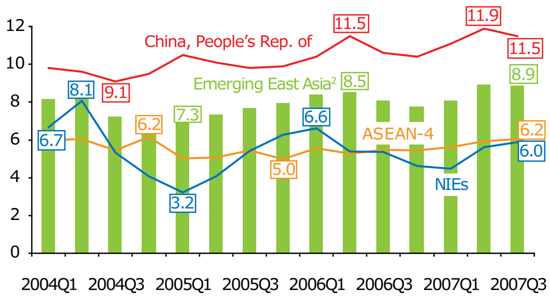
Emerging East Asia—A Regional Economic Update

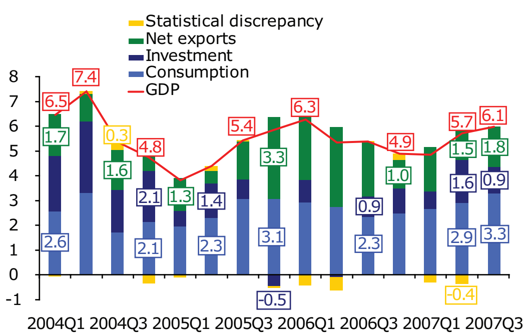
Recent Economic Performance

Figure 1: **GDP[1] Growth—Emerging East Asia[2]**



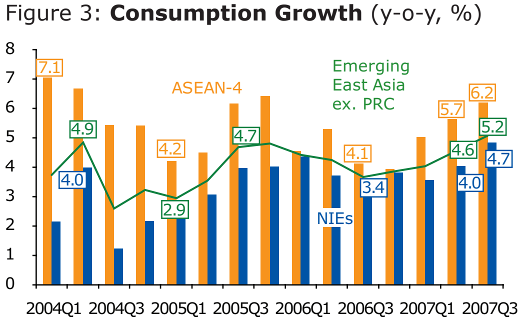
[1] Weighted by gross national income (atlas method, current $).
[2] Includes ASEAN-4, NIEs, and People's Republic of China (PRC). Aggregates do not include Brunei Darussalam, Cambodia, Lao PDR, Myanmar, and Viet Nam for which quarterly GDP data are not available.
Source: OREI staff calculations based on national sources.

Figure 2: **Contributions to GDP Growth—Emerging East Asia ex. PRC** (y-o-y, %)



Source: OREI staff calculations based on CEIC data.

Figure 3: **Consumption Growth** (y-o-y, %)



Source: OREI staff calculations based on CEIC data.

GDP Growth

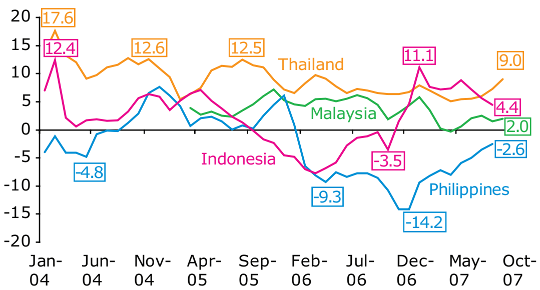
Economic growth in emerging East Asia remained strong in the second half of 2007, in many cases performing better-than-expected—supported by healthy growth in consumption, investment, and continued solid exports.

Economic growth in emerging East Asia in the second half of 2007 likely sustained the momentum of the brisk first half. Combined gross domestic product (GDP) of the nine largest economies in emerging East Asia[1] grew 8.9% (year-on-year) in the third quarter of 2007—or 6.1% excluding the People's Republic of China (PRC)—the highest in recent years **(Figure 1)**. In the PRC, GDP grew 11.5% in the third quarter, the same as in the first half. The four middle-income countries of the Association of Southeast Asian Nations (ASEAN-4) grew 6.2%, higher than the 5.7% recorded in the first half. GDP growth in the four newly-industrialized economies (NIEs)—Hong Kong, China; Republic of Korea (Korea); Singapore; and Taipei,China—accelerated to 6.0% in the third quarter from 5.0% in the first half.

Excluding the PRC, robust growth was supported by strong consumption demand and solid exports **(Figure 2)**. The external sector contributed strongly to the overall expansion despite the slowdown in the United States (US) economy, driven by relatively healthy growth in the euro zone and ongoing recovery in Japan. Private consumption in the region also strengthened markedly over the past 3 quarters of 2007. Private consumption grew 5.2% in the third quarter, up from 4.6% in the previous quarter **(Figure 3)**.

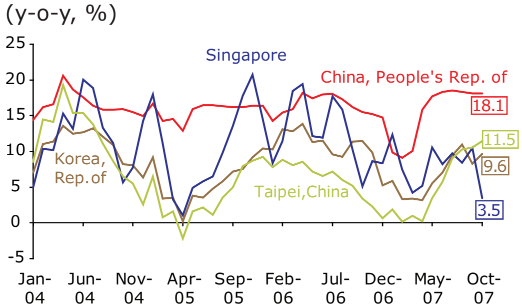
[1] The nine largest emerging East Asian economies are People's Republic of China (PRC); Hong Kong, China; Indonesia; Republic of Korea (Korea); Malaysia; Philippines; Singapore; Taipei,China; and Thailand.

Figure 4a: **Industrial Production Growth**[1] (y-o-y, %)



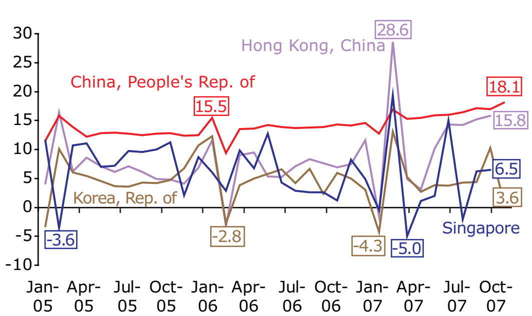
[1] 3-month moving average.
Source: OREI staff calculations based on CEIC data.

Figure 4b: **Industrial Production Growth**[1] (y-o-y, %)



[1] 3-month moving average.
Source: OREI staff calculations based on CEIC data.

Figure 5: **Retail Sales Growth** (y-o-y, %)



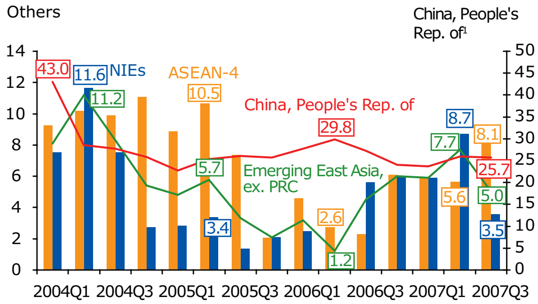
Source: CEIC.

Early indicators suggest strong growth in the region will likely continue in the fourth quarter, although at a somewhat more moderate pace. Industrial production remained generally healthy across the region, except in the Philippines, where it continued to contract **(Figure 4a, 4b)**. But industrial production growth may have peaked in several economies, including the PRC, Korea, and Singapore, and remained modest in Indonesia and Malaysia. Retail sales also point to a relatively strong second half, with growth in the PRC; Hong Kong, China; Korea; and Singapore generally higher in the third quarter than in the first 6 months of the year **(Figure 5)**.

In the PRC, strong investment, solid consumption, and resilient exports supported high GDP growth. The investment boom regained strength in 2007 after easing somewhat in the second half of 2006, with fixed-asset investment edging up to 25.7% (year-on-year) in the third quarter, from 24% in 2006 **(Figure 6)**. Consumer spending grew steadily, with retail sales growth on an upward trend—reaching a record 18.1% in October. The external sector also remained strong in the PRC, despite measures to cool export growth, such as a downward adjustment to the export tax rebate system, and even amid concern about product quality and safety. Exports were up 27.1% in the first 3 quarters of the year, just under the 27.2% growth rate for all of 2006.

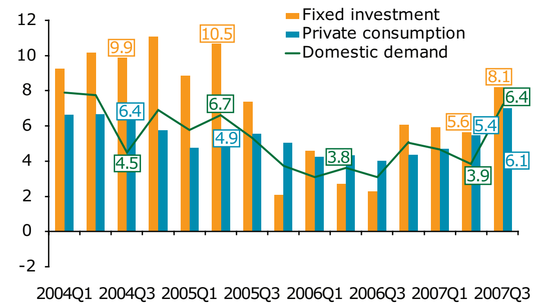
A strong recovery in domestic demand boosted growth in the ASEAN-4 economies **(Figure 7)**. But Thailand was an exception as lingering political uncertainty ahead of the 23 December elections affected private consumption and investment demand. Consumption growth was the weakest in 6 years and fixed investment fell by 0.7% in the first half. But private consumption generally increased in the other ASEAN-4 countries, fueled by public sector salary hikes, healthy labor markets, and stronger overseas remittances, which propped up household income and spending. Fixed investment also picked up strongly in the ASEAN-4 countries, contributing about 1.7 percentage points to total GDP growth of 6.2% in the third quarter **(Figure 8)**. Election-related government spending in the Philippines and infrastructure program disbursements in the other ASEAN-4 economies provided an additional boost to consumption and investment. Meanwhile, in the ASEAN-4 countries, the contribution of net exports to GDP growth fell to 0.6 percentage point in the third quarter, down from 3.4 percentage points in the second quarter **(Figure 9)**. The main factors include the weakening external environment and

Figure 6: **Fixed Assets Growth** (y-o-y, %)



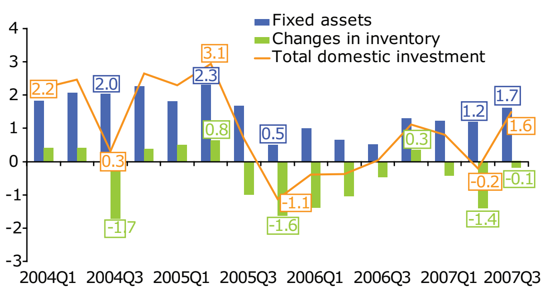
[1] PRC figures are based on nominal fixed-asset investment growth (year-to-date).
Source: OREI staff calculations based on CEIC data.

Figure 7: **ASEAN-4 Domestic Demand Growth** (y-o-y, %)



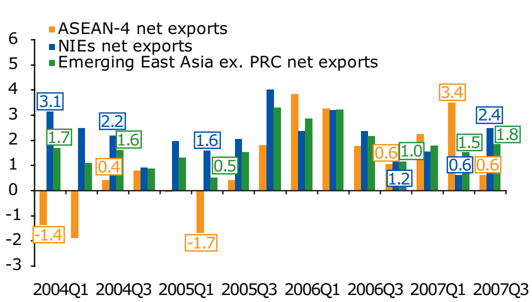
Source: OREI staff calculations based on CEIC data.

Figure 8: **Investment Contributions to GDP Growth: ASEAN-4** (y-o-y, %)



Source: OREI staff calculations based on CEIC data.

Figure 9: **Contributions of Net Exports to GDP Growth** (y-o-y, %)



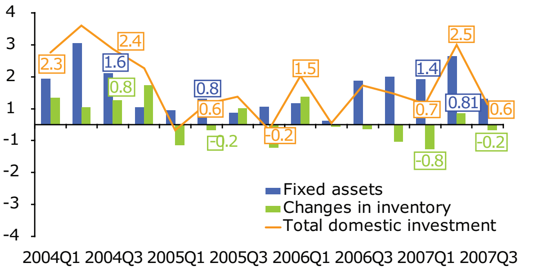
Source: OREI staff calculations based on CEIC data.

strengthening currencies, but strengthening domestic demand has also begun to help narrow trade surpluses. In the Philippines, for example, the appreciation of the peso in real terms—mainly due to strong capital inflows combined with a surge in overseas worker remittances—has hurt the export competitiveness of the manufacturing sector and seen exports slowing. Remittances have bolstered private consumption, however, and the services sector has become the main driver of strong growth this year in the Philippines, contributing 3.6 percentage points to the 6.6% third-quarter expansion.

Private consumption also strengthened in the NIEs (see Figure 3). In Hong Kong, China, private consumption picked up as income and wealth increased amid strong employment and healthy gains in the equity markets. In Korea, the on-and-off recovery from 2003's household debt-related contraction has steadied, with support from a tighter labor market and booming equity markets. And in Singapore and Taipei,China, private consumption was boosted by tight labor and stronger property markets. Investment in the NIEs economies also remains buoyant, although it eased in the third quarter from strong growth in the previous quarter: its contribution declined to 0.6 percentage points, from 2.5 in the second quarter **(Figure 10)**. Fixed investment, specifically in plant and facilities, picked up in Taipei,China on capital expansion in the semiconductor sector. Private investment remained strong in Singapore and Hong Kong, China, supported by rapid construction sector growth. Korea's fixed investment held up as well, despite slowing construction demand. Non-construction business investment, in particular, made a strong showing in recent quarters on the back of recovery in domestic demand.

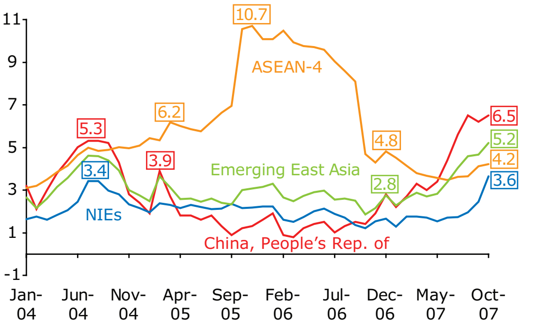
In Viet Nam, third-quarter GDP growth of 8.7% was the highest in a decade, aided by continued expansion in industry, construction, and services. GDP in Brunei Darussalam contracted 1.7% in the first half of 2007, after strong growth in 2006, largely on a drop in oil production. In Cambodia, a gradual deceleration in GDP growth continued as external demand softened and private consumption eased, although the pace likely remained strong at an estimated 9.2% this year. In the Lao People's Democratic Republic (Lao PDR), GDP likely grew 6.8% in 2007 as foreign investment drove robust expansion of the industrial sector, especially in mining and energy. In Myanmar, independent projections put GDP growth in a range of about 3–6% for the 2007 fiscal year.

Figure 10: **Investment Contributions to GDP Growth: NIEs** (y-o-y, %)



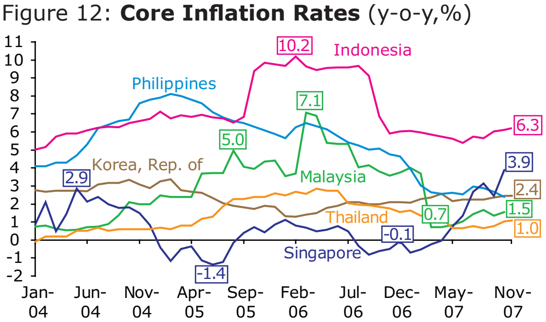
Source: OREI staff calculations based on CEIC data.

Figure 11: **Regional Inflation—Headline Rates** (y-o-y, %)



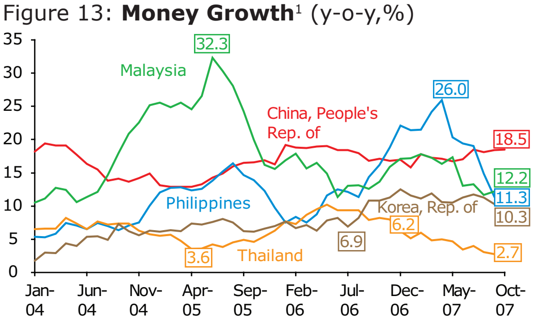
Source: OREI staff calculations based on CEIC data.

Figure 12: **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 CEIC data.

Figure 13: **Money Growth**[1] (y-o-y,%)



[1] M2.
Source: CEIC.

Inflation

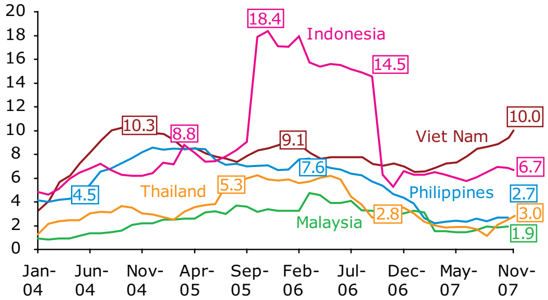
Inflationary pressures have been increasing across the region over the past several months, with headline inflation reaching multi-year highs in several economies on higher food and energy prices.

While headline inflation started to rise in the ASEAN-4 economies, it reached a 16-year high in Singapore, 12-year highs in the PRC and Taipei,China, and a 9-year high in Hong Kong, China. In recent months, it was also at its highest since 2005 in Korea and in Viet Nam. On average, the region's inflation was up 5.2% in October 2007; from a recent low of 1.9% in October 2006 **(Figure 11)**.The rise in headline inflation is mainly attributed to rapid and persistent increases in food and energy prices resulting from real capacity constraints—not simply one-off events such as poor weather. Core inflation is also increasing in some economies **(Figure 12)**. Persistent high growth in monetary aggregates may have also contributed to rising inflationary pressures **(Figure 13)**.

In the PRC, the consumer price index hit a 12-year high of 6.5% in August and again in October—from a low of 1% in July 2006—putting pressure on the central bank to further tighten monetary policy. Surging food prices (up 17.6% over the year to October) have driven headline inflation in recent months. The underlying factor, however, is ample liquidity in the economy as a result of persistently large capital inflows and strong money growth in recent years due to incomplete sterilization. Rapid asset price inflation has already been a significant macroeconomic problem in the PRC. And now, headline inflation also exceeds returns on bank deposits, encouraging more households to put their money in the already overheating stock markets—which the authorities have been trying to cool.

Inflation in ASEAN countries has increased in recent months as strong growth continues to close the output gap and energy and food prices rise. In Indonesia, exemplifying the ASEAN-4 trend, inflation was back up to 6.7% in November, after falling to 5.8% in June 2007. In the past 6 months, inflation also drifted higher in Malaysia (from about 1.5% to close to 2%), the Philippines (from around 2.3% to 2.7%), and in Thailand (from below 2% to 3.0%) **(Figure 14)**. And with the possible removal of remaining fuel subsidies in the retail market, inflation may have risen still

Figure 14: **Inflation in Selected ASEAN Economies—Headline Rates** (y-o-y, %)



Sources: OREI staff calculations based on data from CEIC and *International Financial Statistics*, International Monetary Fund.

further in Malaysia during the course of the year. A strong peso in the Philippines and weaker demand in Thailand should help ease inflation in both countries. Meanwhile, fast growth also contributed to inflation in smaller countries: November consumer prices in Viet Nam were up 10.0% over a year earlier, the highest in nearly 3 years.

The NIEs have seen inflation rising quickly in recent months—most significantly in Taipei,China (5.3% in October), and in Singapore (3.6% in October), where inflation was below 1% in the first half of 2007. While higher oil prices pushed up headline inflation, about half of the increase in Singapore was due to the hike in the goods and service taxes. Higher food, oil, and other commodity prices, alongside rising wages due to relatively tight labor markets and the pass-through of increasing business costs, have fueled inflationary pressures in the NIEs.

Balance of Payments

Current account surpluses continued to grow, and with capital inflows remaining strong through the first 9 months of 2007, balance of payments positions strengthened across much of the region.

Third-quarter export growth (in value terms) in emerging East Asia softened, although it was still robust. However, import growth slowed more and the combined trade surplus widened as a result, compared with the same period in 2006. Exports slowed largely because of a cyclical downswing in the global information technology industry, while imports eased because of related inventory adjustments in the industry over the past few quarters. Despite strengthening domestic demand, current account surpluses across the region were sustained going into the second half of 2007. Capital inflows also remained strong in the first 9 months, contributing to a significantly stronger balance of payments. International reserves continued to build as central banks intervened in foreign exchange markets to curb the rapid pace of currency appreciation.

In the PRC, exports grew a blistering 26.2% in the third quarter of 2007, though marginally slower than the 27.6% of the first half. Import growth accelerated to 21% in the same period, above the 18% of the first half. The trade surplus reached more than $212 billion in the first 10 months of the year, already 20% above the entire 2006 total. That is partially due to a rush to move goods before certain export tax rebates were abolished or reduced on 1 July. The bigger trade surplus may also derive from accelerated export receipts or delayed import payments as the private sector is expecting a further appreciation of the renminbi **(Table 1a)**.

The aggregate ASEAN-4 trade surplus remained high in the first half of 2007, despite a slowdown in exports **(Table 1b)**. The current account balance improved dramatically by 79% year-on-year due to a strong trade surplus, maintaining a healthy overall balance of payments position with an additional small surplus on the financial account. A strong current account surplus in Thailand was fueled by rapid export growth in electronics, vehicles, and iron products. Export growth eased somewhat in Malaysia, but remained robust in recent months in Indonesia. The Philippines has been running trade deficits, but it has posted current account

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

	2004H1	2004H2	2005H1	2005H2	2006H1	2006H2	2007H1
Current Account	1.1	7.3	7.0	12.7	8.0	16.7	11.8
Net Goods Balance	0.8	6.3	5.6	10.6	7.0	14.6	9.8
Net Services	-0.8	-1.0	-0.4	-0.7	-0.5	-0.6	-0.2
Net Income	-0.3	-0.4	0.5	0.8	0.3	0.8	0.9
Net Transfers	1.4	2.4	1.3	2.0	1.2	2.0	1.3
Capital Account	0.0	0.0	0.2	0.3	0.2	0.3	0.1
Financial Account	9.4	11.8	3.7	4.7	3.2	0.4	6.4
Net Direct Investment	4.3	5.7	2.3	5.4	2.7	4.0	3.7
Net Portfolio Investment	3.9	2.1	-0.1	-0.4	-2.6	-4.5	-0.3
Net Other Investment	1.2	4.0	1.5	-0.3	3.1	0.9	3.1
Net Errors & Omissions	-1.0	2.9	-0.5	-1.3	-0.7	-0.9	0.9
Overall Balance	9.4	22.0	10.4	16.4	10.7	16.6	19.2

Sources: *International Financial Statistics Online*, International Monetary Fund; and CEIC.

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

	2004H1	2004H2	2005H1	2005H2	2006H1	2006H2	2007H1
Current Account	2.2	4.5	1.2	2.9	3.9	6.3	5.9
Net Goods Balance	7.4	9.5	5.2	7.9	7.7	9.7	7.3
Net Services	-2.6	-2.8	-2.5	-3.2	-2.5	-2.4	-0.7
Net Income	-3.9	-3.6	-3.5	-4.1	-3.3	-3.0	-2.6
Net Transfers	1.4	1.4	1.9	2.3	2.0	2.0	2.0
Capital Account	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Financial Account	0.4	1.7	3.2	-2.5	1.2	-2.5	1.1
Net Direct Investment	0.9	1.3	2.9	1.9	2.1	1.5	0.7
Net Portfolio Investment	1.9	3.0	2.3	0.5	1.9	1.8	4.3
Net Other Investment	-2.4	-2.7	-1.9	-4.9	-2.8	-5.8	-4.0
Net Errors & Omissions	0.7	-1.3	-1.6	-0.7	0.1	-0.6	-0.6
Overall Balance	3.3	4.8	2.8	-0.3	5.3	3.2	6.4

Sources: *International Financial Statistics Online*, International Monetary Fund; and CEIC.

surpluses because of the strong inflow of remittances from overseas Filipino workers—amounting to about 10% of GDP in the first half of 2007. In aggregate, the ASEAN-4 financial account showed a small surplus in the first half of 2007—in contrast to a large deficit in the second half of last year—resulting in an overall balance of payments surplus of about $30 billion. Foreign direct investment remained robust, but it was portfolio investment flows which rose sharply to about $20 billion in the first half from the $15 billion in 2006. Partly due to debt repayments, the "other investment" account has been persistently deep in deficit in recent years.

The three smaller NIEs had large current account surpluses in the first half, but Korea ran a small deficit. The reversal in Korea was largely due to a huge deficit in its services trade, caused by persistent growth in outbound tourism. Hong Kong, China's strong services trade and income receipts on its assets abroad led to a healthy current account, in spite of a deficit in goods trade. In the third quarter, export growth remained generally robust in the NIEs, with a modest drop in import growth, pointing to a continued surplus in the aggregate current account. The NIEs financial account performance was quite varied **(Table 1c)**. In the first half, while capital flowed into Korea (mainly in the form of other investments to help hedging activities of its shipbuilding industry), it flowed out of Taipei,China (mainly portfolio outflows), and out of Singapore and Hong Kong, China (in the form of other investment outflows). In Korea, net inflows in other investments were almost three times net outflows in portfolio investments. This has been the trend over the past year or so, reflecting the sharp rise in hedging by Korean shipbuilders for surging export orders. But recently, domestic banks' on-shore lending activities

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

	2004H1	2004H2	2005H1	2005H2	2006H1	2006H2	2007H1
Current Account	5.8	7.2	5.2	5.9	4.5	6.5	5.8
Net Goods Balance	5.6	6.4	4.9	6.1	4.6	5.9	4.9
Net Services	0.7	0.5	0.3	0.6	0.4	0.9	0.3
Net Income	0.3	1.0	0.7	-0.2	0.3	0.4	1.3
Net Transfers	-0.8	-0.7	-0.7	-0.7	-0.8	-0.7	-0.7
Capital Account	-0.2	-0.2	-0.3	-0.2	-0.2	-0.2	-0.2
Financial Account	1.7	-3.1	0.3	-4.4	-1.9	-2.9	-3.5
Net Direct Investment	-0.3	0.2	1.8	0.2	1.1	0.4	0.9
Net Portfolio Investment	-6.7	-0.2	-5.0	-1.3	-5.5	-5.8	-4.0
Net Other Investment	8.7	-3.2	3.5	-3.3	2.5	2.4	-0.4
Net Errors & Omissions	0.5	1.0	0.6	0.6	0.8	-0.1	0.2
Overall Balance	7.8	4.9	5.8	1.8	3.2	3.3	2.3

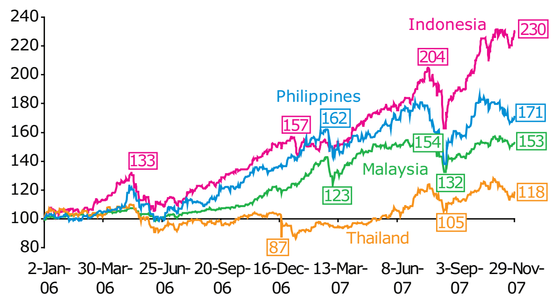
Sources: *International Financial Statistics Online*, International Monetary Fund; and CEIC.

in foreign currency have become stronger, some of which were made in yen, suggesting that borrowing from foreign banks might have been increasing partly to take advantage of widening yield differentials between domestic and foreign currencies.

Financial Markets and Exchange Rates

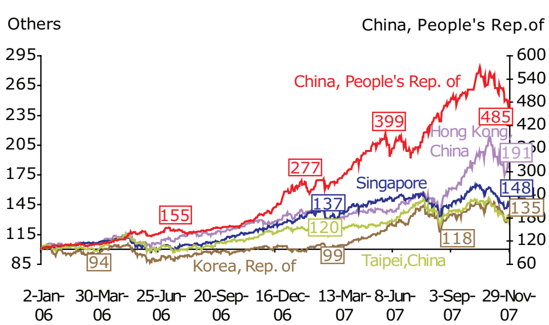
Financial markets across the region quickly recovered from the expansive wave of US subprime turmoil in July and August—many reaching record highs fueled by large portfolio inflows—raising concern among policy makers about the risk of an equity market bubble.

Figure 15a: **Composite Stock Price Indexes[1]—ASEAN-4** (last price daily, 2 January 2006 = 100, local index)



[1] Daily stock price indexes of JCI (Indonesia), KLCI (Malaysia), PCOMP (Philippines), and SET (Thailand)
Source: OREI staff calculations based on Bloomberg data.

Figure 15b: **Composite Stock Price Indexes[1]—NIEs and PRC**
(last price daily, 2 January 2006 = 100, local index)



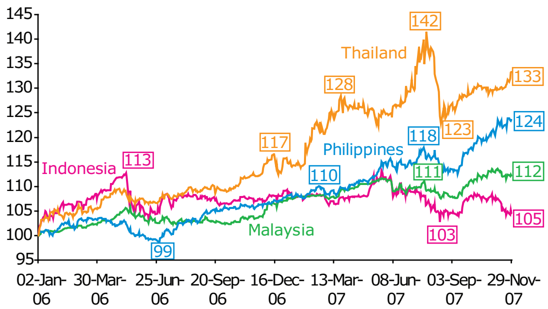
[1] Daily stock price indexes of Hang Seng (Hong Kong, China), KOSPI (Korea), STI (Singapore), TWSE (Taipei,China), and combined Shanghai and Shenzhen Composite (PRC), weighted by their respective market capitalization.
Source: OREI staff calculations based on Bloomberg data.

After a sharp sell-off in late-July and early-August amid concerns about US subprime mortgages and the implications for US growth, most equity markets in emerging East Asia recovered quickly **(Figures 15a, 15b)**. Booming equity markets in the PRC were barely affected by the global financial turmoil, although they have been losing steam in recent months. The rest of regional equity markets also retreated somewhat in November amid concern about a further slowdown in the global economy. Currencies in the region fell briefly at the height of the turbulence as capital fled and pushed the US dollar higher. But since late August, currencies in the region have appreciated significantly against the dollar on further evidence of a slowing US economy and three subsequent US Federal Reserve policy rate cuts, totaling 100 basis points. **(Figures 16a, 16b)**.

Excluding the PRC, gains in equity prices over the year—through the end of November—ranged from 10% in Taipei,China to 49% in Indonesia. In the PRC, equity prices have been rising even faster, with the stock price index in Shanghai gaining 130% by mid-October for the year, on top of a 148% rise in 2006. Since then (through end-November), however, the Shanghai Composite Index has fallen by almost 20% as the authorities continued to tighten monetary policy.

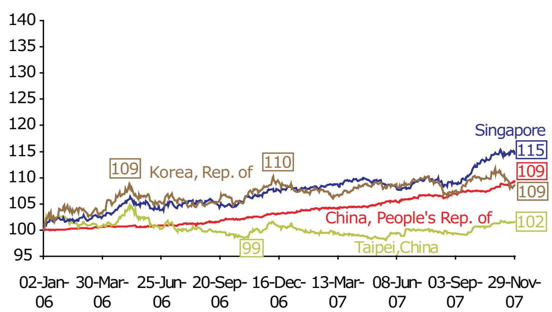
Now policymakers in some economies are becoming increasingly anxious about the risk of an equity market bubble driven by strong capital inflows and ample liquidity. Across the region, equity markets have been on a quick rise, putting authorities in a bind because raising policy rates may attract further portfolio

Figure 16a: **Exchange Rate Indexes—ASEAN-4** (2 Jan 2006=100)



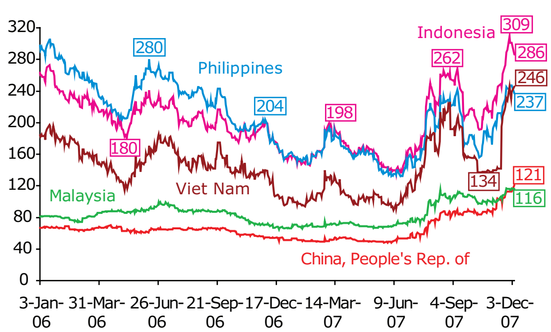
Source: OREI staff calculations based on Bloomberg data.

Figure 16b: **Exchange Rate Indexes—NIEs[1] and PRC** (2 Jan 2006=100)



[1] Rep. of Korea; Singapore; and Taipei,China.
Source: Bloomberg.

Figure 17: **JP Morgan EMBI Sovereign Stripped Spreads** (basis points)



Source: Bloomberg.

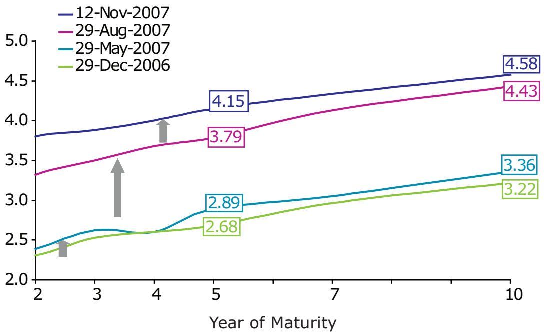
inflows, which are already strong. Meanwhile, an unwinding of carry trades on the yen (and other low-yielding currencies) remains a worry given heightened financial uncertainty. A partial unwinding occurred briefly during the recent market turmoil as a part of re-pricing of risks. If investors, who previously borrowed low-yielding currencies to invest in high-yielding emerging market assets and currencies, choose to close their positions, it could significantly exacerbate volatility in financial markets.

Currency appreciation against the US dollar gained momentum throughout much of 2007, with exchange rates up nearly 5% on average since the beginning of the year.

Strong balance of payments positions from current and capital account surpluses continued to put upward pressure on most currencies in the region. In the first 11 months of 2007, the region's currencies appreciated 4.8% against the US dollar on average, and by 4.1% since mid-August. Central banks continued to intervene in foreign exchange markets to curb the appreciation (particularly since August), as indicated by rising foreign exchange reserves. In the year to date, the Philippine peso and the Thai baht (both up 15%) outperformed other currencies, largely supported by growing current account surpluses. The Malaysian ringgit, Singapore dollar, and the PRC renminbi have appreciated by 5–6% so far in 2007, with other currencies in the region fairly steady, though volatile in recent months. The People's Bank of China allowed the renminbi to appreciate 0.5% in the last week of October, the biggest weekly rise since it moved to a managed float in July 2005. This suggests it may have decided to accelerate the pace of appreciation.

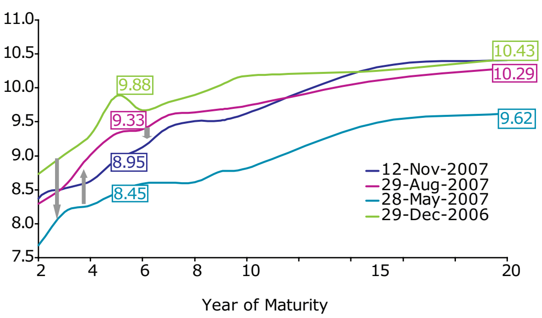
Sovereign bond spreads over US Treasuries widened in July and August as the financial turmoil intensified, particularly in Indonesia and the Philippines. After narrowing somewhat during September and October, these spreads widened even further in November, as the specter of a sharper US slowdown increased and investors' risk appetite decreased **(Figure 17)**. And by end-August, yield curves had shifted up in most emerging Asian economies compared with the second quarter—again, particularly in Indonesia and the Philippines. In the PRC; Korea; and Taipei,China; the upward shift may also have been the outcome of continued monetary tightening in these economies in the third quarter. Interest rates in the PRC were on the rise

Figure 18a: **PRC Benchmark Yields**
(% per annum)



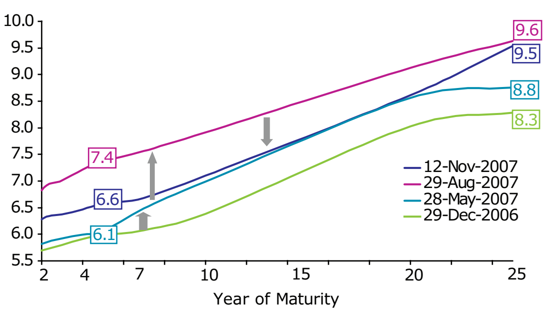
Source: Bloomberg.

Figure 18b: **Indonesia Benchmark Yields**
(% per annum)



Source: Bloomberg.

Figure 18c: **Philippines Benchmark Yields**
(% per annum)



Source: Bloomberg.

in 2007, compared with end-2006, as authorities tried to cool an overheating economy. Yield curves in most economies also steepened this year, mirroring the trend in world markets. In Indonesia, Philippines, and Thailand, curves steepened as loose monetary policy pushed down yields on shorter maturities, while rising inflation pushed the yields higher on bonds with longer maturities **(Figures 18a, 18b, 18c)**.

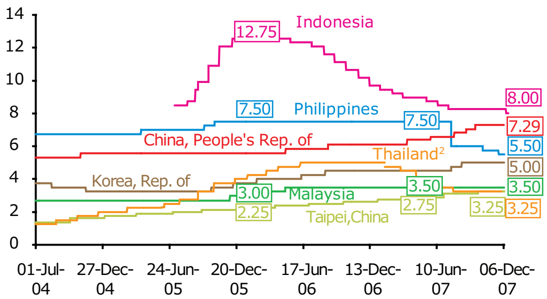
Monetary and Fiscal Policy

Monetary policies across the region have become more cautious since the July global financial turbulence—given the increased volatility of the region's financial markets, inflationary pressures, and the uncertain outlook for major industrialized economies.

East Asia's monetary authorities have been cautious since July 2007, with economies buoyant, inflation on the rise, yet with an uncertain outlook for the external environment and for financial volatility. Thailand has kept policy rates unchanged since July, when it lowered rates. Malaysia has not changed its policy rate since April 2006—the last time it raised the rate. Korea tightened policy in July and in August but has kept the rate steady since then. But the PRC and Taipei,China continued to tighten during September. Among the region's bigger economies, only Indonesia and the Philippines have lowered policy rates **(Figure 19).**

So far this year, the PRC central bank has raised its benchmark rate five times (1.17 percentage points) and the reserve requirement ratio 10 times (5.5 percentage points) in its effort to contain an increasingly overheating economy and surging stock markets. The most recent increase of the reserve requirement ratio of 1 percentage point will take effect on 25 December. Real interest rates remain very low, however, and there is growing concern that this is fueling resurgent investment and asset-price inflation. The authorities have also restricted loans for stock purchases and raised the stamp duty on share trading. The central bank widened the renminbi trading band against the US dollar from 0.3% to 0.5% in May. Money supply (M2) in recent months, however, has continued to grow above 18%, higher than the central bank's target of 16%. Given that the investment surge continues unabated and the stock indexes remain on the

Figure 19: **Policy Rates**[1] (% per annum)



Notes:
[1] Bank Indonesia rate, (Indonesia); overnight call rate (Korea); overnight policy rate (Malaysia); reverse repurchase rate (Philippines); official discount rate (Taipei,China); 1-year lending rate (PRC).
[2] Bank of Thailand switched its benchmark from the 14-day to 1-day reverse repurchase rate on 17 January 2007.
Source: Bloomberg.

rise, further monetary tightening is widely expected before the end of the year.

Indonesia paused its easing cycle from July through 6 December, when it lowered its policy rate to 8.0%. In its December statement, Bank Indonesia said it remains confident that inflation is on a long-term declining trend despite looming inflationary pressures. The Philippines also cut policy rates since July, lowering its discount rate three times and bringing it to 5.5% by November. It did so, however, in tandem with liquidity management measures to contain high money growth in the first half of the year. The Bank of Thailand maintained its policy interest rate at 3.25% in October, after inflation rose to a 9-month high of 2.5% in the same month—due to rising fuel costs. Malaysia has kept its policy unchanged since April 2006.

Among the NIEs, there has been some convergence in monetary policy direction. Citing robust growth and increasing inflation, the Bank of Korea raised its policy rate in July and August (by a total of 50 basis points). But it paused from September to November, pointing to stable growth and prices amid ample and increasing liquidity, even as oil prices rose and financial markets weathered higher volatility. Taipei,China has continued to hike its policy rate, which reached a 6-year high of 3.25% in September, bringing its monetary stance to a more neutral level. Taipei,China's interest rates are lower than in other emerging markets, encouraging capital outflows putting downward pressure on its currency. Due to rising inflation, the Singapore Monetary Authority slightly increased the slope of its nominal effective exchange rate policy band in October in order to cap inflationary pressures and ensure price stability over the medium term.

Governments in the region have maintained fiscal prudence, but budgetary trends diverged slightly as varied economic and social situations warranted different fiscal strategies.

On fiscal policy, most governments in the region have been prudent, although trends have varied **(Table 2)**. The PRC's fiscal position remains healthy with a modest deficit due to strong revenue growth, but authorities see a need for further improvement in the standards of fiscal management and practices. The government continues to adjust the emphasis and structure of expenditures, addressing weak links in economic and social

Table 2: **Fiscal Balance of Central Government** (% of GDP)

	2003	2004	2005	2006	2007[1]	2008[1]
Cambodia	-6.0	-4.7	-3.4	-1.5	-4.1	-3.2
China, People's Rep. of	-2.2	-1.3	-1.2	-0.5	-0.9	-1.2
Hong Kong, China	-3.3	1.7	1.0	1.6	1.9	2.3
Indonesia	-1.7	-1.0	-0.5	-1.0	-1.5	-1.7
Korea, Rep. of	0.1	-0.5	-1.0	-1.3	-1.5	-1.2
Malaysia	-5.3	-4.3	-3.8	-3.3	-3.2	-3.1
Philippines	-4.6	-3.8	-2.7	-1.1	-0.1	0.1
Singapore[2]	4.1	5.5	8.3	6.6	4.4	...
Taipei,China[2]	-3.0	-2.1	-1.7	-0.7	-1.9	...
Thailand[2]	0.6	0.3	0.2	0.1	-1.7	...
Viet Nam	-1.2	0.9	-1.2	-5.0	...	...

... = not available
[1] Budget.
[2] Fiscal year.
Sources: National sources; *Asian Development Outlook 2007*, Asian Development Bank; Economist Intelligence Unit; and World Bank.

development and improving rural public services, which will help promote balanced growth between rural and urban areas.

The NIEs have relatively strong fiscal positions. Singapore and Hong Kong, China were in surplus in 2006, which likely continued into 2007. Although Korea has run a primary fiscal surplus, its adjusted fiscal balance—which excludes social security funds and is closely monitored by the government—was in deficit. While its fiscal position remains generally sound, the growing costs of social security and welfare programs continue to constrain budgetary room. Taipei,China has reduced its budget deficit over the past few years, though it has budgeted a bigger deficit in 2007 than in 2006. Overall, the NIEs are moving toward fiscal consolidation, with ongoing efforts to improve revenue collection, broaden tax bases, rationalize incentives, and manage expenditures to efficiently address key public concerns. Revenues are expected to rise with economic growth, while expenditures and reforms are focused on moving toward a more equitable system. A major concern is the adequacy of social safety nets, in particular for an ageing workforce. The NIEs also need to resolve structural issues to maintain their competitive edge in the regional and global markets.

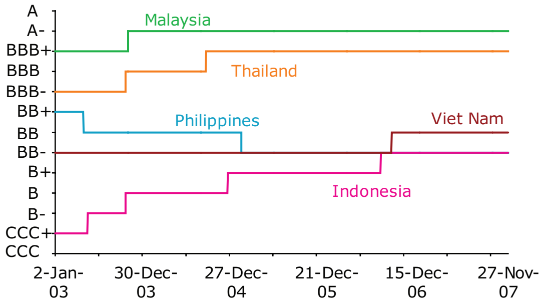
In Indonesia, the fiscal deficit has been kept at generally modest levels following the successful consolidation of recent years. The challenge remains in keeping the deficit around 1.0% of GDP and reducing government debt to 30% of GDP by 2009, while promoting a better investment climate and infrastructure development. Malaysia's fiscal position has improved recently, possibly due to stronger-than-expected oil-related revenues. But further spending is expected in relation to new investment projects and development programs planned under the Ninth Malaysian Plan. In Thailand, lingering political uncertainty and tightened governance rules have delayed disbursement of the planned fiscal expenditures, which limited its efforts to accelerate infrastructure spending in key utilities and services. The Philippine government, meanwhile, targeted a deficit of P63 billion in 2007 from P64.8 billion (1.1% of GDP) in 2006 and is expected to surpass its goal due to strong revenues and large privatization receipts. To ensure a balanced budget by 2008, stronger tax administration and continued restraint in expenditures are needed. Public sector debt in the ASEAN-4 economies has declined since 2003.

Assessment of Financial Vulnerability

Despite limited spillover into emerging East Asia from the US subprime turmoil, there are several signs of financial vulnerability related to sharp gains in equity and real estate prices.

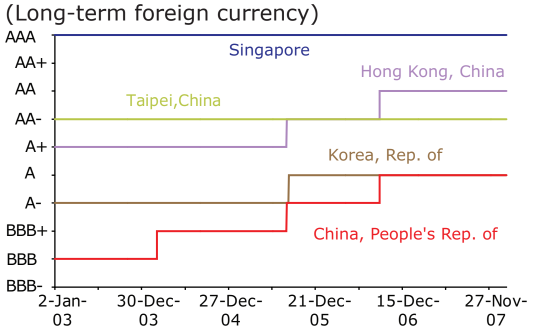
Recent turbulence in international financial markets has so far had only limited effect on the region's financial markets. Following sharp declines in the third quarter, regional equity markets have generally advanced—albeit amid higher volatility—and there has been sufficient liquidity in the region's short-term money markets. The resilience has been the result of the strengthening of macroeconomic and financial fundamentals in the region together with limited direct exposure to subprime and related financial products. The potential for spillover remains, however, as segments of the major international financial markets have not yet returned to normalcy, additional losses from subprime related products continue to appear, and a wider re-pricing of credit risk cannot be ruled out. In addition, elevated equity and real estate prices in a number of regional economies are at risk of correction in the event of further international turbulence. Reported large capital positions in regional banking systems, generally lower nonperforming loan (NPL) ratios, and improved cushions against market risk are grounds for guarded optimism, but not complacency.

Figure 20a: **S&P Sovereign Ratings**
(Long-term foreign currency)



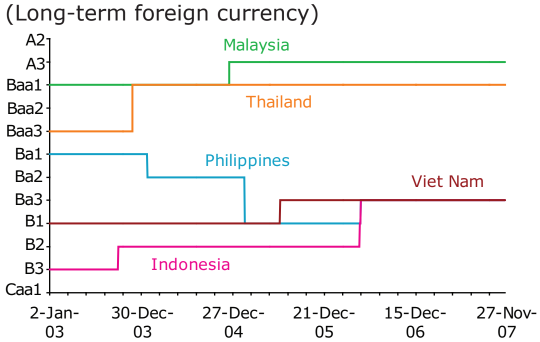
Source: Bloomberg.

Figure 20b: **S&P Sovereign Ratings**
(Long-term foreign currency)



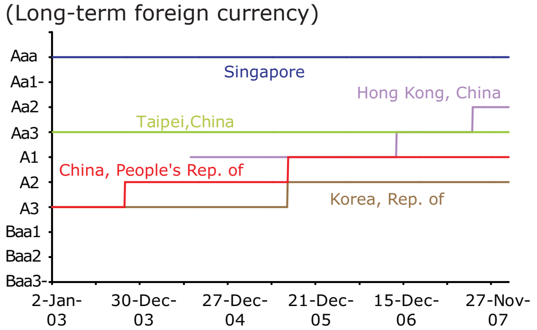
Source: Bloomberg.

Figure 20c: **Moody's Sovereign Ratings**
(Long-term foreign currency)



Source: Bloomberg.

Figure 20d: **Moody's Sovereign Ratings**
(Long-term foreign currency)



Source: Bloomberg.

Prudential Indicators

Prudential indicators for regional banking systems generally remain strong, with a sizable build up of capital cushions.

Favorable economic and financial conditions in recent years have played a key role in helping regional banking systems build up large capital cushions and return to profitability. Supported in many cases by official asset management companies, many banks have also substantially reduced their NPL ratios and strengthened asset quality. Reductions in public and external debt burdens to relatively low levels **(Table 3)** and upgrades in sovereign risk ratings have also played a key contributing role **(Figures 20a, 20b, 20c, 20d)**. Exposure to global market risk, however, is higher than in the past and any further worsening in international financial market conditions could prove challenging. Banking systems in the region entered the current period of financial turbulence with considerable strength. Most notably, NPL ratios have generally remained low or have fallen further **(Table 4a)**. In addition, regulatory capital cushions have generally been sustained at high levels **(Table 4b)**. Profitability in regional banking systems continued to be strong through the middle of the year as reflected in high rates of return on assets and equity **(Tables 4c, 4d)**. The high levels of profitability have reflected not only improvements in core lending activities, but also the recent favorable financial conditions that have boosted returns on banks' securities holdings.

Activity Indicators

Recent improvements in banking sector strength and soundness, sustained by strong macroeconomic fundamentals, reflect the improved risk profiles of regional banking systems, but they are now more closely linked to financial market conditions and thus more sensitive to movements in asset prices and returns.

Subdued lending to the business sector has made debt and equity investments an increasing share of bank assets, while banks also have moved aggressively into new areas such as household and real estate lending. Although banks' new business operations have helped profitability, they have also left the risk profiles of banking

Table 3: **Public and External Debt** (% of GDP)

	2003	2004	2005	2006	2007
Public Sector Debt					
China, People's Rep. of	19.2	18.5	17.9	17.3[p]	…
Indonesia[1]	58.3	55.2	45.6	38.6	35.7[p]
Korea, Rep. of[1]	22.0	25.2	29.5	32.2	33.3[p]
Malaysia	68.8	66.7	62.5	56.5[p]	55.6[p]
Philippines[2]	100.8	95.4	86.3[e]	77.4[p]	72.7[p]
Thailand	50.7	49.5	47.4	42.3[p]	39.2[p]
Viet Nam	40.8	42.7	43.7	45.5[p]	…
External Debt					
China, People's Rep. of	12.7	12.8	12.6	12.7[p]	…
Indonesia	57.7	53.5	46.6	36.6	31.2[p]
Korea, Rep. of	25.9	25.3	23.7	29.7	35.8[p]
Malaysia	47.3	44.6	39.6[e]	35.2[p]	33.5[p]
Philippines	78.8	70.5	62.6[e]	51.5[p]	46.7[p]
Thailand	36.2	31.7	29.5	27.5[p]	25.8[p]
Viet Nam	33.8	33.9	32.5[p]	32.6[p]	…

p = projection, e = estimate, … = not available.
[1] Central government debt.
[2] Nonfinancial public sector debt.
Source: Article IV Consultations, International Monetary Fund.

Table 4a: **Nonperforming Loans** (% of commercial bank loans)

	2001	2002	2003	2004	2005	2006	2007[1]
China, People's Rep. of	…	21.6	17.8	13.2	8.6	7.1	6.2
Hong Kong, China[2]	6.5	5.0	3.9	2.3	1.4	1.1	1.0
Indonesia	12.1	8.1	8.2	5.7	8.3	7.0	5.8
Korea, Rep. of	2.9	1.9	2.2	1.7	1.1	0.8	0.7
Malaysia[2]	10.5	9.3	8.3	6.8	5.6	4.8	3.5
Philippines[2]	17.3	15.0	14.1	12.7	8.2	6.0	5.3
Singapore	…	…	5.4	4.0	3.0	2.4[3]	…
Taipei,China	7.5	6.1	4.3	2.8	2.2	2.1	2.3
Thailand	10.5	15.7	12.8	10.9	8.3	4.2	4.4
Memo items: compromised assets ratio (Indonesia) and nonperforming assets ratio (Philippines)							
Indonesia	31.9	24.0	19.4	14.2	15.6	16.0[3]	…
Philippines	27.7	26.5	26.1	24.7	19.7	18.6[4]	…

… = not available
[1] Data for Hong Kong, China as of Mar 2007; Korea and Taipei,China as of Jun 2007; Philippines as of Aug 2007; Indonesia, Malaysia, PRC, and Thailand as of Sep 2007.
[2] Reported nonperforming loans are gross classified loan ratio of retail banks.
[3] As of Sep 2006.
[4] As of Jun 2006.
Notes:
1. The table excludes nonperforming loans 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 *Global Financial Stability Report*, International Monetary Fund.

Table 4b: **Risk-Weighted Capital Adequacy Ratios**
(% of risk-weighted assets)

	2003	2004	2005	2006	2007[1]
Hong Kong, China	15.3	15.4	14.8	14.9	13.6[3]
Indonesia	19.4	19.4	19.5	20.5	21.3
Korea, Rep. of	11.2	12.1	13.0	12.8	12.9
Malaysia	14.0	14.3	13.6	13.1	12.6
Philippines	17.4	18.7	17.7	18.5	…
Singapore	16.0	16.2	15.8	15.4[2]	…
Taipei,China	10.1	10.7	10.3	10.1	9.5
Thailand	14.0	13.0	14.2	14.5	15.4

… = not available.
Note: Based on officially reported risk-adjusted capital adequacy ratios under Basel I and applied to commercial banks (except Republic of Korea, where data includes nationwide commercial banks, regional banks, and specialized banks). Data for the Philippines is on a consolidated, not solo, basis.
[1] Data for Hong Kong, China as of Mar 2007; Korea and Taipei,China as of Jun 2007; Indonesia, Malaysia, and Thailand as of Sep 2007.
[2] Data for Singapore as of Sep 2006.
[3] Based on Basel II calculations. The previous years' calculations were based on Basel I.
Source: National sources.

Table 4c: **Rate of Return on Commercial Bank Assets**
(% per annum)

	2003	2004	2005	2006	2007H1
China, People's Rep. of	…	0.8	0.8	0.9	…
Hong Kong, China	1.4	1.5	1.6	1.5	1.7[2]
Indonesia	2.6	3.5	2.6	2.6	2.9
Korea, Rep. of	0.2	0.9	1.3	1.1	…
Malaysia	1.3	1.4	1.3	1.3	…
Philippines	1.2	1.0	1.1	1.3	1.1
Singapore	1.1	1.3	1.2	1.3[1]	…
Taipei,China	0.5	0.6	0.3	-0.4	0.3
Thailand	0.7	1.3	1.4	0.8	0.3

… = not available.
[1] As of Sep 2006.
[2] As of Mar 2007.
Sources: CEIC, national sources, and *Global Financial Stability Report,* International Monetary Fund (PRC and Indonesia).

Table 4d: **Rate of Return on Commercial Bank Equity**
(% per annum, end of period)

	2003	2004	2005	2006	2007H1
China, People's Rep. of	…	13.7	12.4	14.1	…
Hong Kong, China	16.9	18.7	18.4	18.9	…
Indonesia[1]	25.3	37.1	32.3	33.2	35.5[2]
Korea, Rep. of	3.4	15.2	18.4	14.6	…
Malaysia	15.3	16.0	16.5	16.1	…
Philippines	9.3	7.6	9.5	11.5	9.9
Singapore	10.3	11.8	11.1	12.4[3]	…
Taipei,China	6.5	8.8	4.4	-7.3	5.1
Thailand	15.7	15.7	14.2	8.5	5.7

…= not available.
[1] 2005 figure on a domestic consolidation basis; not strictly comparable with previous years.
[2] As of Mar 2007.
[3] As of Sep 2006.
Sources: CEIC, national sources, and IMF *Global Financial Stability Report,* International Monetary Fund (PRC and Indonesia).

systems more susceptible to movements in bond and equity prices, real estate prices, and consumer credit-worthiness.

As part of the preparation for the adoption of Basel II, banks in the region have increasingly been required to hold more regulatory capital in relation to market risk, which should help increase resilience to adverse market developments. Debt and equity securities currently represent a significant share of bank assets in the region, with the shares in Indonesia and the Philippines, for example, reaching about one third of total bank assets **(Table 5)**. Holdings of official debt securities generally imply low levels of credit risk, but these securities are still subject to market risk, as are private debt and equity securities.

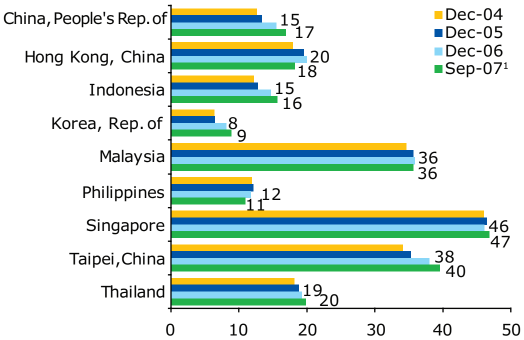
Aware of these risks, supervisory and regulatory bodies in the region have been increasingly using stress tests to assess the robustness of banking systems to worsening market conditions and to determine appropriate cushions. Both secured and unsecured household lending are becoming increasingly important to bank activities in the region **(Tables 6a, 6b, 6c)**. Household indebtedness in relation to GDP is over 40% in several economies, but remains low in Indonesia and the Philippines. Generally, household indebtedness has not risen to the levels that would warrant concern. However, given recent rapid growth, the lack of long-established credit registries in several countries and, in some cases, a lack of information about the distribution of credit across households, the situation needs close monitoring. Real estate loans (as classified by national authorities) account for an increasing share of overall financial sector lending in several

Table 5: **Securities Investment to Total Bank Assets of Commercial Banks** (%)

	2003	2004	2005	2006	2007[1]
Hong Kong, China	19.0	19.2	19.6	20.2	17.3
Indonesia	19.2	20.2	18.0	24.8	29.6
Korea, Rep. of	21.3	20.8	22.1	20.2	20.2
Malaysia	14.1	10.6	9.6	9.3	13.2
Philippines	28.6	31.6	32.0	30.0	35.9
Singapore	17.7	17.1	16.5	15.9	16.8
Taipei,China	15.2	14.2	12.1	12.0	11.5
Thailand	17.8	16.0	16.0	15.8	16.4

… = not available.
Note: For PRC and Indonesia, claims rather than securities data are used.
[1] Data for Hong Kong, China; Singapore; Malaysia; and Taipei,China as of Sep 2007; Indonesia and Thailand data are as of Aug 2007; Philippines as of Jul 2007; and Republic of Korea as of Jun 2007.
Sources: CEIC, Hong Kong Monetary Authority, Bank Indonesia, and Bangko Sentral ng Pilipinas.

Figure 21: **Real Estate Loans** (% of total loans)



Sources: People's Bank of China, Bank Indonesia, Financial Supervisory Service (Korea), Bank Negara Malaysia, Bangko Sentral ng Pilipinas (Philippines), Bank of Thailand, Hong Kong Monetary Authority, and CEIC.
[1] Korea as of Jun 2007.

regional economies **(Figure 21)**. As a result, the financial system's exposure to real estate has increased, as have the possible adverse effects of any correction in real estate prices. National authorities in several countries—including the PRC, Korea, and Viet Nam—have recently taken steps to help cool these markets.

Table 6a: **Household Indebtedness** (% of GDP)

	2002	2003	2004	2005	2006	2007Q3[1]
Indonesia	5.4	6.7	8.2	9.1	8.5	8.3
Hong Kong, China	62.0	60.9	58.2	55.5	52.1	54.0
Korea, Rep. of	32.5	34.9	35.3	37.6	40.8	41.0
Malaysia[2]	47.2	49.2	50.0	52.5	53.1	53.7
Philippines	5.3	4.8	5.2	4.7	4.2	4.2
Singapore[3]	...	...	51.0	49.4	46.4	47.4
Taipei,China	43.2	47.2	53.0	58.3	56.7	56.8
Thailand	...	...	24.5	24.7	23.7	23.5

Table 6b: **Household Non-mortgage Indebtedness** (% of GDP)

	2002	2003	2004	2005	2006	2007Q3[1]
Indonesia	4.2	5.2	6.4	7.1	6.3	6.1
Hong Kong, China	10.3	10.3	10.9	11.0	11.7	13.2
Korea, Rep. of	13.2	13.8	13.6	14.2	15.2	15.5
Malaysia[2]	21.0	21.3	21.9	23.7	24.8	24.9
Philippines	4.5	4.1	4.5	4.1	3.6	3.6
Singapore[3]	...	...	18.0	16.7	15.4	15.2
Taipei,China	16.3	18.4	21.5	23.5	19.5	18.3
Thailand	...	...	8.4	7.6	6.5	6.1

Table 6c: **Household Mortgage Indebtedness** (% of GDP)

	2002	2003	2004	2005	2006	2007Q3[1]
PRC	6.9	8.7	10.6	10.0	10.7	11.6
Indonesia	1.2	1.5	1.8	2.0	2.2	2.2
Hong Kong, China	50.3	49.9	47.3	44.4	40.3	40.8
Korea, Rep. of	19.3	21.1	21.8	23.4	25.6	25.5
Malaysia[2]	26.2	27.8	28.0	28.7	28.4	28.8
Philippines	0.8	0.7	0.7	0.6	0.6	0.6
Singapore[3]	29.3	32.9	33.0	32.7	31.0	32.2
Taipei,China	26.9	28.9	31.5	34.8	37.2	38.5
Thailand	13.9	14.6	16.1	17.1	17.2	17.4

... = not available.
[1] As of 30 Jun 2007 for Indonesia and Korea; 31 Mar 2007 for the Philippines.
[2] 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 and 2007 data from commercial banks and merchant banks only.
[3] 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; People's Bank of China and Hong Kong Monetary Authority.

Market Indicators

While the share prices of listed financial corporations in the region have largely avoided the sharp downward corrections of their US and European counterparts, they have generally underperformed the stock market indexes on which they are listed.

Regional banking systems have avoided the sharp downward adjustments in share prices evident in many of the mature financial markets during the recent turbulence. For the most part, this has reflected relatively low direct exposure to the credit and liquidity problems in the US subprime market, along with less concern on the part of investors about the possibility of unreported off-balance sheet losses. To date, several economies in the region—including PRC; Hong Kong, China; Korea; Singapore; and Taipei,China—have reported exposure to the US subprime market, but these have generally been very small, and provisioning charges have had only a limited impact on profitability. A continued benign outcome is not necessarily guaranteed, however, in the event that international financial turbulence resumes and there is a more general re-pricing of credit risk.

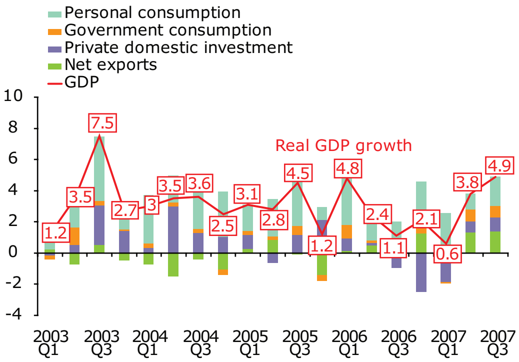
Economic Outlook for 2008, Risks, and Policy Issues

External Economic Environment

The moderation in economic growth among the world's major industrial economies that started this year is likely to continue in 2008.

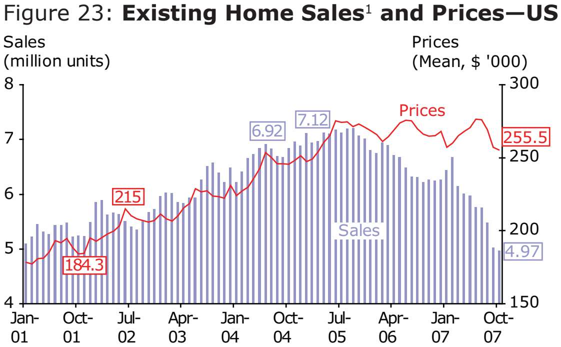
Led by a slowdown in the US economy, economic growth in the Organisation for Economic Co-operation and Development (OECD) is projected to moderate further to 2.3% in 2008, following estimated growth of 2.7% in 2007. But growth deceleration in the non-US OECD economies is expected to remain reasonably modest in 2007–08, with domestic demand in the euro zone and Japan making a gradual recovery. And while financial turbulence in recent months has yet to have any major impact on the real

Figure 22: **Contributions to Growth—US** (seasonally adjusted, annualized, q-o-q, % change)



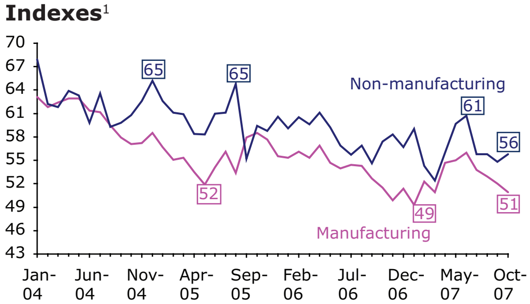
Source: US Bureau of Economic Analysis.

Figure 23: **Existing Home Sales[1] and Prices—US**



[1] Seasonally adjusted; annualized.
Source: CEIC.

Figure 24: **US Business Activity Survey Indexes[1]**



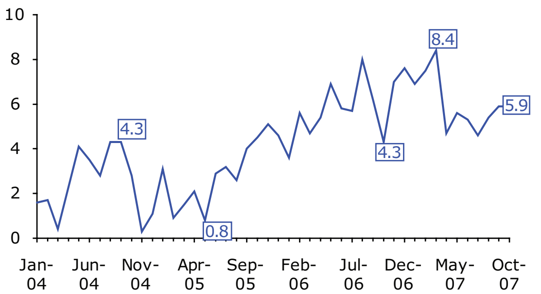
[1] Data survey from the Institute for Supply Management. The indexes are a summary measure showing the prevailing direction and scope of change. An index above 50% indicates that the manufacturing or non-manufacturing economy is generally expanding; below 50% indicates that it is generally declining.
Source: Bloomberg.

economy, stock markets around the world continue to show significant volatility. Tighter credit conditions persist in some segments of money and lending markets, and more significant economic repercussions cannot be ruled out.

US economic growth—down from 2.9% last year to a likely 2.2% this year—is expected to slow further in 2008, driven by the housing market correction and related financial market volatility.

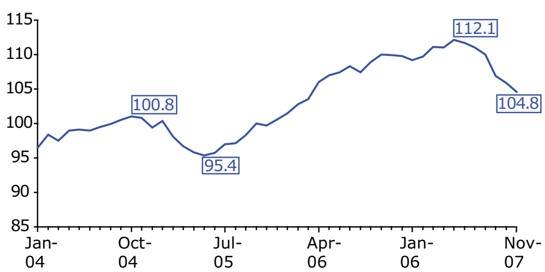
Third-quarter US GDP growth came in strong at 4.9%, unexpectedly accelerating over the second quarter's 3.8% (quarter-on-quarter, seasonally adjusted annualized rate) **(Figure 22)**. Although consumers will likely feel the downdraft from the subprime turmoil in the months ahead, recent consumption and employment data show much resilience. Relatively robust consumer spending is supported by a healthy job market. In August through October, non-farm payrolls were up an average of nearly 120,000. Average hourly earnings are also edging up and an increase in real disposable personal income has supported consumer spending. But the persistent housing slump poses a significant threat to growth. Home sales are still falling and, with the glut of home supply, house prices are expected to drop further **(Figure 23)**. The effect on construction from the housing market correction is also likely to continue to constrain growth into 2008. Meanwhile, the housing market downturn has spilled over into the manufacturing and service industries. Retail sales have slowed in recent months, hit by a sharp decline in consumer confidence. Recent surveys of business activity from the Institute for Supply Management also show a loss of momentum amid sluggish new orders and rising inventories **(Figure 24)**. In response to the downside risks to economic growth, the US Federal Reserve (Fed) cut its official rate again on 11 December by 25 basis points (bp), adding to the 31 October 25bp cut and the 50bp cut on 18 September. While slowing economic activity has helped keep price pressures at bay, resurgent global oil and commodity prices are reigniting inflation concerns. Headline inflation drifted higher to 3.5% (y-o-y) in October, from the first-half average of 2.5%, although core inflation remains stable within the Fed's comfort zone. The recent decline in the US dollar is also raising concerns, although it is helping improve export performance. The US current account deficit is persistently large, but a weaker US dollar will allow for another moderate improvement in the trade balance in 2008.

Figure 25: **German Industrial Production**
(y-o-y, seasonally adjusted)



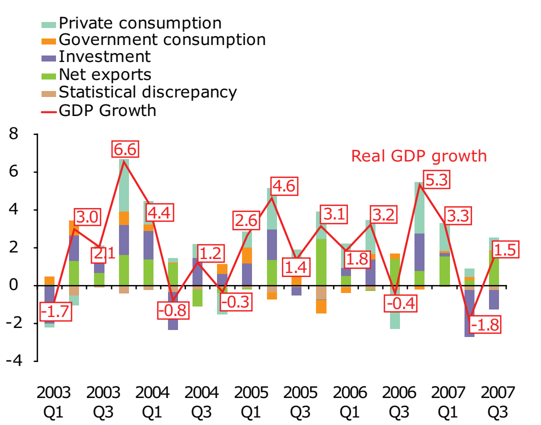
Source: Bloomberg.

Figure 26: **Economic Sentiment Indicator[1] —euro zone**



[1]The economic sentiment indicator is a composite index of business and consumer confidence indicators based on surveys of overall economic assessment and expectations in the euro zone.
Source: Bloomberg.

Figure 27: **Contributions to Growth—Japan**
(seasonally adjusted, annualized, q-o-q, % change)



Source: Cabinet Office, Government of Japan.

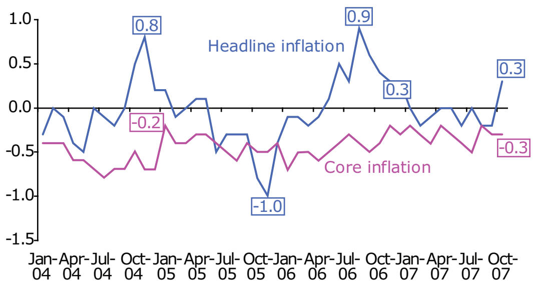
Growth momentum in the euro zone is likely to slow from an estimated 2.6% this year to 2.1% in 2008 amid heightened financial volatility and a substantial appreciation of the euro.

In 2007, the euro zone economy held firm on the back of robust investment and German industrial strength **(Figure 25)**. However, that pace is unlikely to continue as a slowing US economy and a stronger euro start to crimp export growth and tighter credit damps investment. Euro zone financial markets were visibly shaken by the US subprime turmoil. Indeed, several European banks with direct exposure to US subprime mortgages and related mortgage derivatives were caught in the meltdown. Notably, IKB Deutsche Industriebank reported large losses and BNP Paribas made headlines by suspending withdrawals from $2.2 billion worth of funds invested in asset-backed securities. Worries about the financial turbulence in turn undermined consumer and investor sentiment **(Figure 26)**. A strong euro—which surged to record highs against the US dollar—and the recent rise in money-market interest rates above the European Central Bank (ECB) reference rate suggest that monetary conditions are *de facto* tightening, which might allow the ECB to relax its tightening bias for the time being. Nonetheless, inflationary pressures are rising, with euro zone inflation picking up to 3.0% in November due to rising energy and food prices. Tightened production capacity and labor market conditions are also translating into higher prices and wages. On a brighter note, external performance so far exhibits relative buoyancy despite the strong euro. Remarkable resilience in emerging market economies coupled with their currency strength against the US dollar's slide has helped sustain export growth, especially in Germany. The euro zone current account is expected to be in balance in 2008.

In Japan, GDP likely grew 1.9% this year but the momentum has weakened visibly, with GDP growth projected to slow to 1.7% in 2008.

Third-quarter growth rebounded to an annualized 1.5% from a 1.8% decline in the second quarter on strong exports and a pickup in investment **(Figure 27)**. But a slowing US economy and recent strengthening in the yen cast a shadow over export-driven growth next year. A recovery in private consumption also still lags, reflecting sluggish growth in household income despite a gradual tightening in the labor market. However, the investment outlook

Figure 28: **Inflation—Japan** (y-o-y)



Source: OREI staff calculations based on CEIC data.

remains generally positive given healthy corporate profits, tight capacity levels, and still benign funding conditions. But concern is rife that the recent financial turmoil may depress consumer and investor sentiment further, particularly if the US economy slows more significantly. Headline inflation has again been below zero for most of the year, while core inflation—which excludes food and energy prices—has been further dipping into the negative **(Figure 28)**. The Bank of Japan has kept rates steady since February, reflecting a more cautious stance in light of softer economic activity and the recent financial market volatility.

Continued strong growth in most emerging market economies is likely to partially compensate for the easing demand in developed countries; yet growth in world trade volume is projected to slow to 7.6%, after growing about 9% this year.

World trade volume growth eased in 2007 as demand from major industrial countries slackened. But brisk demand elsewhere, particularly in the developing world, is helping sustain relatively healthy momentum. After some weakness around midyear, industrial production in key industrial countries is slowly recovering, but not to previous levels. And while unable to compensate fully for the moderation in demand from OECD economies, healthy momentum in manufacturing output among developing countries is expected to provide support for continued robust world trade in 2008, albeit at a moderated pace. In emerging East Asia, for example, industrial production grew more than 13% in the second quarter of 2007.[2] The PRC leads the group, with industrial production up 18.1%. But solid gains have been achieved across the region.

Another factor in expectations for more moderate but still healthy world trade growth is the recovery in the global information technology (IT) industry. Early signs indicate that global demand for IT products—a major source of export earnings for many emerging East Asian economies—is likely to rebound in 2008. There was a cyclical IT downturn through most of 2007, with weakening equipment investment in the US early in the year, falling chip prices, and sluggish inventory adjustments. However, it now appears that a recovery may be underway, which may help the region's industrial production and trade further into 2008. The deceleration in new orders is slowing and the semiconductor

[2] Excluding Brunei Darussalam, Cambodia, Lao PDR, and Viet Nam.

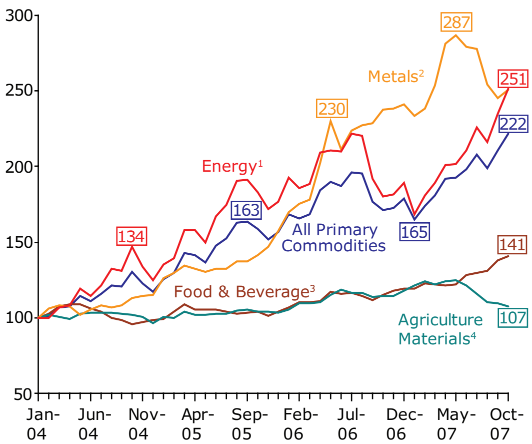
Table 7: **Semiconductor Shipments, Bookings, and Book-to-Bill Ratio**

Date	Shipments		Bookings		Book-To-Bill		
	y-o-y, %	m-o-m, %	y-o-y, %	m-o-m, %	Value	y-o-y, %	m-o-m, %
31-Jan-07	14.98	-2.31	17.94	-3.43	1.00	3.09	-0.99
28-Feb-07	10.89	-1.73	8.11	-3.30	0.98	-2.97	-2.00
31-Mar-07	7.30	0.94	2.48	1.54	0.99	-3.88	1.02
30-Apr-07	10.64	11.02	-2.30	10.42	0.98	-11.71	-1.01
31-May-07	14.98	4.73	1.41	4.75	0.98	-11.71	0.00
30-Jun-07	13.53	5.86	-9.80	-2.09	0.91	-20.18	-7.14
31-Jul-07	2.92	-4.65	-18.93	-12.52	0.83	-21.70	-8.79
31-Aug-07	-3.47	-0.21	-20.73	-2.50	0.82	-17.17	-1.20
30-Sep-07	-6.90	-7.42	-24.66	-9.93	0.79	-19.39	-3.66
31-Oct-07	-4.79	-4.45	-16.14	-0.28	0.83	-11.70	5.06

Source: OREI staff calculations based on Bloomberg data.

book-to-bill ratio, which slid to 0.79 in September, is also heading upward **(Table 7)**.

Figure 29: **Primary Commodity Price Indexes**
(Jan 2004=100)

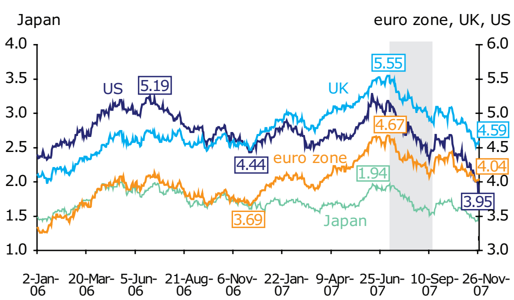


[1] Crude oil, natural gas, coal.
[2] Copper, aluminum, iron ore, tin, nickel, zinc, lead, uranium.
[3] Cereal, vegetable oils, meat, seafood, sugar, bananas, oranges, coffee, tea, cocoa.
[4] Timber, cotton, wool, rubber, hides.
Source: OREI staff calculations based on data from the *IMF Primary Commodity Prices*, International Monetary Fund.

High energy and commodity prices are expected to continue into 2008 due to a combination of strong demand—especially from emerging markets—and consistent worries over supply conditions.

In November, crude oil prices set a new record high near $100 a barrel. Global demand is strong despite softening growth, while supply conditions remain precarious. Persistent geopolitical tensions and supply concerns coupled with limited spare capacity give rise to significant price volatility. Food prices and some metals prices also continued to gain significantly in 2007 **(Figure 29)**. Although a moderation in the upward trend is expected, it is likely that energy and several commodity prices will remain at historically high levels into 2008.

Figure 30: **10-year Government Bond Yields**
(% per annum)

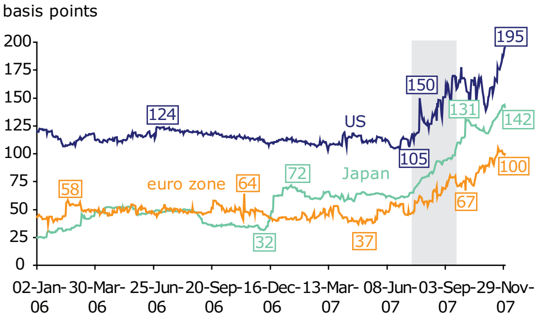


Note: The shaded area indicates the period 15 Jul to 20 Sept 2007.
Source: Bloomberg.

Recent shifts in monetary stances of major central banks suggest global monetary conditions may remain accommodative a bit longer.

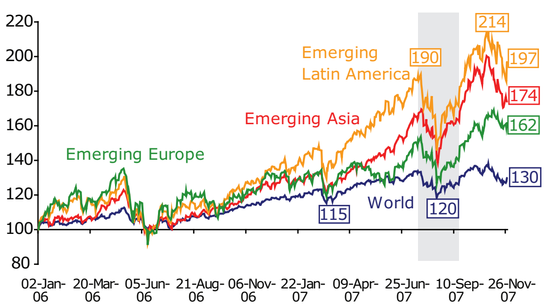
In response to a *de facto* tightening in major money market conditions during the subprime turmoil, the US Federal Reserve decisively lowered its overnight rate, while other major central banks have paused in their tightening cycles. Flight to quality and liquidity during the August 2007 market sell-off pushed yields on 10-year US, United Kingdom (UK), and euro government bonds lower **(Figure 30)**. And a general re-pricing of credit risks has widened credit spreads for corporate bonds **(Figure 31)**. Emerging market sovereign bond spreads also widened as

Figure 31: **Corporate Bond Spreads**[1]



Note: The shaded area indicates the period 15 Jul to 20 Sep 2007.
[1] Refers to the difference between yields of 5-year bonds issued by BBB-rated finance companies and yields of sovereign benchmark bonds of the same tenor.
Source: Bloomberg.

Figure 32: **MSCI Indexes** (2 Jan 2006=100)



Note: Shaded area indicates the period 15 Jul to 20 Sep 2007.
Source: Morgan Stanley Capital International (MSCI) Barra.

investors fled risky assets. There is now concern that tighter global credit may affect overall economic activity by reducing loans to businesses and households. There is also evidence that lending standards are already becoming more strict in some mature credit markets.

Despite significant injections of liquidity into the financial system by the world's major central banks, financial volatility in global markets remains high, with heightened investor sensitivity to risk likely to persist into 2008.

Stock markets rallied after the Fed's rate cuts in September and October. The world Morgan Stanley Capital International (MSCI) Barra Index is now higher than before the market correction in August and September **(Figure 32)**.[3] But global equity markets remain sensitive to new data releases on the US economy, reflecting heightened risk perception. The re-pricing of credit risks has also been orderly in most credit markets. But some segments of the money markets are still strained by a lack of liquidity and increased counterparty risk. Despite generally tighter credit and heightened financial volatility, however, external funding for emerging East Asian economies remains adequate.

In sum, the external environment for emerging East Asian economies is expected to weaken somewhat in 2008, as economic growth in industrial countries moderates, oil and commodity prices remain elevated, and global financial markets continue to exhibit heightened volatility.

Although recent financial instability has had only limited impact on the global economy, further significant spillover cannot be ruled out. World GDP growth is expected to slow, although with the global IT market slowly recovering from its recent slump, external demand for regional products may remain generally supportive next year. And inflationary pressures are resurfacing as global oil and commodity prices surge, complicating monetary decisions into 2008. After a brief retreat in August and September, capital flows to emerging market economies have resumed, again adding to pressure on asset prices and currencies in these markets. Amid increased volatility in price and volume, financial conditions will warrant close monitoring.

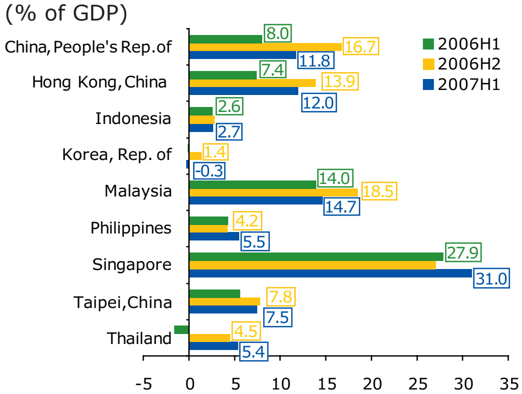
[3] The MSCI Barra indexes are widely used as performance benchmarks by asset managers. The MSCI All Country World Index covers 23 developed and 26 emerging equity markets. Sources: Wall Street Journal and MSCI Barra.

Regional Economic Outlook for 2008

With the external environment weakening somewhat—and the PRC, the region's largest economy, expected to soften next year—aggregate GDP growth in emerging East Asia is forecast to slow to 8.0% in 2008 from a likely 8.5% this year.

While much of the region will be affected by the expected slowdown in economic expansion in industrial countries, there remain several mitigating factors that will allow emerging East Asian economies to sustain lower but still robust growth **(Table 8)**. Despite attempts to cool its economy, the PRC is likely to continue its double-digit expansion. At the same time, growth in the rest of the region has become more broad-based, with strong gains in some larger economies—including Indonesia and the Philippines—and small economies continuing to catch up. GDP growth in the NIEs is expected to ease only modestly in 2008, while GDP growth in ASEAN-4 is likely to be, if anything, higher. Also, despite softer external demand and the cyclical downswing in the global IT industry, exports performed strongly and most economies in the region posted solid current account surpluses in 2007 **(Figure 33)**. As robust growth persists in the region and the global IT industry is expected to recover over the course of 2008, export growth is expected to recover. But rapid economic growth and strengthening domestic demand are likely to compress current account surpluses across the region.

Figure 33: **Current Account Balance**
(% of GDP)



Source: *International Financial Statistics*, International Monetary Fund.

The PRC economy is expected to continue double-digit growth in 2008, but the pace may soften—off its current peak—if measures to cool the economy begin to take hold.

Growth in the first 3 quarters hit a record 11.5%, and is projected to sustain double-digit levels for the remainder of this year and next, although the pace is expected to moderate to 10.5% in 2008. A series of tightening measures has been introduced to curb rapid investment growth and asset-price inflation since mid-2006, but the full effect has yet to be seen. Strong exports continue to bolster investment, especially in manufacturing and mining. Increasingly, private consumption growth is contributing to economic strength. Rising incomes and improvements to the social security system underpin rapid consumption growth. A planned increase in fiscal spending should also support more

Table 8: **Annual GDP Growth Rates** (%)

	Average									ADB Forecasts	
	1996–2006	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Emerging East Asia [1,2]	**6.5**	**6.7**	**7.7**	**4.6**	**7.0**	**6.9**	**8.0**	**7.8**	**8.4**	**8.5**	**8.0**
ASEAN [1,2]	**4.2**	**4.3**	**6.7**	**1.9**	**4.9**	**5.4**	**6.4**	**5.6**	**6.0**	**6.3**	**6.1**
Brunei Darussalam	2.0	3.1	2.9	2.7	3.9	2.9	0.5	0.4	5.1	1.9	2.3
Cambodia	8.6	12.6	8.4	7.7	6.9	8.5	10.0	13.5	10.8	9.2	8.0
Indonesia[3]	3.1	0.8	4.9	3.6	4.5	4.8	5.0	5.7	5.5	6.2	6.4
Lao PDR	6.3	7.3	5.8	5.8	5.9	5.8	6.9	7.2	7.3	6.8	7.9
Malaysia[4]	4.9	6.1	8.9	0.5	5.4	5.8	6.8	5.0	5.9	5.9	5.9
Myanmar[5]	10.7	10.9	13.7	11.3	12.0	13.8	13.6	13.2	. . .	. . .	. . .
Philippines[6]	4.3	3.4	6.0	1.8	4.4	4.9	6.4	4.9	5.4	7.0	6.4
Thailand	3.1	4.4	4.8	2.2	5.3	7.1	6.3	4.5	5.0	4.3	4.8
Viet Nam	7.3	4.8	6.8	6.9	7.1	7.3	7.8	8.4	8.2	8.3	8.5
Newly Industrialized Economies[1]	**4.5**	**6.9**	**7.7**	**1.0**	**5.3**	**3.2**	**6.0**	**4.8**	**5.5**	**5.3**	**5.1**
Hong Kong, China	3.8	2.6	8.0	0.5	1.8	3.0	8.5	7.1	6.8	6.1	5.4
Korea, Rep. of	4.6	9.5	8.5	3.8	7.0	3.1	4.7	4.2	5.0	4.8	5.0
Singapore	5.5	7.2	10.1	-2.4	4.2	3.1	8.8	6.6	7.9	8.1	6.3
Taipei,China	4.6	5.7	5.8	-2.2	4.6	3.5	6.2	4.2	4.9	5.0	4.8
China, People's Rep. of	9.3	7.6	8.4	8.3	9.1	10.0	10.1	10.4	11.1	11.4	10.5
Japan	1.2	-0.1	2.9	0.2	0.3	1.4	2.7	1.9	2.2	1.9	1.7
US	3.2	4.5	3.7	0.8	1.6	2.5	3.6	3.1	2.9	2.2	1.9
Euro zone	2.1	3.0	3.8	1.9	0.9	0.8	2.0	1.5	2.8	2.6	2.1

. . . = not available
[1] Aggregates are weighted according to gross national income levels (atlas method, current US$) from *World Development Indicators* (World Bank).
[2] Excludes Brunei Darussalam and Myanmar for all years as weights are unavailable.
[3] GDP growth rates from 1999–2000 are based on 1993 prices, while growth rates from 2001 onward are based on 2000 prices.
[4] Growth rates from 1999–2000 are based on 1987 prices, while growth rates from 2001 onward are based on 2000 prices.
[5] For fiscal year April–March.
[6] Figures for 2004–2006 are not linked to the GDP figures 2003 backwards due to National Statistics Office revisions of sectoral estimates.
Sources: ADB; government estimates (Brunei Darussalam); Eurostat website (euro zone) Economic and Social Research Institute (Japan); Bureau of Economic Analysis (US).

broad-based expansion in 2008, with more public investment slated for education, health care, and rural development.

GDP growth in the NIEs is forecast to average 5.1% next year, just slightly below an estimated 5.3% in 2007.

In Korea, growth is gathering pace as strong export earnings and corporate sector balance sheets support reasonably healthy investment growth. In addition, a steady tightening in the labor market is driving a gradual recovery in consumption. In Singapore, despite buoyant industrial activity—driven by the manufacturing and construction sectors—moderation is expected due to a slowing in financial services. The outlook for Hong Kong, China, which is heavily influenced by the PRC, remains solid. However, the rapidly closing output gap and more subdued financial market conditions imply some easing of growth in 2008.

The four largest ASEAN economies—currently in the upswing phase of their business cycles—are forecast to maintain strong growth in 2008, with Indonesia and Thailand accelerating, Malaysia maintaining this year's pace, and the Philippines slowing somewhat from a strong 2007.

Strong domestic demand and resilient exports are likely to keep the four middle-income ASEAN countries in good stead. In Indonesia, GDP growth continues to accelerate, after exceeding 6% in 2007 for the first time since the 1997/98 Asian financial crisis. Buoyant consumption and strong investment on the back of easier monetary policy underpin the robust outlook. In Malaysia, improving electronics exports will support relatively strong growth while the impact of fiscal stimulus on domestic demand gradually fades. In the Philippines, GDP growth will remain high at about 6.4% in 2008—although off the post-crisis peak reached this year—on strong gains in net exports, private consumption, and government spending. Thailand's economy continues to struggle amid ongoing political and policy uncertainties. But there is substantial scope for expansionary policies—which can boost GDP growth in 2008—once the December national elections have reduced political uncertainty.

The smaller ASEAN economies—Cambodia, Lao People's Democratic Republic (Lao PDR), and Viet Nam—continue to post impressive economic growth, although GDP in Cambodia is expected to slow a bit in 2008. The pace of economic growth in 2008 is expected to quicken further in Viet Nam, driven by vigorous industrial activity and strong investment following its January 2007 accession to the World Trade Organization (WTO). Cambodia is working to consolidate output performance by promoting a more balanced expansion among key industries—including agriculture, construction, garments, and tourism. But GDP growth remains narrowly based on garments and tourism. In the short term, increasingly uncertain prospect for garments is hampering the economy. The Lao PDR is benefiting from lofty global energy and commodity prices, as strong investment and growth in mining and hydropower sectors support the expansion. GDP is forecast to grow significantly at 7.9% in 2008 from 6.8% in 2007.

Even as growth slows somewhat, inflation is generally picking up in many emerging East Asian economies, largely due to resurgent oil and other commodity prices.

In the PRC, inflation was back up to 6.5% in October 2007, with particularly acute inflation risk riding the back of rapid demand growth and wage increases **(see Figure 11)**. Planned pricing reforms of state-controlled sectors—an increase in the prices of public utilities, including power and water, for example—if implemented, may add to existing inflationary pressures next year. In general, for the rest of the region, robust growth, relatively tight labor markets, and higher energy prices are expected to generally increase inflationary pressures in 2008.

Current accounts are expected to continue to show large surpluses in the PRC; Hong Kong, China; Malaysia; and Singapore, but will likely be close to balance in Indonesia, Korea, and Thailand. After a brief withdrawal of foreign capital during the recent financial turbulence, capital inflows to the region have resumed the upward trend with a vengeance. Persistent current account surpluses and net capital inflows will continue to place appreciation pressures on regional currencies in 2008. And as authorities intervene in foreign exchange markets to curb the pace, foreign exchange reserves will rise across the region **(Table 9)**. With heightened volatility threatening financial stability, authorities should closely monitor financial market developments and remain vigilant for any mis-pricing of risk.

Risks to the Outlook

The region's economic outlook is subject to greater downside risks now than just a few months ago—including the possibility of a US recession, further tightening of global credit, an abrupt adjustment in exchange rates, and a continued rise in oil and commodity prices.

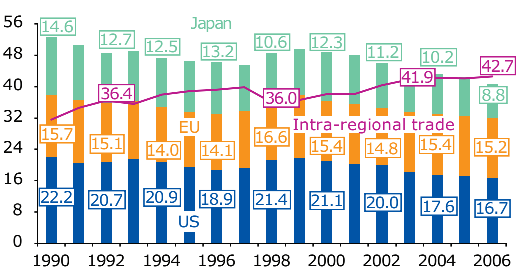
The possibility of a US recession remains a risk given underlying housing market weakness and growing concern about a spillover

Table 9: **Foreign Exchange Reserves** (excluding gold)

Country/Region	$ billion					% change (y-o-y)			
	Dec-05	Dec-06	Mar-07	Jun-07	Sep-07[1]	Dec-05	Dec-06	Jun-07	Sep-07[1]
Brunei Darussalam	0.5	0.5	0.5	0.5	0.5	-2.2	5.9	2.6	3.1
Cambodia	1.0	1.2	1.2	1.4	1.4	1.0	21.4	36.4	32.4
China, People's Rep. of	821.5	1,068.5	1,204.0	1,334.6	1,435.6	33.7	30.1	41.4	44.9
Hong Kong, China	124.2	133.2	135.3	136.3	140.8	0.6	7.2	7.6	8.1
Indonesia	33.1	41.1	45.7	49.4	51.2	-5.2	24.0	28.4	25.3
Korea, Rep. of	210.3	238.9	243.8	250.6	257.2	5.7	13.6	11.1	12.7
Lao PDR	0.2	0.3	0.4	0.5	0.5	4.9	39.5	80.8	63.9
Malaysia	69.9	82.1	88.2	98.1	97.9	6.0	17.6	25.0	23.6
Myanmar	0.8	1.2	1.7	1.8	1.8	14.7	60.3	87.8	62.0
Philippines	15.9	20.0	21.7	23.5	27.9	21.4	25.7	28.7	47.9
Singapore	116.2	136.3	137.7	144.1	152.4	3.2	17.3	12.3	18.2
Taipei,China	253.3	266.1	267.5	266.1	262.9	4.8	5.1	2.2	0.5
Thailand	50.7	65.3	69.1	71.3	78.7	4.2	28.8	26.3	31.2
Viet Nam	9.1	13.4	18.3	20.3	20.3	28.5	47.9	79.5	70.2
Emerging East Asia	1,706.6	2,068.1	2,235.3	2,398.2	2,529.1	16.6	21.2	26.9	29.5

[1] If data is unavailable for reference month, data refers to most recent month where data is available.
Source: *International Financial Statistics,* International Monetary Fund.

Figure 34: **Trade links** (share of G3 in emerging East Asian[1] exports)



[1] Brunei Darussalam; Cambodia; People's Republic of China; Hong Kong, China; Indonesia; Republic of Korea; Lao PDR; Malaysia; Myanmar; Philippines; Singapore; Thailand; Taipei,China; and Viet Nam.
Source: *Direction of Trade Statistics*, International Monetary Fund.

onto consumer spending and business activity in general. The persistent housing slump already dragged down private residential investment for the seventh consecutive quarter during July–September 2007. Business and investment activity are also slowing as the outlook becomes cloudier and financial market uncertainty dampens business confidence. Consumers may also come under significant pressure if deteriorating business sentiment affects the labor market. Consumer confidence dropped for a third consecutive month in October, to its lowest level in a year, as housing market woes and widening credit concerns compounded worries about the economy and future job prospects. Emerging East Asia's trade links with G3 economies[4] remain substantial, although in gradual decline **(Figure 34)**. If the US economy slows sharply, its effect on global trade would be significant—it remains an important source of demand for many East Asian exporters, and for the PRC in particular (21% of total exports in 2006, and higher if factoring in third-party economies' re-exports). The US subprime turmoil could also spawn a reassessment of housing prices globally. Other countries with significant house-price inflation in the past few years, such as some European countries—particularly the UK—and Australia, also remain vulnerable to a house-price bust. If the US economy enters a recession and the global economy substantially slows

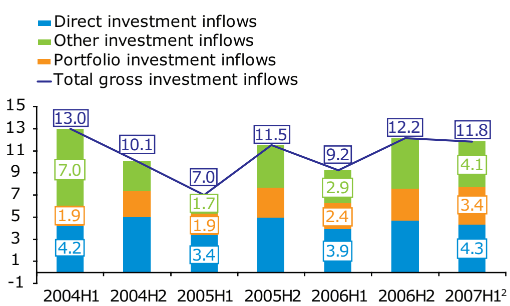
[4] G3 includes the euro zone, Japan, and US.

in tandem, the impact on emerging East Asian economies will be potent.

Even if the US avoids a recession, global financial markets seem to be entering a period of increased volatility, and the resulting market adjustments could instigate further bouts of turbulence. Some market adjustments that correct mis-pricing and reassess risk exposures of financial institutions should be welcome—as the extended period of economic and financial stability instilled a sense of complacency and deteriorated market discipline. But initially benign corrections could rapidly turn disruptive. Credit risk re-pricing and retrenchment from high-risk assets—taken in the context of the complexity and illiquidity embedded in new investment vehicles—have caused major clogging in money/interbank lending markets. Continued strains in money markets—and in some credit markets—will likely tighten general credit conditions by increasing the cost and reducing the amount of funding. In major industrial countries, such as the US and the euro zone, lending standards have been tightened and there are signs that the overall credit supply to businesses and households is being reduced. A full blown credit crunch could slow GDP growth substantially in G3 economies and have major implications for external demand for emerging East Asian products.

Sudden swings in capital flows and abrupt adjustments in exchange rates due to the large global payments imbalances and a potential reversal in investors' risk appetite is another concern for the region's economies. At the height of the recent financial turbulence, global investors retreated from risky assets, including those in emerging East Asia. Most regional currencies have already appreciated substantially **(see Figures 16a, 16b)**, but they remain vulnerable to greater volatility in terms of future directions and magnitude of capital flows. Perceived exchange-rate misalignments in emerging East Asian economies continue to draw capital inflows, particularly in the form of short-term portfolio investments, which add appreciation pressure and fuel asset-price inflation in many of these economies. In particular, some countries in the region—including Indonesia, Korea, and Philippines—have seen rapid increases in capital inflows for portfolio investments over the past few years coupled with higher rates of credit growth. Foreign portfolio and other investments now exceed direct investments in emerging East Asia **(Figure 35)** and this pattern of increasing short-term capital flows makes the region vulnerable to financial volatility and an unexpected reversal

Figure 35: **Emerging East Asia**[1] **Financial Accounts** (% of GDP)

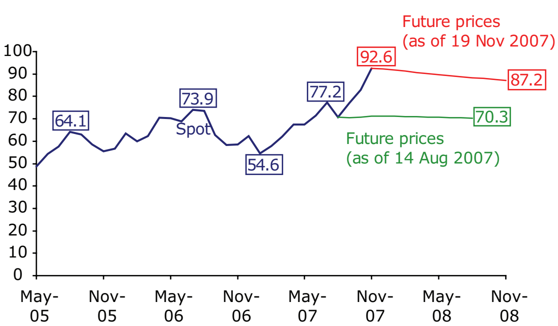


[1] Includes PRC, ASEAN-4, and NIEs, Lao PDR, Myanmar, and Viet Nam.
[2] 2007H1 figures do not include Malaysia (data unavailable).
Sources: *International Financial Statistics*, International Monetary Fund and country sources.

of global financial flows. Recent swings in global financial flows and heightened volatility can be exacerbated by vulnerabilities stemming from the persistently large global payments imbalances. Some signs of moderation have emerged. The US current account deficit this year is expected at 5.6% of GDP, down sharply from 6.2% last year.[5] Still, resulting global imbalances remain extremely large. To the extent that the ongoing correction in global financial markets may reflect the dynamics of underlying market forces to reduce the scale of global imbalances—which entails a US dollar depreciation, US economic slowdown, and reduction of US dollar asset returns—even a gradual and thus protracted unwinding process would have significant impact on emerging East Asian markets. At the same time, slower US growth could revive protectionist sentiment. Taken together, a disorderly adjustment in global payments imbalances coupled with a sharp contraction in US aggregate demand and a free fall of the US dollar, although very unlikely, cannot be ruled out. This would have a potentially serious impact on the region.

Fresh bouts of inflationary pressures due to sustained increases in food and energy prices pose a threat to maintaining macroeconomic stability in some emerging East Asian economies, with the risks more pronounced in some than others. In particular, in the PRC and Hong Kong, China, inflation is being fuelled by rising food prices, rapidly growing domestic demand, tightening labor markets, and strong foreign exchange inflows—exacerbated by rigid exchange rate regimes. In the rest of the region, although still manageable, inflationary pressures are quickly resurfacing as well due to narrowing output gaps and rising input prices. The sustained rise in global oil prices is a major concern **(Figure 36)**, as markets remain tight and, with little spare capacity, any supply disruption or heightened geopolitical concern could lead to even higher prices. Given talk of recession among the G3 economies and current inflationary pressures in the region, another major oil price shock could contribute to a period of stagflation. If inflation—especially core inflation—heads higher, monetary authorities in the region will have less flexibility to deal with potentially slower economic activity arising from weaker external demand.

Figure 36: **Brent Spot and Future Prices**[1]
($ per barrel)



[1] Historical prices are monthly averages of daily spot prices.
Source: Bloomberg.

[5] With the weakening in the US dollar, exports picked up strongly by 16.2% (q-o-q, seasonally adjusted, annualized rate) in the third quarter of 2007—from 7.5% in the previous quarter—while import growth remains moderate due to a slowing economy. If export and import growth continues at the current pace, all else equal, the US current account deficit will stabilize at about 3% of GDP by 2011.

Policy Issues

Slower economic growth coupled with a buildup of inflationary pressures—despite appreciating currencies—poses major challenges in macroeconomic management for emerging East Asian economies.

The region's resilience to recent financial turmoil was in no small part due to strong market confidence derived from a robust growth outlook, sound macroeconomic indicators, current account surpluses, and healthy external positions. The remarkable improvements made in the decade since the Asian financial crisis reflect strong macroeconomic prudence in terms of continued fiscal consolidation and measured inflation rates. However, given the uncertain global outlook, heightened financial volatility, and sustained high oil and commodity prices, macroeconomic management remains a major challenge. Policy dilemmas may be particularly acute in countries where rapid credit growth and asset-price inflation—associated with strong foreign capital inflows—limit the scope for monetary responses to external adversity **(Box 1)**.

Given the specific domestic conditions among the region's economies, monetary authorities will need great care in designing policy responses to the changing external environment. Slowing external demand and the uncertain growth outlook—but rising inflationary pressures—raise the risk of policy mistakes in those economies where monetary policy needs to be fine-tuned to meet both growth and inflation objectives. Because the world's major central banks' key policy rates are expected to fall further or level off amid below-potential growth expectations, monetary authorities in the region may feel pressure to keep rates on hold or even lower them in line with the global trend.

However, to the extent that some decoupling of the region's growth outlook from that of the global economy is underway, monetary policies in the region should also decouple. Despite weakening growth in key industrial countries, the region's prospects remain strong, even if slowing somewhat—the PRC, for example, still faces overheating. In countries where domestic demand is strong and inflation is rising—particularly the PRC and Viet Nam—there may be merit in continuing monetary tightening. In much of the region, however, inflation remains largely in check, suggesting room for policy discretion if the downside risks to

Box 1: **Fed Rate Cuts and Policy Dilemmas**

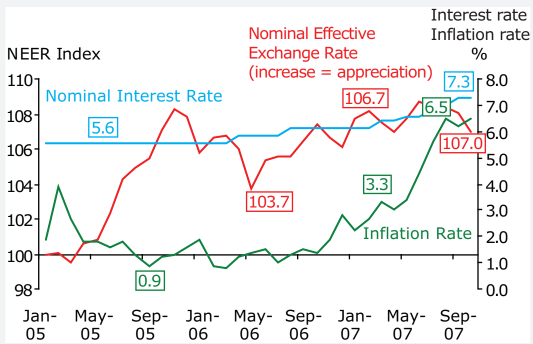
The potential for a stronger-than-expected slowing of the US economy presents policy challenges for authorities throughout emerging East Asia. But for the fast-growing economies of the People's Republic of China (PRC) and Hong Kong, China—which maintain limited flexibility or a hard peg to the US dollar—it creates serious policy dilemmas, amid signs that inflation is becoming problematic and asset prices more frothy.

Rigid exchange rate regimes in both economies create policy dilemmas because US monetary policy has begun easing. A weaker US economy—the destination for about 20% of PRC exports and about 16% of Hong Kong, China exports—and the corresponding US Federal Reserve rate cuts, may prompt authorities to cut interest rates to maintain exchange rate regimes and accelerate policies that could steer demand toward domestic sources. Yet, in both cases, rising asset prices—exacerbated by large inflows of foreign capital—call for policies that instead rein in domestic demand.

The issues are particularly acute in the PRC, where authorities are struggling to conduct policy that will steer an overheating economy to a more sustainable growth path. Macroeconomic stabilization policy is further complicated by growth imbalances across different sectors and provinces, a still-fragile financial system awash in liquidity (largely due to persistently swelling trade surpluses), and a currency subject to strong appreciation pressures. The dilemma arises in part from the fact that policies to boost domestic sectors to balance growth could feed fast-rising inflation **(Figure B1.1)**. A persistent rise in headline inflation could in turn weaken private consumption, instead of shifting the growth balance to domestic sources.

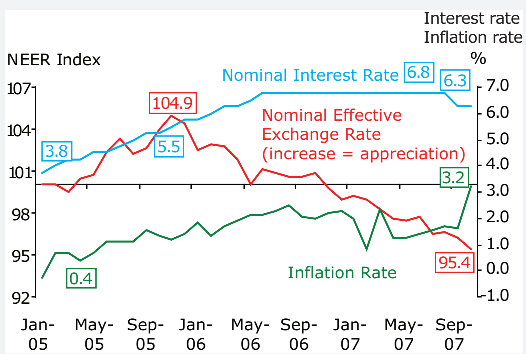
Conversely, a tighter monetary policy also carries risks for the economy.[1] Asset price appreciation has been very rapid in the past few years, with marked increases in price-earnings ratios in local stock indexes. A particular concern is the increasingly large number of household investors playing the stock market, some with borrowed money. Corrections may be sharp and swift, with adverse repercussions for its fragile banking system and the broader economy. More importantly, new hikes in interest rates combined with unabated anticipation of currency appreciation will attract capital flows further, aggravating the liquidity overhang and fueling asset price rises.

Figure B1.1: **Nominal Interest Rate,**[1] **CPI Inflation, and Nominal Effective Exchange Rate** (NEER)[2] **—PRC**



[1] Benchmark 1-year lending rate.
[2] Jan 2005=100.
Sources: Bank for International Settlements, CEIC, and National Bureau of Statistics of China.

Figure B1.2: **Nominal Interest Rate,**[1] **CPI Inflation, and Nominal Effective Exchange Rate** (NEER)[2] **—Hong Kong, China**



[1] Base rate.
[2] Jan 2005=100.
Sources: Bank for International Settlements and Hong Kong Monetary Authority.

Faced with this dilemma, authorities have used direct instruments, including administrative "window and credit policy guidance" controls to rein in the speed of credit growth. Under these, banks may be sanctioned through liquidity penalties or even personnel charges if excessive lending is not curtailed. Given the limited policy options, such targeted measures might be more effective than a monetary tightening, which could have an economy-wide effect. The dilemma now facing policy makers also strengthens the case for greater exchange rate flexibility. A stronger currency should contain the excessive trade surplus, moderate investment in tradable sectors, and mitigate inflation. It would also help tighten monetary and credit conditions without interest rate increases. That said, the government's policy of gradual appreciation continues to blunt the effectiveness of monetary policy and entices capital inflows in anticipation of higher returns from the yuan's revaluations, adding fuel to asset markets.

Likewise in Hong Kong, China, the importance of the US market presents policy challenges because of the hard currency peg. Cuts to the US federal funds rate are matched locally through the Linked Exchange Rate System that pegs the Hong Kong dollar to the US dollar **(Figure B1.2)**. Yet, given the strong economy and recent inflation at 9-year highs, lower interest rates are not called for.

[1] With inflation high, real interest rates are still very low. The 1-year benchmark lending rate, adjusted for inflation of 6.5%, is just 0.79%, which arguably makes for the case that the current monetary policy stance is still expansionary.

Domestic demand gets support from rising incomes, strong employment, the buoyant stock market, renewed business confidence, and a recovery in construction. And in the near term, the domestic economy should be able to shoulder some export weakness. But, the parallel rate cuts built into the peg come with undesirable challenges, particularly in containing inflation, which in October hit 9-year highs at 3.2%. Inflationary pressures are high due to robust domestic demand and sustained high oil and food prices. But with a peg, a weaker US dollar and the Fed's easing policy are readily transmitted to the local currency and interest rates, fueling inflation concerns.

Excess liquidity could also cause a bubble in local stock markets and fuel a real estate boom. The Hang Seng Index has been hitting new record highs, although price-earnings ratios are not yet exorbitant. And the listing of several popular mainland Chinese companies on the local market has also led to a surge in capital inflows. Combined with current account surpluses, these have boosted domestic liquidity and credit growth. Asset prices may rise further as deposit holders switch from lower returns earned on savings into the higher-yielding asset markets. Property prices are rising as well: the domestic property price index in June broke a level last achieved in 1999, and all other segments of the property market have been bullish, reaching or surpassing peaks attained before the 1997/98 Asian crisis. While these are all ingredients for rising inflation and asset bubbles, the lack of short-term counter measures due to the peg raise concerns about sustainability of macroeconomic and price stability.

The lack of monetary policy options means the onus for maintaining economic stability falls on fiscal policy and other structural policies. In particular, if the exchange rate cannot adjust to external shocks, domestic wages and prices will have to. This means that labor and product markets will have to be even more flexible. However, any measures to make them so, mostly structural in nature, can only bear fruit in the medium to long term. In the tradable sector, these economies' competitiveness is commendable, but much room for improvement is left in the domestic sector. In the labor market, an aging population and shortage of skilled labor present longer-term challenges to policymakers.

growth materialize. Nevertheless, inflationary concerns linger in several countries—including Indonesia, Korea, and Philippines—where the output gap is closing on robust growth while rising global oil and commodity prices threaten to push input costs higher. Clearly, there is no "one-size-fits-all" solution for these countries, but the situation requires heightened vigilance and careful monitoring of inflationary developments.

In economies that use greater exchange rate control, increasing currency flexibility could add useful monetary leverage domestically in an environment of heightened external uncertainty **(Box 2)**. Continued large current account surpluses and foreign capital inflows remain destabilizing macroeconomic forces in many parts of the region. Associated with this, rapid credit growth and asset-price inflation generally narrow the scope for monetary easing against a sharp economic slowdown. A currency appreciation can bolster monetary discretion by tightening *de facto* monetary conditions. However, despite increasing currency flexibility over the past few years, many regional economies continue to intervene in foreign exchange markets. These efforts to maintain currency stability are often ineffective beyond the short term, when economic fundamentals continue to put upward pressure on the currency. Ineffective sterilization also contributes to excess liquidity growth and asset-price booms, while fuelling

Box 2: **Measuring Monetary Independence in Emerging East Asia**

In an environment where capital moves freely, simultaneously targeting an exchange rate and maintaining an independent monetary policy is impossible. This is the so called "impossible trinity".[1] Two of these three objectives can be achieved at the same time, but not all three. If a country pegs its currency to another's, the United States (US) dollar, say, it cannot deviate significantly from the 'host' monetary policy. If business cycles are in tandem, then that may create no problems—the US Federal Reserve's policy may be appropriate for the pegging economy. But if cycles diverge, what's good for the US may not be good for the other.

Some countries, especially small, open ones with underdeveloped financial systems, elect to have dollar pegs. They are willing to sacrifice monetary independence in order to promote trade and economic growth by minimizing exchange rate fluctuations. That said, an oft-cited cause of the Asian financial crisis was the *de facto* pegging of the region's currencies to the US dollar. A few years before the crisis, those currencies strengthened alongside the US dollar, leaving exports less competitive and causing rapid deterioration of current accounts. After Thailand moved to float the baht, concern about the situation turned to fear and massive amounts of capital took flight, triggering a chain of events that affected much of the region.

Since then, the lessons of the crisis have led many economies in the region to adopt flexible exchange rates. This likely also allowed more independent monetary policies in the region, as suggested in Kim and Lee (2004)[2] and Kawai (2007).[3]

This box examines empirically whether the economies of emerging East Asia have indeed pursued more independent monetary policies since the financial crisis. In the spirit of Frankel, Schmulker and Serven (2002)[4] and Shambaugh (2004),[5] the following error-correction formulation can be used to examine monetary policy independence:

$$\Delta r_t^{lc} = \sum_{p=1}^{P} \alpha_{1p} \Delta r_{t-p}^{lc} + \sum_{p=0}^{P} \alpha_{2p} \Delta r_{t-p}^{*} - \delta \left[r_{t-1}^{lc} - \alpha_0 - \beta r_{t-1}^{*} \right] + u_t$$

where Δ denotes first difference, for example, $\Delta r_t^{lc} = r_t^{lc} - r_{t-1}^{lc}$;
r^{lc} the local currency interest rate;
r^* the foreign currency interest rate;
u_t the error term, α_{1p} and α_{2p} the coefficients of short-run dynamics of lagged domestic interest rates and foreign interest rate respectively;
δ the speed of adjustment to the long-run relationship; and
β the long-run sensitivity of the domestic interest rate to the foreign interest rate.

The error correction model is commonly used to empirically analyze the dynamic behavior of time-series variables. Intuitively, the equation takes a set of variables—here they are local and foreign currency interest rates—that has a long-run equilibrium relationship, and traces their dynamic behaviors to converge towards the equilibrium condition. Given an open capital account, a country that increases interest rates will attract capital, and this will cause the exchange rate to appreciate. If a central bank wants to fix its currency to a host country's currency, its domestic interest rates will have to adjust accordingly to the host country's interest rate changes. This long-run equilibrium relationship is captured in the equation by the terms in the square bracket, where δ measures how fast local currency interest rates return to equilibrium, and β shows how much local currency interest rates should move in response to the changes in foreign currency interest rates. If a country pegs its exchange rate, its monetary policy should mirror that of the host country in the long-run: β will be close to one, while its speed of adjustment, δ, will be greater than zero. In contrast, when a country adopts a fully floating exchange rate regime, δ will be close to zero and β becomes inconsequential.

Monthly money market rates[6] from January 1990 to July 2007 are obtained for Indonesia; the Republic of Korea; Malaysia; the Philippines; and Thailand, as well as the effective overnight federal funds rate for the US. The pre-crisis sample spans 1990:1 to 1997:5, just before the floating of the Thai baht. The post-crisis sample goes from 1998:10 onwards so as to reduce the effects of unnecessary volatility associated with the crisis.[7]

The results generally confirm that the domestic monetary policies of the regional economies have gained greater independence from the Fed's policy since the crisis. **Figure B2.1** shows that the speed of adjustments (δs) of most countries has visibly declined since the crisis, except for Malaysia, where the result is statistically insignificant for the pre-crisis period. **Figure B2.2** also reports the generally affirmative results in terms of the long-run sensitivity

[1] A formal model for this hypothesis was developed by Robert Mundell and Marcus Fleming in the 1960s.

[2] Kim, C.J., and J.W. Lee, 2004. Exchange Rate Regime and Monetary Independence in the Post-Crisis East Asia: An Application of Regime Switching Model with Endogenous Explanatory Variables. *Economics Department Working Paper*, Korea University.

[3] Kawai, M. 2007. Toward a Regional Exchange Rate Regime in East Asia. *ADB Institute Discussion Paper No.68.*

[4] Shambaugh, J.C., 2004. The Effect of Fixed Exchange Rates on Monetary Policy. *Quarterly Journal of Economics* 119, 301–352.

[5] Frankel, J.A., S.L. Schmulker, and L. Serven, 2002. Global Transmission of Interest Rates: Monetary Independence and Currency Regime. *NBER Working Paper Series WP8828*.

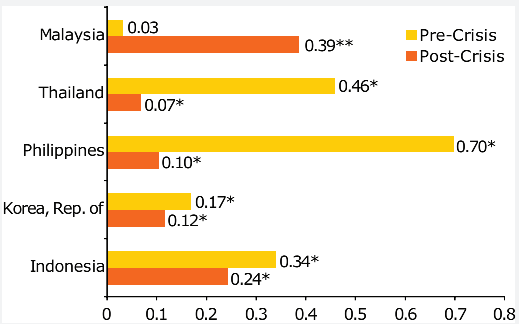
[6] Taken from the International Monetary Fund IFS and central bank websites.

[7] For Malaysia, it starts from July 2005 after the unpegging of the ringgit to the US dollar. The identified crisis period (1997:6 to 1998:10) is also largely aligned with Kim and Lee's (2004) dating of structural breaks for their similar set of countries.

coefficient, β. Since the crisis, β has fallen in general, suggesting that the long-run relationship has become weaker. That is, there is less evidence of a one-to-one relationship between domestic interest rates and the US federal funds rate after the crisis, except in Indonesia and the Philippines. For Indonesia, it is statistically insignificant to reject that there is one-to-one relationship, but β has declined nonetheless. For the Philippines, other circumstantial evidence suggests that the larger β after the crisis should be interpreted with caution and does not necessarily reflect a loss of monetary independence. Prior to the establishment of Bangko Sentral ng Pilipinas in 1993, which gave the central bank its legal independence, the Philippines was experiencing various fiscal and debt problems and monetary policy was preoccupied with resolving them.

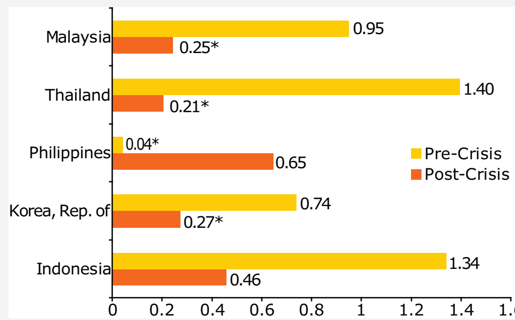
Taken together, these results support the idea that a move towards more flexible exchange rate management after the financial crisis has allowed greater monetary policy independence in many emerging East Asian economies. In the context of recent financial market developments and the likely impact on regional and global economies, the lesson from this empirical analysis is clear. The region's business cycles are heading in a different direction than the US, which is directly affected by the financial turmoil. To the extent that the region's business cycles diverge from that of the US, autonomous monetary policy is also needed. Allowing currencies to move more freely may help the region attain greater monetary policy lever in the face of increasing economic and financial uncertainty.

Figure B2.1: **Speed of Adjustment Coefficient** *(δ)*



Notes: * and ** denote significance at the 1% and 5% levels respectively. δ measures how quickly the long-run equilibrium between domestic interest rates and the US interest rates is restored.

Figure B2.2: **Long-run Sensitivity Coefficient** (β)



Notes: * denotes significance at the 1% level, meaning the rejection of the hypothesis β=1. β measures the long-run sensitivity of domestic interest rates to the US interest rates.

expectations for future appreciation and thus attracting more capital inflows. In economies with rigid exchange rates, it will be increasingly difficult to meet both internal and external objectives using monetary policy alone.

There may be merit in emerging East Asian economies cooperating to maintain relative stability in intraregional exchange rates, considering the increase in intraregional trade and other economic cooperation within the region.

With strong current and capital account surpluses, some economies in the region with more flexible exchange rates have experienced very rapid currency appreciation. These economies may be tempted to introduce some form of capital controls or use administrative measures to curb strong short-term capital inflows and portfolio investments. Hurried administrative measures, however, are potentially disruptive and may only temporarily alleviate the symptoms of underlying structural problems, and they should be used with caution. When any type of capital controls have to be used as a last resort, these should be carefully defined and precisely targeted to minimize creating distortions. But the trend of intraregional trade and investment flows is visibly rising and continues to support the region's economic growth. Where possible, drawing up a more coordinated regional approach to exchange rate policy might be a better alternative to take advantage of growing intraregional trade dynamic while helping alleviate the burden of sharp, unilateral appreciation pressures.

Even as economies design the right mix of macroeconomic responses, they will continue to benefit from undertaking deeper and more comprehensive structural reforms. With heightened financial volatility and its potential spillover on the global economy, the region's growth strategy should reinforce efforts to rebalance sources of growth while retaining resilience to external shocks. In this respect, areas of focus could include improvement of the investment climate and business environment, advancing post-crisis financial sector reform agendas, developing deeper financial markets in the region, and promoting energy efficiency and conservation.

For several ASEAN economies, a better investment climate could strengthen domestic demand—which could help offset lower external demand—and help ensure that strong capital inflows are put to better use.

The post-crisis recovery in investment remains incomplete in many of the region's economies, more specifically among the crisis-affected economies themselves. Key areas of weakness are policy uncertainties, governance, the quality of legal and institutional frameworks, and regulatory capacity. Addressing these problems will require more comprehensive structural reforms to improve efficiency and competitiveness through minimizing unnecessary regulatory barriers for businesses, encouraging private incentives and market discipline, creating a level playing field across all sectors, and fostering competition to upgrade institutional capacity.

Measures to develop efficient and deeper financial markets in the region can help enhance the resilience of the region's financial systems against heightened global market volatility.

Advancing post-crisis financial sector reform agendas remain key to ensuring financial stability in the crisis-affected countries in the face of large swings in capital flows. Financial sector weakness—coupled with a lack of prudential oversight—often led to booming credit and surging asset prices during past eras of liquidity, only to be followed by painful corrections. Although the region's banking and financial sectors have made remarkable progress, rapid financial globalization requires stepped-up efforts to keep up with the evolving financial environment and innovation. These efforts should include upgrading risk management, revamping information disclosure policies and transparency, enhancing governance, and strengthening prudential oversight. The sound management of private capital flows is also crucial, possibly by deepening financial markets, strengthening market infrastructure, building a sound legal and regulatory framework, and heightening market transparency.

Regional policymakers are well aware of the problem posed by the shallowness of financial markets in the region relative to deeper markets in the US, euro zone, and even more developed regional peers. Indeed, the Asian Bond Markets Initiative represents a clear desire to develop efficient and liquid bond markets in the region to diversify funding options and enhance the efficiency of financial resource allocation. Recent global turbulence reinforces the importance of more diverse and resilient financial systems in the face of potential market volatility.

Finally, measures to promote energy efficiency and conservation remain imperative, given record oil prices and the region's high dependency on oil imports.

Although significant efforts have been made to bring local prices closer to global levels, many countries in the region continue to subsidize energy prices or influence domestic prices. The incomplete pass-through could complicate macroeconomic management by weakening fiscal positions. The agenda for domestic energy market reform may include (i) reducing subsidies and aligning the local prices with global prices; (ii) removing upstream and downstream price controls and avoiding administrative market distortions; (iii) promoting energy conservation and energy efficiency; and (iv) fostering competitive energy markets that reward private sector innovation.