable. It involves such actions as developing strategies for rapid monetary responses to restore liquidity to severely distressed financial markets—as was done by the US Federal Reserve in the immediate aftermath of the 9-11 assault. Other key policies include improving and securing information and transportation systems so that both public and private sector participants can respond quickly to sudden, disruptive events.

Although the set of priority policies identified here must be tailored to national conditions, they represent responses to common threats that can be complemented by actions at the regional level. Discussion of risks and threats during regional policy dialogues is an initial, valuable step toward a common understanding of shared regional challenges. In addition, in some cases, collective policies can compliment and bolster the effectiveness of national policies. For example, collective efforts to enhance understanding of the regional economy would be beneficial. A common framework could highlight the potentially beneficial regional spillover effects of some of the policies that reduce exposure to external markets and the risks posed by the global payments imbalance, for example. This could be conducive to the creation of action plans that achieve common interests. In addition, regional coordination of efforts to secure strategic systems against disruption would create synergies, reduce costs, and increase efficiency and effectiveness.