World Economic and Financial Surveys

REO Regional Economic Outlook

Asia and Pacific

MAY 06

INTERNATIONAL MONETARY FUND

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CONTENTS

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DEFINITIONS

In this Regional Economic Outlook, the following groupings are employed:

- Emerging Asia refers to China, India, Hong Kong SAR, Korea, Singapore, Taiwan Province of China, Indonesia, Malaysia, the Philippines, and Thailand.
- Industrial Asia refers to Japan, Australia, and New Zealand.
- Asia refers to emerging Asia plus industrial Asia.
- Newly industrialized economies (NIEs) refers to Hong Kong SAR, Korea, Singapore, and Taiwan Province of China.
- ASEAN-4 refers to Indonesia, Malaysia, the Philippines, and Thailand.
- Low-income countries in Asia (LIAs) include Bangladesh, Cambodia, Lao P.D.R., Mongolia, Sri Lanka, Nepal, and Vietnam

The following abbreviations are used:

- SAAR refers to seasonally adjusted increase at an annual rate.
- y/y refers to a year-on-year increase.
- q/q refers to a quarter-on-quarter increase.

EXECUTIVE SUMMARY

- The year 2006 is expected to be another good one for Asia. Growth for the region is forecast at 7 percent, the same as last year but higher than the 6 percent expected at the time of the August *Asia-Pacific Regional Economic Outlook*.

- Japan's recovery continues apace, with domestic demand strengthening on the back of robust corporate investment and a firming labor market, which is stimulating household incomes and consumption.

- Meanwhile, economies in emerging Asia are benefiting from a surge in external demand for the region's products, particularly electronics, which is expected to continue. And while domestic demand had long been tepid—China and India excepted—it has been gaining traction since early 2005.

- Asian economies could be affected by several global risks:

  - *High oil prices*. Rising oil bills have so far had a moderate effect on Asia's growth, but this may change going forward, especially as concerns about future supply—rather than unexpected increases in demand—have become the prime mover of prices.

  - *Tightening financial market conditions*. Financial markets in the region will likely be tested as global liquidity conditions tighten. Although banking soundness in Asia has improved, banks in some countries have experienced rapid growth of credit to households, and close supervision is called for. Asia has also benefited from the run-up in emerging market equity prices and like other regions, could see price declines if foreign investors were to pull back amid a rise in global risk aversion. But these risks should generally be manageable, owing to the region's improvements in fundamentals.

  - *Global current account imbalances*. A disorderly unwinding of the imbalances that would cause a sharp slowdown in U.S. demand would have significant consequences for Asia, which remains dependent on external demand.

  - *Avian flu*. The risk of a pandemic is the hardest to quantify but potentially the most devastating. The impact would depend partly on the quality of contingency plans, which remain largely untested.

- Inflation remains subdued, projected to average around 3 percent in 2006. However, the situation varies across the region, with price pressures being stronger in the ASEAN-4 countries. Even there, inflation should slow over the course of the year, as the influence of domestic oil price adjustments wanes and recent monetary tightening takes hold.

- External current account surpluses are diminishing in most countries, under the weight of growing oil import bills and, in some countries, stronger domestic demand. In emerging Asia excluding China the surplus is expected to fall to 2¾ percent of GDP this year, about half its 2004 level. In contrast, China's current account surplus more than doubled last year as exports surged, reaching 7 percent of GDP, a level that is projected also for this year.

- At the same time, capital inflows have generally diminished, as the spread of Asian interest rates over U.S. rates has narrowed and expectations of renmimbi appreciation have waned. Accordingly, exchange rate appreciations and reserve accumulation

have slowed. Looking ahead, inflows will depend on the extent to which these trends continue, and also on changes in the global financial environment, which could trigger a rise in risk premia on emerging market assets.

- In this environment, policymakers in emerging Asia are facing three main macroeconomic challenges. First, central banks need to deal with inflationary pressures arising from the surge in international oil prices, without endangering the recent improvements in domestic demand. Second, governments are trying to reduce their debts, while attempting to create the fiscal space needed to meet the costs of population aging and upgrading public infrastructure.

- Third, governments are trying to stimulate domestic demand, to support growth and reduce external imbalances. Over the past two years, they have allowed greater exchange rate flexibility, with some currencies such as the Korean won and the new Taiwan dollar appreciating particularly sharply, raising household purchasing power, and thereby stimulating consumption. China should utilize more fully the flexibility available under its new exchange rate arrangement, to promote more balanced and robust growth, and help deal with its large external imbalance.

- In emerging Asia (outside China), rebalancing demand will require an investment recovery. Investment fell by nearly 10 percent of GDP in the aftermath of the 1997 financial crisis and has not recovered since. In part, the fall was a reaction to the unsustainable boom (especially in construction) prior to 1997. But even taking this into account, the decline seems excessive. And nearly a decade later, the decline can no longer be blamed on transitional difficulties such as the need for corporations to restructure. Rather, there is some evidence that corporations are responding to an increase in risk, as export and output volatility have grown with the region's shift in production toward advanced industries such as electronics.

- This evidence suggests that to bolster investment, reforms need to advance on two broad fronts. The financial sector needs to be developed further, to promote its ability to transfer risk from the corporate sector to the wider investing public. Also, the investment climate needs to be improved, to reduce uncertainty—and increase the rate of return on investment.

- In China, by contrast, a key issue is how to bolster consumption, which has fallen by more than 10 percentage points of GDP since 1980 to around 40 percent of GDP. Much of this decline reflects a fall in households' disposable income (relative to GDP), since corporate profits have been rising but have not been transferred to households. In addition, households have maintained high rates of savings, in large part because they face growing uncertainties about the provision of their pensions, health care, and schooling.

- Resolving these problems will require macroeconomic policy changes and structural reforms that remove market distortions. In particular, consumption could be boosted through greater exchange rate flexibility and by a shift in budgetary spending towards social spending. Banking and financial market reforms will also help to increase consumption by expanding credit facilities, raising investment income and lowering precautionary savings.

I. RECENT DEVELOPMENTS AND OUTLOOK

Asia's growth has garnered strong momentum in recent quarters, with the region benefiting from a surge in external demand for electronic products, which has stimulated investment, employment, and consumption in most economies. While high oil prices remain a threat, the risks going forward are now more balanced than at the time of the August 2005 Regional Economic Outlook, notably because world growth has become more balanced and less dependent on the United States. Inflation remains a concern in some ASEAN-4 countries following increases in domestic fuel prices, but prompt monetary policy action has limited second-round effects so far.

Growth

The year 2006 is expected to be another good one for Asia. Growth for the region is forecast at 7 percent, the same as in 2005 but higher than the 6 percent expected at the time of the August *Regional Economic Outlook*. Japan's strong recovery continues apace, with the country expected once again to grow faster than its estimated long-run potential (Box 1). While growth is likely to moderate in China and India, this merely signals a return to more sustainable—but still very robust—levels.

Real GDP Growth
(Year-on-year percent change)

	2004	2005	2006 Proj.	2007 Proj.
Industrial Asia	**2.5**	**2.7**	**2.8**	**2.2**
Japan	2.3	2.7	2.8	2.1
Australia	3.6	2.5	2.9	3.2
New Zealand	4.3	2.0	0.9	2.1
Emerging Asia	**8.4**	**8.3**	**8.0**	**7.7**
China	10.1	9.9	9.5	9.0
India	7.4	8.0	7.3	7.0
NIEs	***5.9***	***4.5***	***5.2***	***4.5***
ASEAN-4	***5.8***	***5.2***	***5.1***	***5.7***
Asia	**7.1**	**7.1**	**6.9**	**6.6**

Sources: IMF, APDCORE database; and staff estimates.

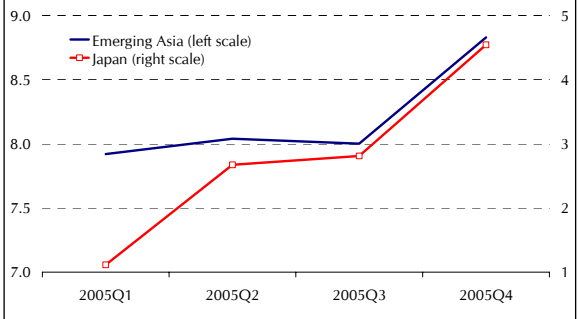
The region is benefiting from the strong momentum garnered in recent quarters. Growth in the second half of 2005 in China and the NIEs was over 2¼ percentage points higher than expected in August, with India and Japan providing positive surprises as well. Fourth quarter growth was strong in two ways, extending across the region and across sectors, with both exports and domestic demand gaining traction. Australia and New Zealand, though, were important exceptions (Box 2).

GDP Growth
(In percent)

	2004	2005	RO Proj.[1] 2005 Q4[2]	2005 Q4[2]
Industrial Asia	**2.5**	**2.7**	**2.5**	**2.8**
Japan	2.3	2.7	2.5	3.1
Australia	3.6	2.5	2.9	1.5
New Zealand	4.3	2.0	3.4	0.6
Emerging Asia	**8.4**	**8.3**	**6.5**	**8.9**
China	10.1	9.9	8.0	10.6
India	7.4	8.0	6.2	7.2
NIEs	**5.9**	**4.5**	**4.7**	**7.0**
ASEAN-4	**5.8**	**5.2**	**6.6**	**6.4**
Asia-13	**7.1**	**7.1**	**5.7**	**7.6**

Sources: IMF, APDCORE database; and staff estimates.
[1] As of August 2005.
[2] Growth from Q2 to Q4, SAAR; year-on-year change for China.

Asia: GDP Growth
(Year-on-year percent change)



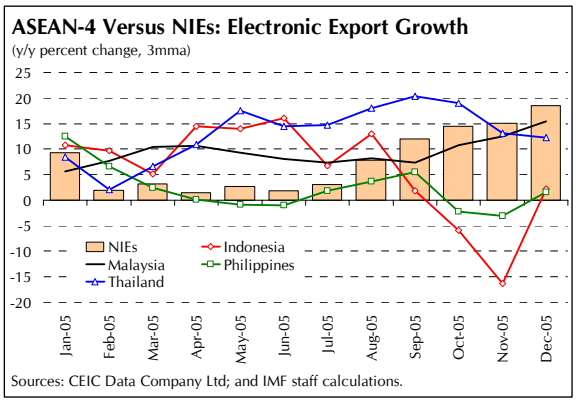
Sources: IMF, APDCORE database; and staff calculations.

The strong growth momentum derives in large part from a booming demand for electronics, which account for one-third of the region's exports. Global demand for all lines of electronics surged in the summer of

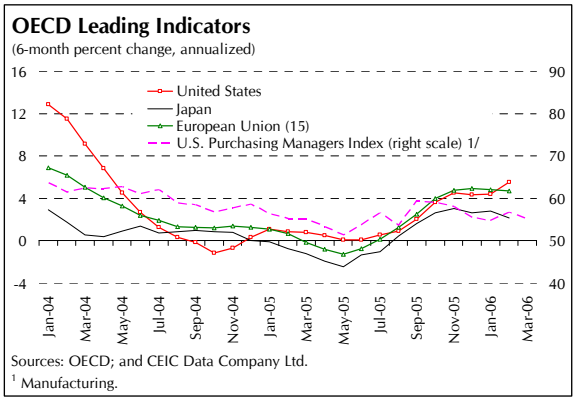
2005 and has remained buoyant since then, helped by a confluence of factors: a wider offering of high definition TV programming by cable companies helped boost sales of flat screen TVs and other ancillary products; phone companies improved network coverage for 3G Wireless, releasing pent up demand;[1] MP3 players became the mainstream choice for music replay, both portably and at home; and major companies switched to digital as photography's technology of choice. Equally important, better inventory management in the industry now means stronger contemporaneous correspondence between demand and production: for instance, while excess inventories in the chip industry amounted to $15 billion or one full month of revenues in late 2000, they only amounted to one-tenth of that amount in late 2004.

The NIEs have capitalized on this upswing, but the performance in the ASEAN-4 has been mixed. Growth in electronics exports has accelerated sharply since last summer in the NIEs, explaining why second-half growth in these economies surprised on the upside. Electronics exports have also been robust in Malaysia and Thailand (although they seem to be decelerating in the latter). But export performance has disappointed in the Philippines, and electronic shipments have plunged in Indonesia. The implications of this underperformance are not clear, since electronics exports from the Philippines and Indonesia are traditionally less correlated with the global cycle. However, there are signs that some ASEAN-4 economies could face medium-term challenges in electronics, stemming from underinvestment in the sector and the effective transfer of productive capacity to China (Box 3).

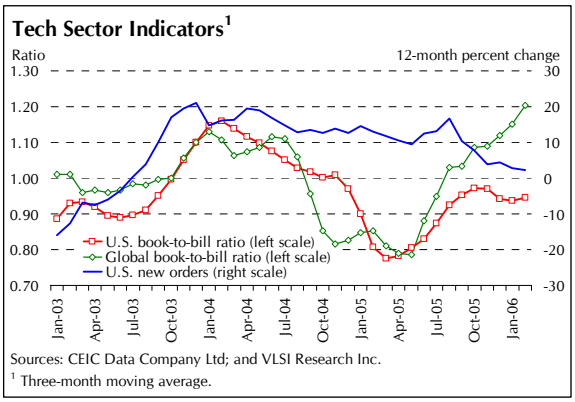
[1] These are wideband mobile services that allow users to, among other things, access the internet or TV on their cell phones.



Looking forward, external demand looks set to remain strong. The U.S. economy retains strong momentum despite a soft patch in the fourth quarter, and is projected to grow at a healthy 3¼ percent in 2006. Prospects have also improved in Europe, despite similarly disappointing fourth quarter figures. Of direct relevance for electronics exports, investment is growing briskly especially in the United States, with orders and shipments of capital goods now exceeding levels last seen at the peak of the IT boom. The Semiconductor Industry Association (SIA) expects global semiconductor sales to grow by 7.9 percent in 2006, higher than the 6.8 percent growth estimated for 2005. Admittedly, some widely-watched electronics indicators such as the U.S. book-to-bill ratio and U.S. new orders have declined, but this can be explained by the transfer of manufacturing capacity out of the U.S. and by anticipated price declines in semiconductors, respectively. More



pertinently for Asia, regional chip makers are reporting healthy growth in orders and the global book-to-bill ratio is at a historically high level.



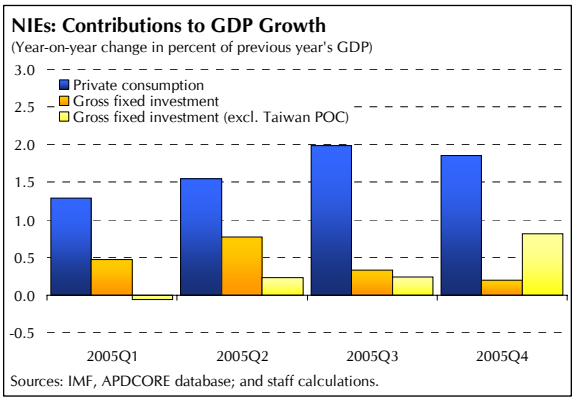
Shifts within the electronics sector could have within-region implications for growth. The SIA estimates flash memory sales to have grown by 58 percent in 2005 and expects a further 24 percent growth in 2006, while the figures for global DRAM sales are minus 5 percent and minus 10 percent, respectively.[2] (These figures do not take into account recent falls in flash memory prices, though, reflecting concerns about launch delays of some key products that use flash.) In the longer term, however, there is no doubt that flash will progressively replace DRAM and hard drives, as flash memory capacity increases and prices fall. Korean firms would benefit the most if these trends are confirmed, thanks to their superior competitiveness in flash memory products, while Japanese and Taiwanese firms also have the technology to shift production from DRAM to flash. ASEAN-4 producers, however, would be negatively affected if DRAM and hard disk production were to cede market share to flash.

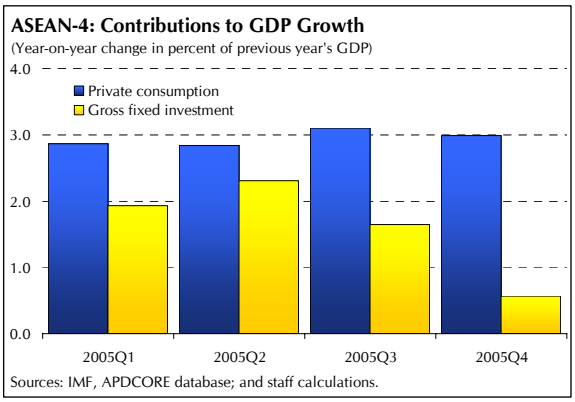
Emerging Asia's exports will also benefit from developments within Asia. In particular, Japan's recovery has deepened and broadened, with fourth quarter growth reaching an impressive 5½ percent (q/q, SAAR) and the contribution of domestic demand rising throughout the year. The yen's depreciation vis-à-vis regional currencies may have dampened imports from the region, but as the yen stabilizes and the expansion continues, these imports are likely to pick up further. In the meantime, China's imports are gaining momentum, growing at an annual rate of 25 percent in the first quarter of 2006 relative to the same period last year, compared with 22 percent in the fourth quarter of 2005. While a large part of these imports are processed and then rexported to third markets such as the U.S., China's role as a source of final import demand is growing. Handset-maker Nokia expects China to add 250 million mobile-phone subscribers by 2010, while sales of flat-screen TVs—many of them made outside of China—are estimated to have risen by close to 200 percent in 2005. China has now surpassed Japan as the third largest market for this product.

The region's export boom is lifting corporate profits and stimulating employment, income, and consumption. In some economies this process has been going on for some time. In Japan, for example, profits have been steadily rising since 2002 and are now at levels last seen in the late 1980s, leading to vigorous hiring and wage growth. In other countries,

[2] DRAM and flash are two different types of memory chips. In DRAM, any byte of memory can be accessed directly without proceeding sequentially through the preceding bytes, making information retrieval fast. However, DRAM chips are volatile, meaning that any information stored is lost when the power is turned off. Flash is gaining market share over DRAM because it is nonvolatile, a very convenient feature for popular items such as handsets and MP3 players. Flash remains slower and more expensive to produce than DRAM, but the gap is closing.

this process is in the early stages. In Korea, the export boom in the second half of last year has contributed to an increase in employment (seasonally adjusted) of about 240,000 between September 2005 and March 2006, versus a loss of 70,000 jobs during the third quarter of 2005. And as employment and household incomes have increased across emerging Asia—including on farms, thanks to high commodity prices—consumption has accelerated, with annualized growth reaching 7 percent in the fourth quarter.[3] Even in the ASEAN-4, consumption has been remarkably resilient despite increases in fuel prices, rising inflation, and higher interest rates.





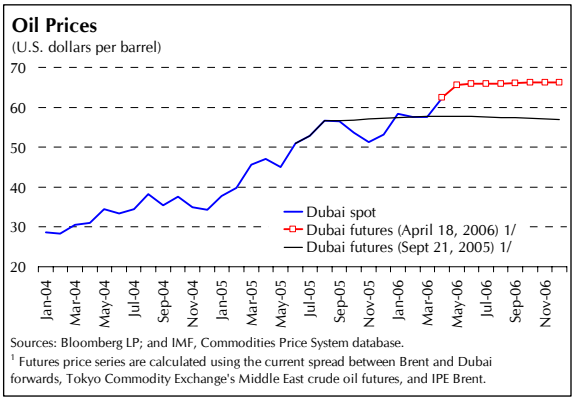
[3] Emerging Asia here excludes China and India, for which quarterly data on expenditure components are not available.

Prospects for investment are generally improving in the NIEs but not in the ASEAN-4, where higher uncertainty following recent fuel price increases has led firms to be more cautious. After a slump, investment's contribution to growth has generally been rising in the NIEs, as high corporate profits have allowed firms to expand capacity and profit from good economic conditions. Residential investment is not faring as well as equipment investment in these economies, but this is due to very specific factors: land sales have been slow in Hong Kong SAR, and Korea recently passed measures to rein in increases in housing prices. The situation in Taiwan Province of China is more worrisome, though, as the fall in investment there has been large and broad-based—and has occurred despite a strong export performance. Meanwhile, in the ASEAN-4, investment was undermined initially by the uncertainty ahead of recent increases in fuel prices, and then by the subsequent inflation and rising interest rates, particularly in Indonesia. There was also a sharp fall in public investment in the fourth quarter in Malaysia. But looking ahead, investment in the ASEAN-4 is likely to rebound as public investment revives and these economies adjust to the fuel price increases.

Economic risks to Asia's outlook are more balanced than at the time of the August Regional Outlook. On the positive side, the rise in U.S. corporate investment is lifting some weight off the shoulders of American consumers. At the same time, global demand is becoming less dependent on the United States, with activity picking up in Europe—albeit after a soft fourth quarter—and the recovery in Japan proving stronger than expected.

High oil prices, however, remain a threat to the outlook (Box 4). While rising oil bills have so far had only a moderate effect on

global economic activity in general and on Asia's growth in particular, this may change going forward, as recent oil price increases have mostly been due to concerns about future supply rather than unexpected increases in demand.



Sources: Bloomberg LP; and IMF, Commodities Price System database.
[1] Futures price series are calculated using the current spread between Brent and Dubai forwards, Tokyo Commodity Exchange's Middle East crude oil futures, and IPE Brent.

In addition, financial markets in the region will likely be tested as global liquidity conditions tighten (Chapter II). Although banking soundness has improved, in some countries banks have experienced rapid growth of credit to households, and close supervision is needed (Box 5). Asia has also benefited from the run-up in emerging market equity prices and like other regions, could see equity market declines if foreign investors were to pull back amid a rise in global risk aversion. But, these risks should generally be manageable, owing to the improvements in the region's economic fundamentals.

Global imbalances pose another risk, but probably not in the short term. The U.S. current account deficit is projected at 6½ percent of GDP in 2006, about the same as last year. While a disorderly adjustment to global imbalances seems unlikely in the immediate future, a sharp slowdown in U.S. demand would have significant consequences for Asia, which remains highly dependent on external demand.

The risk of an avian flu pandemic is the hardest to quantify but potentially the most devastating. The deadly H5N1 virus has now spread to Africa and to continental Europe. While the human death toll so far has been contained, a mutation of the gene that would lead to human-to-human transmission—and hence to much higher infection rates among humans—cannot be ruled out. The effects of such a pandemic on Asia's economy are very hard to estimate and depend partly on the quality of contingency plans, which remain largely untested, but they could potentially amount to several percentage points of GDP (Box 6).

Inflation

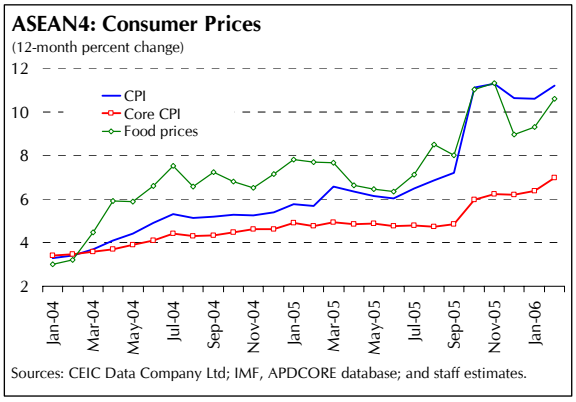
Inflation has risen to double-digit levels in the ASEAN-4 due to fuel price increases, but second-round effects so far have been modest. Headline inflation now stands at the 10¼ percent mark in the ASEAN-4 because of the 15¾ percent rate in Indonesia, but inflation in the Philippines is also significant at 7½ percent. Core inflation in ASEAN-4 accelerated with the fuel price increases, but this was almost entirely driven by developments in Indonesia. Even in Indonesia, core and headline inflation have remained subdued lately on a month-to-month basis. Looking forward, average headline inflation in the ASEAN-4 is projected

CPI Inflation
(Year-on-year percent change, average)

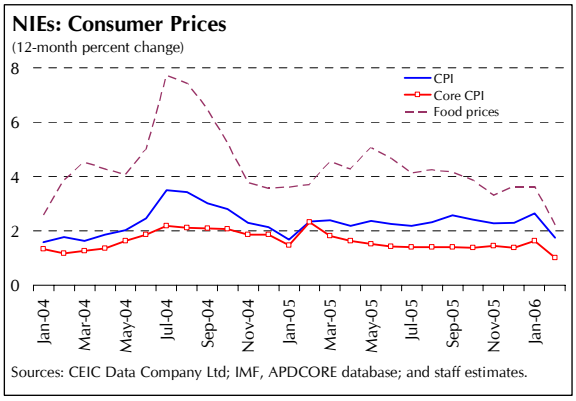
	2004	2005	2006 Latest	2006 Proj.	2007 Proj.
Industrial Asia	**0.4**	**0.2**	**0.8**	**0.7**	**0.9**
Japan	0.0	-0.3	0.4	0.2	0.6
Australia	2.3	2.7	2.8	2.9	2.7
New Zealand	2.3	3.0	3.2	2.7	2.4
Emerging Asia	**4.4**	**3.2**	**2.8**	**3.5**	**3.2**
China	3.9	1.8	0.9	2.0	2.2
India[1]	6.6	4.7	4.0	5.1	5.5
NIEs	**2.4**	**2.3**	**1.4**	**2.1**	**2.3**
ASEAN-4	**4.6**	**7.5**	**10.3**	**8.9**	**4.6**
Asia	**3.5**	**2.6**	**2.4**	**2.9**	**2.8**

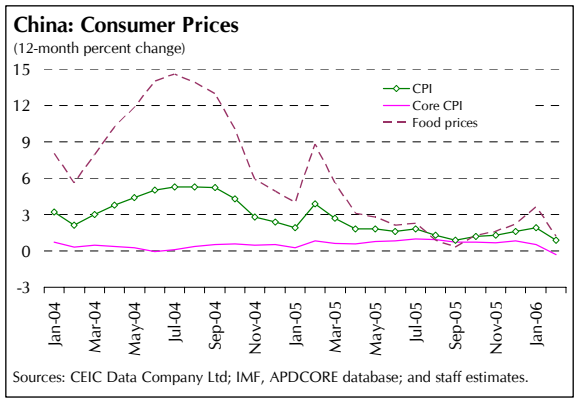
Sources: IMF, APDCORE database; and staff estimates.
[1] Wholesale prices for India.

to come down to 9 percent in 2006 as the effect of fuel price increases wanes. However, much depends on the path of world oil prices, and on future decisions to reduce oil price subsidies, which remain significant in Indonesia and Malaysia despite recent domestic price increases. Meanwhile, inflation may rise this year in India, perhaps by half a percentage point to 5 percent, on account of strong domestic demand.



In the rest of emerging Asia, inflation is expected to rise slightly, to around 2 percent. In China, higher inflation is expected to come from planned reforms of energy and utility prices, although overcapacity in other sectors will put a lid on price pressures. Food price inflation, an important determinant of overall inflation in China, is expected to stabilize at current levels after falling for much of 2005.[4] Meanwhile, vigorous exports and domestic demand recoveries should help close the output gap in the NIEs, but even so inflationary expectations remain well contained.





External Sector

Excluding China, Asia's current account surplus has been shrinking. High oil prices are estimated to have added some $30 billion to imports in emerging Asia excluding China between 2003 and 2005, and to have accounted for one-third of total import growth in Japan in 2005. And further pressure on

Current Account Balances
(In billions of U.S. dollars)

	2004	2005	2006 Proj.	2007 Proj.
Industrial Asia	**125.4**	**112.3**	**89.9**	**83.4**
Japan	172.1	163.9	140.2	133.6
Australia	-40.2	-42.0	-40.8	-41.8
New Zealand	-6.5	-9.6	-9.5	-8.4
Emerging Asia	**185.7**	**253.0**	**257.2**	**275.4**
China	68.7	158.6	173.3	189.6
India	1.4	-12.9	-26.1	-28.7
NIEs	**88.7**	**85.8**	**88.6**	**93.9**
ASEAN-4	**26.9**	**21.5**	**21.5**	**20.6**
Asia	**311.1**	**365.3**	**347.2**	**358.8**
Emerging Asia excl. China	**117.1**	**94.4**	**83.9**	**85.8**

Sources: IMF, APDCORE database; and staff estimates.

[4] Food items account for some 50 percent of China's CPI basket. Food price inflation in 2005 was partly distorted by an exceptionally poor harvest in 2004.

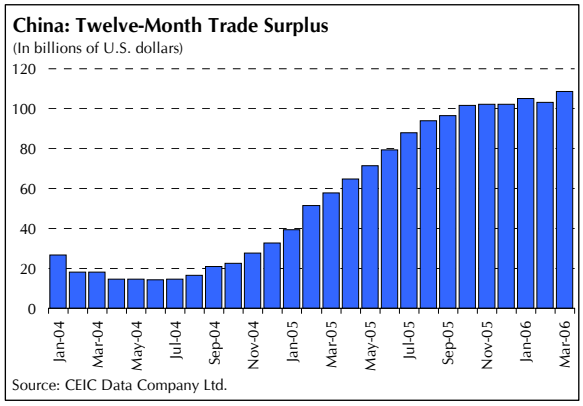
imports has come from domestic demand, notably in Japan and India. As a result, imports grew much faster than booming exports, reducing the current account surplus of emerging Asia excluding China by an estimated $23 billion or 1½ percentage point of GDP in 2005, while Japan's surplus fell by $8 billion or ¼ percentage point of GDP. Looking forward, strong domestic demand will lead to a further deterioration of the current account balance in Japan and India, while vigorous exports will help stabilize the balance in the ASEAN-4 and boost it slightly in the NIEs.

Current Account Balances
(Percent of GDP)

	Current account				Non-oil current account			
	2004	2005	2006 Proj.	2007 Proj.	2004	2005 Est.	2006 Proj.	2007 Proj.
Industrial Asia	**2.4**	**2.1**	**1.7**	**1.5**	**3.8**	**4.0**	**4.1**	**4.0**
Japan	3.8	3.6	3.2	2.9	5.3	5.8	5.8	5.7
Australia	-6.3	-5.9	-5.6	-5.5	-5.9	-5.5	-5.0	-4.8
New Zealand	-6.7	-8.9	-8.9	-7.6	-4.3	-6.1	-6.0	-4.8
Emerging Asia	**4.2**	**5.0**	**4.5**	**4.4**	**7.7**	**9.8**	**10.2**	**10.5**
China	3.6	7.1	6.9	6.7	7.3	12.9	14.0	14.7
India	0.2	-1.8	-3.1	-3.1	3.4	1.4	1.0	0.8
NIEs	**7.0**	**6.0**	**5.7**	**5.6**	**10.8**	**10.7**	**10.7**	**10.7**
ASEAN-4	**4.4**	**3.1**	**2.8**	**2.5**	**7.0**	**7.2**	**7.0**	**6.4**
Asia	**3.2**	**3.5**	**3.2**	**3.1**	**5.6**	**6.8**	**7.3**	**7.5**
Emerging Asia excl. China	**4.7**	**3.4**	**2.7**	**2.5**	**8.0**	**7.4**	**7.2**	**7.0**

Sources: IMF, *World Economic Outlook* ; APDCORE database; and staff estimates.

By contrast, China's current account surplus more than doubled in 2005, but is now projected to stabilize. The current account surplus grew from $69 billion in 2004 to close to $160 billion in 2005, an increase of 3½ percentage points of GDP. However, on a sequential basis, Chinese export volume growth has softened, while imports have risen rapidly since August after four months of virtual stagnation, reflecting higher domestic spending. As a result, China's trade surplus has stabilized somewhat in recent months, a trend that is expected to continue in the rest of 2006. For the year as a whole, the current account surplus is forecast to remain at 7 percent of GDP.

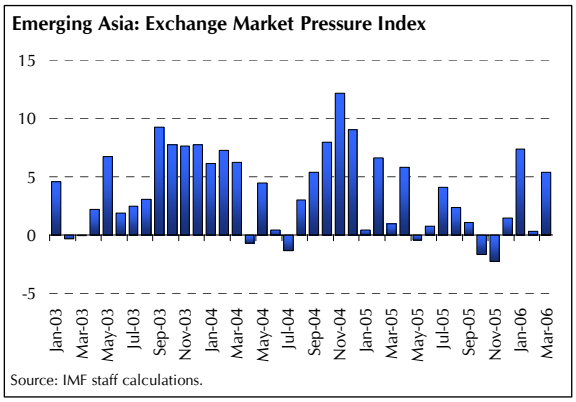


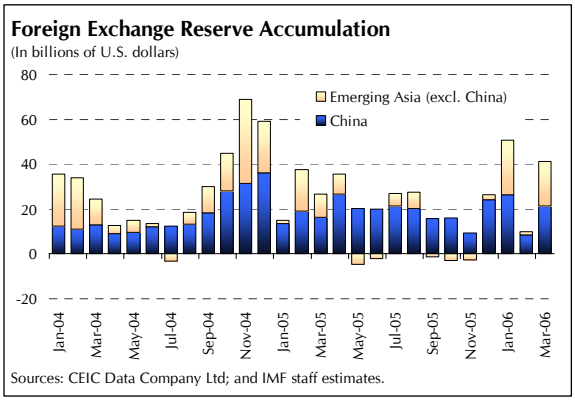
II. FINANCIAL DEVELOPMENTS IN EMERGING ASIA

Capital flows to emerging Asia have declined, mainly because the spread of Asian interest rates over U.S. rates has narrowed and expectations of renminbi appreciation have waned. Accordingly, apart from brief bouts of pressure, exchange rate appreciations and reserve accumulation have slowed, outside of China. Looking ahead, FDI flows are expected to continue, but portfolio flows could become volatile should the international financial environment deteriorate.

Since the middle of 2005, capital flows to emerging Asia have largely subsided.[1] Overall net capital flows actually turned negative in the second half of 2005, after reaching $40 billion in the first half, reducing exchange market pressure considerably. Equity inflows have remained sizeable, but portfolio and other non-FDI inflows have declined sharply as expectations of a renminbi revaluation waned following the adjustment on July 21, and the spread between regional and U.S interest rates narrowed.

As capital inflows have declined, the accumulation of official reserves has moderated—except in China. In the latter half of 2005, reserve accumulation in emerging Asia excluding China amounted to a mere $8 billion, compared with $32 billion in the first half of last year. In China, the growth of foreign reserves remained essentially unchanged at around $100 billion per half-year, but there was a remarkable shift in the source of the increase, with the proportion coming from capital inflows diminishing and the share coming from the current account growing, as exports boomed while imports stagnated. By the turn of the year, the current balance accounted for nearly all of China's increase in reserves.



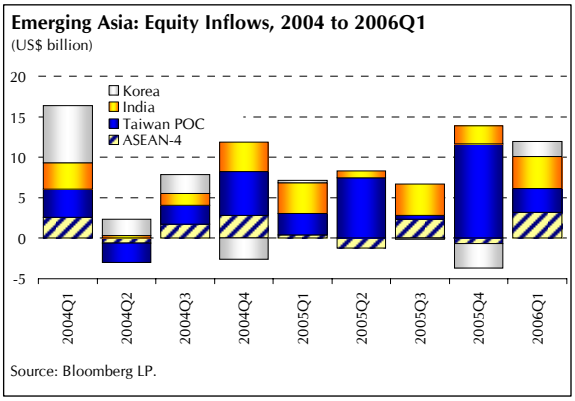


At the same time, currency appreciations against the dollar in the region slowed. But with the yen weakening, regional currencies appreciated in nominal effective exchange terms.

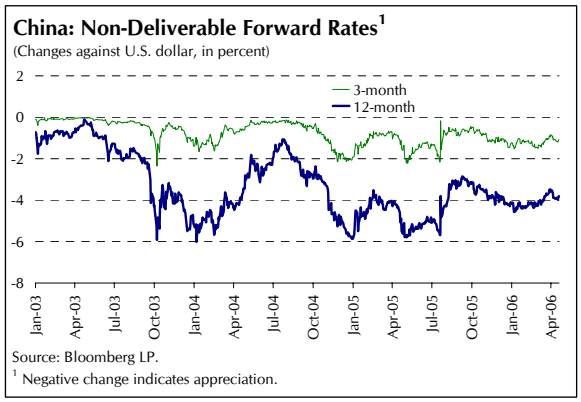
There have, however, been brief surges in portfolio inflows, notably around the turn of the year and in March-April 2006. In December, international investors increased

[1] Apart from a brief period around the turn of the year; see below. The exchange rate market pressure index is measured as the sum of the growth of the nominal exchange rate and the change in international reserves as a fraction of the monetary base. The index for the region as a whole is a non-weighted average.

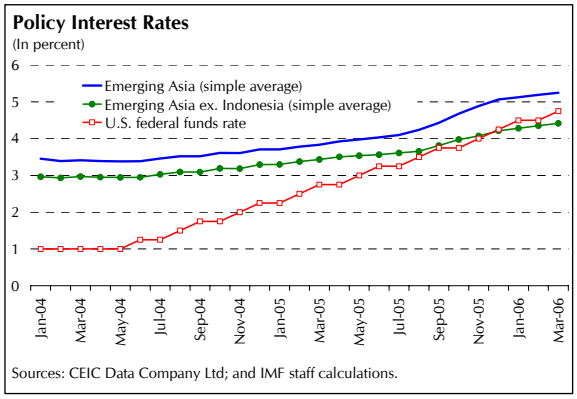
their exposure to emerging markets overall, triggering a $10 billion surge in net equity inflows into emerging Asia, the fastest pace since the first quarter of 2004.[2] Net inflows continued in the beginning of the year reaching a total of $10 billion for January and February 2006. In response, country authorities initially allowed regional currencies to appreciate, but then stepped up intervention. As a result, reserve accumulation for the region, outside of China, picked up to $25 billion in January. After a lull in February and March, equity inflows picked up again in April, driving a renewed appreciation of regional exchange rates.



A key reason why inflows into the region have moderated is that expectations of a large revaluation of the Chinese and other regional currencies have diminished after the Chinese authorities revalued the renminbi. On July 21, the renminbi was revalued by 2.1 percent, far less than many had been expecting. The authorities subsequently have made it clear that there would be no further *ad hoc* step adjustments in the exchange. In consequence, as the likelihood of a large appreciation has diminished, capital inflows into China have waned, as have "renminbi plays" on other currencies, such as the Korean won.



Another reason why capital inflows have diminished is that interest rate spreads between U.S and regional rates have generally narrowed. At the beginning of the monetary tightening cycle in the United States in May 2004, the average spread between Asian policy rates and U.S. Fed Fund rates was around 240 basis points.[3] But as the Federal Reserve gradually tightened monetary policy while policy rates in the region remained relatively stable from mid-2004 to mid-2005, this spread narrowed to

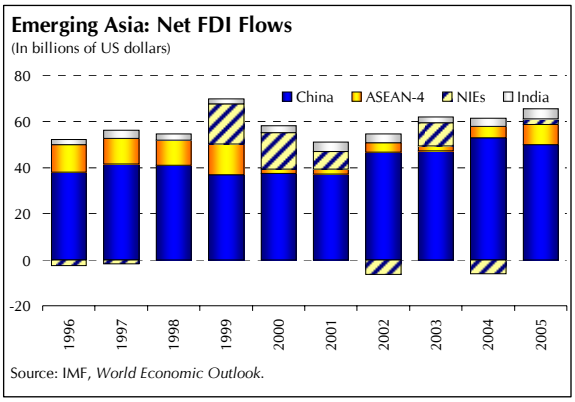


[2] In January alone, net flows into dedicated funds on global emerging markets increased by $10 billion, compared with an inflow of $17 billion for the whole of 2005.

[3] This is a simple unweighted average of policy rates in emerging Asia.

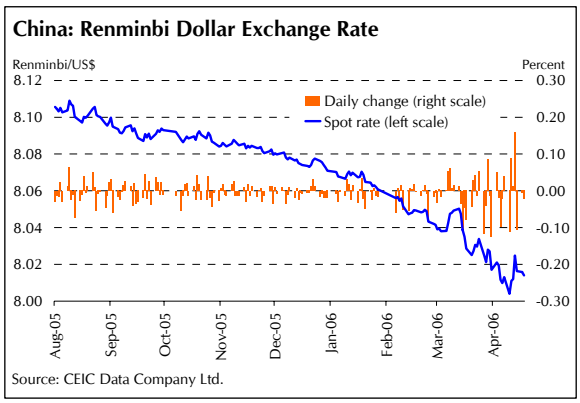
just 70 basis points. Since mid-2005, in response to a pick up in inflationary pressures, monetary policy in the region has been tightened, especially in Indonesia, and the spread has stabilized, amounting to 50 basis points in mid-April. Even so, apart from Indonesia, the spread has vanished and policy rates in most economies in the region have now fallen below that of the United States.

Looking ahead, FDI flows into the region are expected to remain buoyant in 2006. Overall net FDI flows increased in 2005 to $66 billion from $55 billion in 2004. This increase was largely due to a recovery in FDI to the ASEAN-4 countries; these flows are now back to levels not seem since 1999. It is not yet clear why this is occurring: in part, ASEAN seems to be benefiting from a desire on the part of multinationals to diversify production locations in the region; in part, China's boom seems to be stimulating investment in upstream activities, such as mining. In any case, this recovery is projected to continue in 2006.



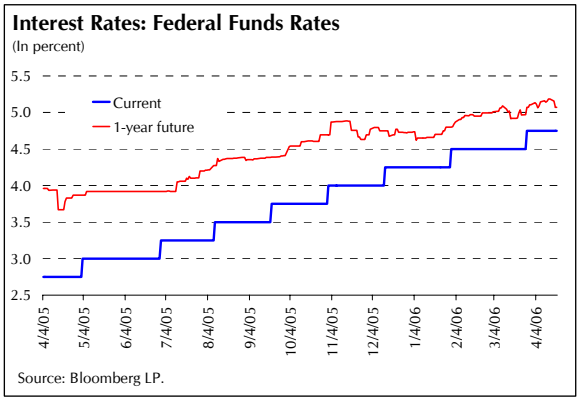
Meanwhile, FDI into the two largest countries in emerging Asia should remain strong. In China, large inward FDI flows should continue, although they will be partially offset by growing outward FDI. Flows to India are also expected to rise as the country is seen increasingly as an attractive FDI destination, especially if progress is maintained in improving infrastructure and deepening structural reforms.

As for portfolio flows, these will depend importantly on three factors, starting with the outlook for the renminbi. Since September, revaluation expectations have revived somewhat, with the Non Deliverable Forward (NDF) market pointing to a four percent appreciation in twelve months. But in marked contrast to last year, the range of expected outcomes has narrowed, as the market seem to be pricing in the recent policy statements from the Chinese authorities. At the March 14 session of the National People's Congress, Premier Wen indicated that there would be no more surprises on the currency front (i.e., *ad hoc* revaluations) and focus would be placed instead on improving exchange rate flexibility, supported by recent measures taken to liberalize the foreign exchange market.

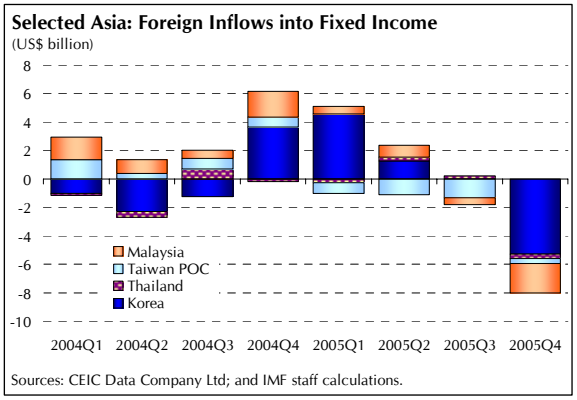


Second, the outlook for portfolio flows will be affected by the evolution of spreads between Asian and U.S. interest rates. Much will depend on the extent of further tightening by the Fed and the extent to which regional economies follow in raising policy rates. If the tightening cycle in the United States ends quickly, it could alleviate possible pressures for Asian central banks to raise interest rates further. Such a situation would also help shift investors' focus away from interest rate differentials onto the large U.S.

current account deficit and the still-significant Asian surpluses, thereby sparking a weakening of the U.S. dollar and renewed upward pressure on regional currencies. In these circumstances, capital inflows into emerging Asia could surge. Alternatively, if U.S. rates continue to rise well into the year, Asia's interest spreads could narrow further, weakening the regional balance of payments and perhaps even putting Asian currencies under downward pressure.



The recent narrowing of the policy rate spread has already led to some sizable portfolio outflows. During late 2004-early 2005, when international investors expected regional currencies to appreciate in line with a possible large revaluation of the Chinese renminbi, economies in the region, especially Korea and Malaysia, recorded more than $10 billion of inflows into domestic fixed income instruments. But as expectations of a sizable appreciation of regional currencies waned and U.S. interest rates rose above 4 percent, foreign investors unwound most of their long Asian fixed income positions, causing inflows to turn negative in the third quarter of 2005 and even more negative in the fourth quarter.



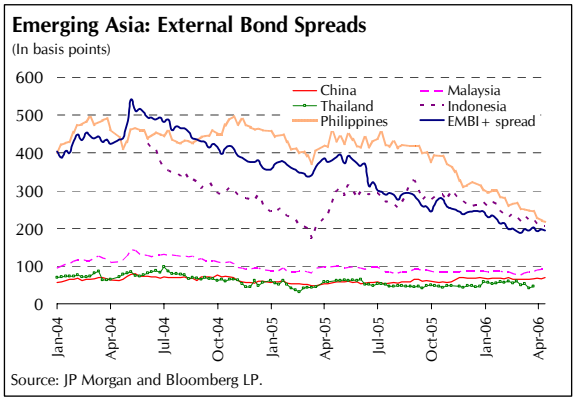
In contrast, the end to quantitative easing in Japan is not expected to have much impact on capital flows to emerging Asia (Box 7). The yen carry trade,[4] which was fueled by near-zero short-term interest rates in Japan, has certainly financed some investments into higher yielding assets and currencies in emerging Asia. The end of the quantitative easing policy, however, is unlikely to change the underlying conditions for the yen carry trade greatly as any decline in liquidity will affect only excess reserves held at the Bank of Japan (BoJ), while the BoJ has committed to maintain short-term interest rates near zero for some time. Any rise in long-term rates may also be contained, as the BoJ intends to continue its purchases of long-term government bonds. Moreover, thanks to consistent signaling from the BoJ, this policy move has been largely discounted by markets. However, changes in global risk premia or a change in dollar/yen exchange rate expectations that could arise in case of an earlier end to monetary tightening in the United States could still potentially bring about some unwinding of yen carry trades, with significant impact on capital flows.

Third, the outlook for capital flows to emerging Asia would be affected if emerging market spreads surge abruptly and global risk premia rise. So far, capital flows to the region have benefited from a benign international financial environment of low

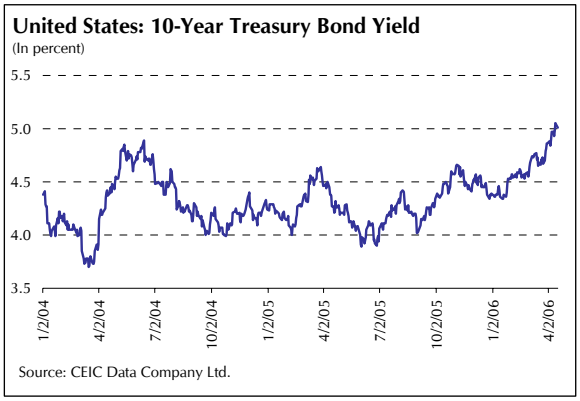
[4] Yen carry trades are activities whereby international investors borrow yen to invest in higher-yielding currencies.

long-term interest rates in the United States and low risk aversion which has fueled declines in emerging market spreads globally as well as in the region. This narrowing of spreads has triggered a boom in external bond issuance, which reached $54 billion in 2005, its highest level since the late 1990s (Box 8). Declining risk aversion has also fueled inflows into stock markets, which have risen by 30 percent on average since mid-2005, setting off in turn a surge in issues of new equity.

In fact, emerging market spreads in the region have tightened further recently, especially in ASEAN-4 economies. Apart from the benign international financial conditions, this also reflected improved market sentiment in the Philippines and Indonesia following the recent adoption of policy packages to deal with fiscal vulnerabilities. In the Philippines, the spread on dollar bonds has fallen below 300 basis points for the first time in recent history, while in Indonesia, investor sentiment has improved markedly after the authorities cut subsidies on petroleum products while at the same time raising interest rates sharply.



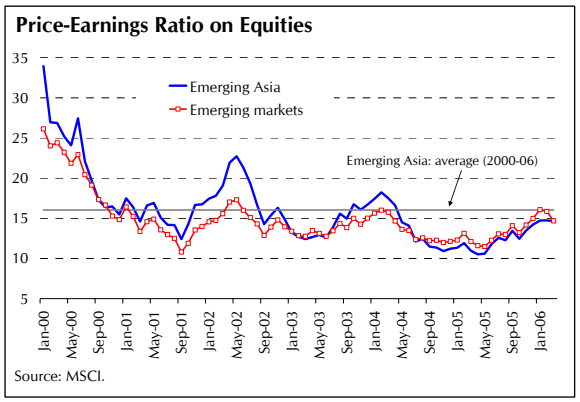
The benign international financial environment could, however, worsen. In this regard, recent financial developments in the United States are giving grounds for caution. Yields on long-term Treasury bonds have increased in 2006—with the yield on the 10-year Treasury bonds reaching 5 percent, its highest level since the beginning of the monetary tightening cycle, two years ago. So far, these developments have not had much impact on emerging market spreads and currencies, but if they were to persist, the recent fall in risk premia that has occurred in the region would likely stop and eventually revert.



Should external spreads rise, the impact on sovereign regional borrowers should be manageable. Among emerging Asian economies, only Indonesia and the Philippines would be affected by a rise in risk premia, given their relatively higher spreads and reliance on foreign financing. But even in these two cases macroeconomic fundamentals have improved significantly over the past few years. Private external debt is now at moderate levels, while fiscal positions have improved—and not only because growth has picked up, but also thanks to a series of fiscal measures.

The impact on regional asset markets should be manageable as well. In sharp contrast to the mid-1990s, asset prices are not overvalued. Housing prices remain well below their pre-crisis peaks in real terms, while equity markets valuations do not appear excessive. Following the recent rally in equity markets in the region, the average price-earnings (PE) ratio has risen from around 12 at mid-year 2005 to 14½ at

end-March. But, by historical standards and with the exception of India, these PE ratios are not high —they are still below the average since 2000 of 16—because the rise in stock prices has almost been matched by an increase in corporate profits. Moreover, the region's equity markets appear still cheaper than emerging markets in other parts of the world.



More generally, economies have become more resilient to capital account shocks. External vulnerabilities in most countries have been brought down significantly, as external debt levels have declined, foreign reserves have soared, and exchange rates have become more flexible. At the same time, corporates have improved their profitability and reduced their leverage ratios, while banking systems have become much stronger. Companies—and countries—also depend less on the more risky forms of capital inflows, with the share of FDI now much larger than in the mid-1990s and the share of short-term external borrowing much smaller. Similarly, the absolute level of portfolio flows to the region is now much smaller than during the mid-1990s—or even the level of 2003-04.

Still, there are grounds for caution. If a deterioration in the international financial environment is accompanied by a sharp slowdown in the global economy, emerging Asia—given its extensive trade and financial links with the rest of the world—would not remain unscathed.

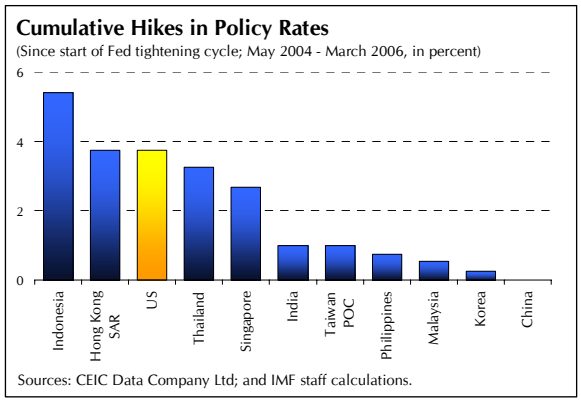
III. MACROECONOMIC POLICY ISSUES

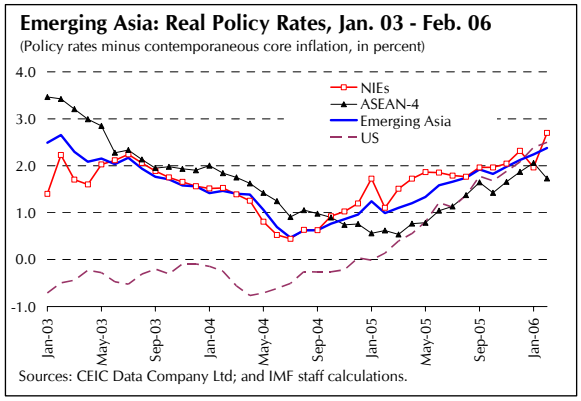
Macroeconomic policymakers in emerging Asia are facing several broad challenges. First, central banks need to deal with inflationary pressures arising from the surge in international oil prices, without endangering the recent improvements in domestic demand. Second, governments are trying to reduce their debts, while attempting to create the fiscal space needed to meet the costs of population aging and upgrading public infrastructure.

Monetary Policy

Central banks in emerging Asia are facing a delicate balancing act. They are addressing the inflationary pressures that have arisen from the doubling of international oil prices between the end of 2003 and end-2005. But at the same time they are being careful to avoid undermining the nascent recovery of domestic demand**.**

Monetary policy actions have varied according to country-specific circumstances. Since the start of the current U.S. tightening cycle in June 2004, some countries have raised policy rates aggressively in response to an upturn in inflation. In Indonesia, policy rates have risen by around 550 basis points, while in Thailand they have increased by 325 basis points. In other countries, where inflationary pressures have been less pronounced, policy rates have been raised by less. Examples are Korea, where the cumulative rise in policy rates has amounted to 25 basis points, and China, which has not raised policy rates at all.[1] In many cases, the fact that exchange rates have been strengthening recently has given authorities greater room for maneuver on interest rate policy.



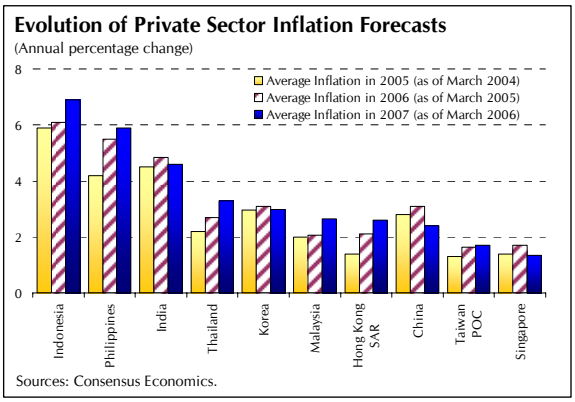


The rate increases have effected a modest tightening of the monetary stance. While the increases have essentially matched the rise in headline inflation, they have exceeded the rise in the more relevant index—core inflation, excluding the inevitable impact from the doubling of world energy prices. Relative to core inflation, real policy rates have increased by 1.3 percentage points in emerging Asia since the start of the current tightening cycle, with over half of the increase—0.8 percentage points—occurring

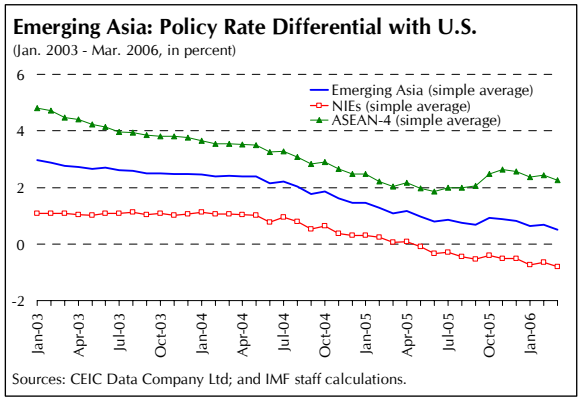
[1] Though the rate of remuneration on excess reserves was reduced in March 2005, and local currency deposit and lending rates were increased in October 2004.

since the middle of 2005.[2] Within the region, the largest increase in real rates has occurred in India (4.4 percent), reflecting a marked decline in core wholesale price inflation.

Headline inflation is projected to subside over the course of 2006. One reason is that expectations of inflation seem generally well-anchored. As of March of this year, the private sector consensus forecast for average inflation in emerging Asia in 2007, when base effects from fuel price increases will have come off, is just 3.4 percent. For the ASEAN-4, the consensus forecast for 2007 has increased to 4.7 percent, 1.1 percentage points higher than the 2005 forecast made two years ago—a significant increase, but still small compared to the large increase in headline inflation.[3]



Policy challenges remain, however, since the inflation outlook is not without risk. One key risk lies in the narrowing interest differential between emerging Asia and the United States. This differential has narrowed to around 50 basis points, from above 240 basis points before the current tightening cycle began. Even for the ASEAN-4, where the nominal increases in policy rates have been the largest, the interest differential remains well below its historical average.



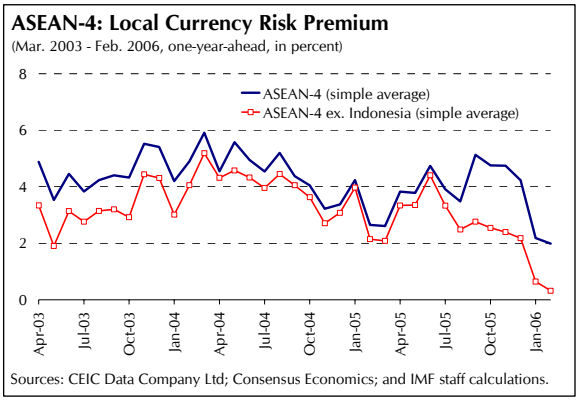
So far, the small interest differential has proved sustainable because risk premia have fallen, especially for the ASEAN-4. Using the uncovered interest parity condition to recover a one-year-ahead local currency risk premium relative to the U.S. dollar suggests that the risk premium for the ASEAN-4 had fallen below 2 percent as of February 2006, compared to an average of above 4 percent since mid-2003.[4] Excluding Indonesia, this premium had fallen to just 0.3 percent. To a certain extent, the decline in risk premia reflects a recognition of ongoing reforms that

[2] These calculations are based on simple averages of real policy rates in emerging Asia.

[3] Among the ASEAN-4, inflation expectations for 2007 are highest in Indonesia, and are above the inflation target in the Philippines, calling for continued policy vigilance.

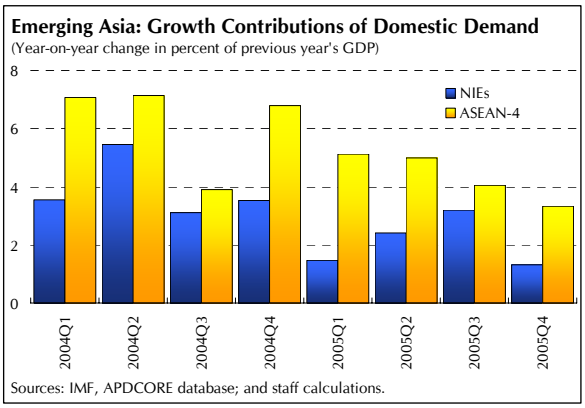
[4] Risk premia are calculated as $(i-i^*) - E(\Delta e)$ where i and i^* are secondary market rates on a one-year local currency bond in an ASEAN-4 country and in the United States, respectively, while $E(\Delta e)$ is the one-year-ahead expected depreciation of the exchange rate against the U.S. dollar from Consensus Economics. In contrast to the bond spreads in Chapter II, these risk premia capture currency risk in addition to sovereign default risk. See R. Balakrishnan and V. Tulin, "The Risk Premium on the U.S. Dollar," (forthcoming).

are improving macroeconomic stability and growth prospects. But it is also due to abundant global liquidity.



Consequently, risk premia could rise again as global liquidity conditions tighten. If the U.S. Federal Reserve and other major central banks continue to raise policy rates, further eroding Asia's interest spreads, the regional balance of payments may weaken and currencies could begin to face downward pressure. As a result, even taking into account the dampening effects from a jump in risk premia on domestic demand, headline and core inflation rates could rise, and inflation expectations could increase, as well. The dangers are particularly high in countries which still need to pass on the global oil price increase into domestic prices, for in these countries external pressures could coincide with supply-side shocks from domestic price adjustments. (Countries where pass-through remains incomplete include China, Malaysia, India, and Indonesia.)

Should such a scenario materialize, it would present central banks with a policy dilemma, for further rate increases could undermine economic growth. The dilemma would be particularly acute in some of the ASEAN-4, where the rollover and foreign exchange risk associated with high levels of public debt (Philippines, and Indonesia and Thailand to a lesser extent) could force monetary policy to tighten even as domestic demand is weakening. This dilemma is less pronounced in the NIEs, where external positions are stronger, allowing monetary policy to accommodate still weak domestic demand. By contrast, in India, where domestic demand has long been strong, both robust credit growth and the growing importance of return-sensitive portfolio flows in financing the current account deficit suggest that further tightening may be needed going forward.



Finally, in Japan incipient price pressures have been welcomed, as they signal an end to a prolonged period of deflation and depressed demand. As a result, the BoJ in mid-March announced that it was exiting from its quantitative easing policy, under which it targeted sizeable excess reserves of commercial banks. In taking this step, the BoJ noted that the necessary conditions have been met: stable positive y/y core CPI inflation and expectations that this would continue. With this change, the central bank has returned to targeting the overnight call rate, which it expects will remain "effectively at zero" for the time being. As part of this change, the BoJ also announced a new framework for monetary policy, which includes defining price stability to be y/y CPI inflation between zero and two percent, a range that will be reviewed annually. The BoJ will also report on its monetary policy view in a semiannual report.

Fiscal Policy

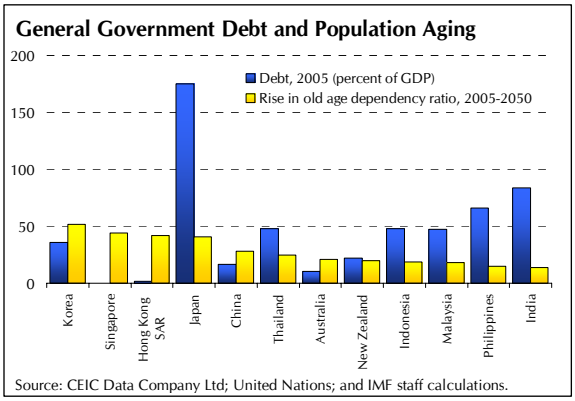
On the fiscal side, governments have been trying to improve their fiscal positions. Across the region, there are a variety of reasons for doing so.

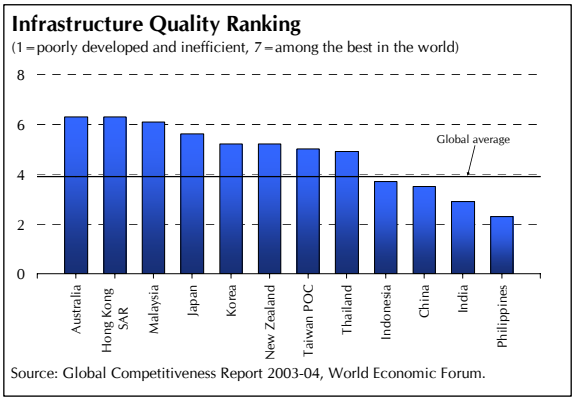
- First, some countries, such as India and the Philippines, have long had high debt levels, which they are seeking to address.

- Second, countries that were hit by the Asian crisis are trying to reverse the deterioration in fiscal positions that occurred in the late 1990s, initially because of the costs of repairing financial systems in the wake of the crisis and subsequently because of the lingering interest burden from the bonds issued at that time.

- Third, there is growing concern in the NIEs and industrial Asia over the need to create fiscal space for dealing with the costs of aging populations. In the NIEs, the old-age dependency ratio is projected to rise from 14 percent currently to 60 percent in 2050, led by Korea where it is expected to rise to 65 percent. In industrial Asia, the increase is expected to be more modest, but the aggregate obscures a sharp increase in Japan from an already-high level of 30 percent to an exceptionally-high 71 percent.[5]

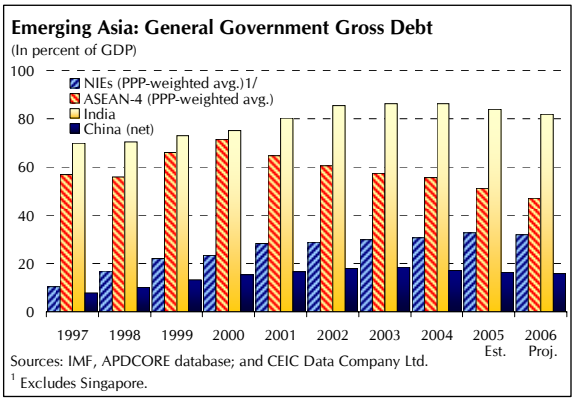
- Fourth, emerging Asia is facing large infrastructure needs, and increasing public sector saving is one way to create fiscal space for the required investment. The Asian Development Bank (ADB) estimates that developing countries in East Asia will need to spend more than a trillion U.S. dollars in the next five years, including on roads, water, communications, and power, to cope with rapidly expanding cities, rising populations, and the growing demands of the private sector. Although the ADB expects China to require 80 percent of this investment, other countries in emerging Asia also have large requirements, as shown by a ranking of infrastructure quality in the Global Competitiveness Report.



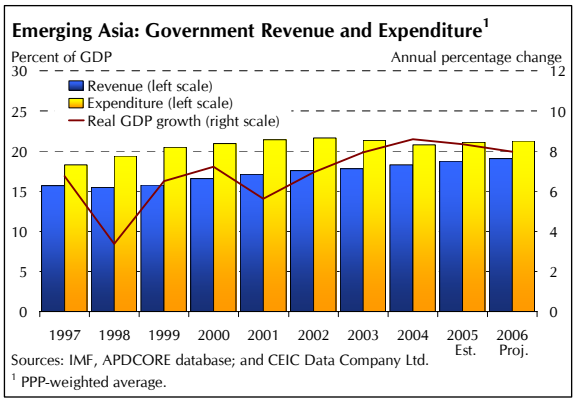


[5] The old-age dependency ratio is the ratio of the population aged 65 years or over to the population aged 15-64. These calculations are based on simple averages across economies of the change in old-age dependency ratio. The projected rise for the NIEs omits Taiwan Province of China, for which the United Nations do not publish population projections.

Governments in emerging Asia have made some progress in improving their fiscal positions in the past year. For this region as a whole, government debt was cut by about 1¾ percentage points to an estimated 37 percent of GDP. Most significantly, the average debt to GDP ratio in the ASEAN-4 countries is estimated to have fallen by 4½ percent in 2005, bringing the ratio down to 51 percent, significantly below its 1997 level. Similarly, the stock of general government debt in India is estimated to have fallen by 2½ percentage points to 84 percent of GDP last year. Against this, the average debt-to-GDP ratio for the NIEs continued to rise last year, and is now well above pre-crisis levels, but at an estimated 32 percent of GDP it remains relatively low.

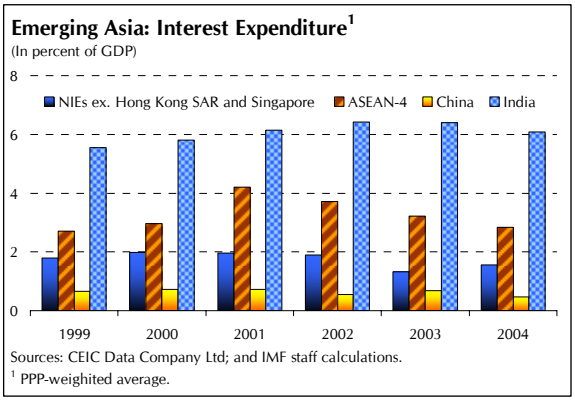


Fiscal consolidation in emerging Asia looks set to continue in 2006. The region's fiscal deficit is expected to decline to just below 2¼ percent of GDP, from just above that level last year, helping to bring debt to 35 percent of GDP. All of the major country groupings are expected to follow this trend: in the ASEAN-4, a small average deficit would reduce the debt ratio significantly to 47 percent of GDP, while in the NIEs, the average debt/GDP ratio is projected to decline for the first time since the Asian crisis. In India, despite rapid GDP growth, the debt of the general government is only projected to decline marginally in 2006/07, as the fiscal deficit is expected to remain sizeable, at above 7 percent of GDP.



The expected fiscal adjustment is driven largely by an increase in revenues, which is primarily due to new policy measures. This continues a trend of recent years, in which the revenue-to-GDP ratio has grown steadily. In India, a modest broadening of the tax base is planned, complementing an earlier drive to improve tax administration and the introduction last year of a VAT at the state level. In the ASEAN-4, the rise in the revenue to GDP ratio is expected to continue, reflecting measures such as an expansion of the tax base for VAT and a VAT rate hike in the Philippines. This continues a steady rise of the revenue to GDP ratio in the ASEAN-4, which has increased from 19½ percent in 2002 to an estimated 20¾ percent in 2005, reflecting a combination of additional tax measures, improved collection, and a revenue lift from high oil prices in the case of oil exporters (Indonesia and Malaysia). In the NIEs, revenue to GDP is expected to remain stable, while past increases in the revenue to GDP ratio were largely driven by improvements in tax administration, which also appears to be the case in China.

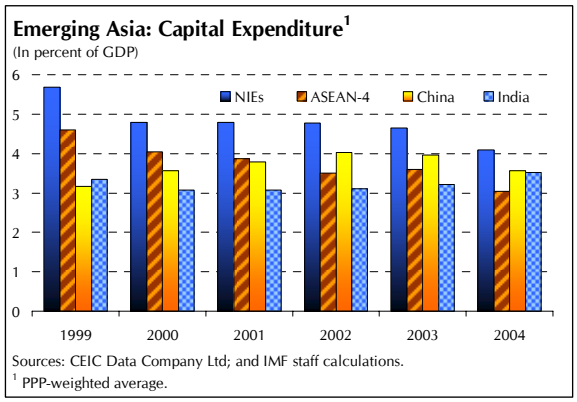
Meanwhile, spending is expected to remain stable, albeit with further marked shifts in allocations amongst expenditure categories. In recent years, interest payments have been shrinking, for several reasons including the



reduction in debt stocks in the ASEAN-4, a strengthening of regional currencies, and a general fall in global and domestic interest rates. In the NIEs, interest payments, already low by regional standards, have fallen steadily in importance, while in the ASEAN-4 countries they declined to 2¾ percent of GDP, after peaking in 2001 at 4¼ percent. These reductions have created space for an increase in spending on social welfare outlays, notably for pensions, health insurance, welfare for poor households and unemployment insurance payments.

Looking ahead, capital spending, which has contracted sharply in the ASEAN-4 and the NIEs in recent years, is expected to grow rapidly in the coming years. To meet the challenge of growing infrastructure needs, countries in emerging Asia are adopting different strategies:

- **One strategy is to boost infrastructure spending through the budget,** of which Thailand is one example. There, the authorities have announced new infrastructure spending, called "megaprojects," which will bring public investment to about 9½ percent of GDP over the medium term, around its historical norm but still short of its pre-crisis level of 12 percent. Spending will be centered on transportation, including mass transit, and communication, and will be financed mainly from the central budget, supplemented by domestic and foreign borrowing.



- **Another strategy is to pursue public-private partnerships (PPPs).** India is attempting to close its infrastructure gap through PPPs. To encourage further private sector involvement, the authorities have taken several steps, including setting up a special purpose vehicle, which would borrow domestically with a government guarantee to finance commercially viable projects with private participation. Korea last year began a second wave of PPPs, worth around $25 billion over the next 3-4 years, whereby the private sector builds social infrastructure projects (schools, barracks, prisons), which the government then leases for 20 to 30 years. Generally, PPPs can be catalytic in promoting infrastructure development, and can help shift the burden of risk from taxpayers to users. However, they have the disadvantage that potential risks to the government, including those related to guarantees and the commercial viability of projects, are not fully reflected in the fiscal accounts.

- **A third strategy, particularly important in countries where the fiscal position allows little flexibility, is to increase user charges.** For example, in the Philippines, meaningful tariff increases

have already been undertaken in the power sector, though increases are also needed in the water and sanitation sectors.

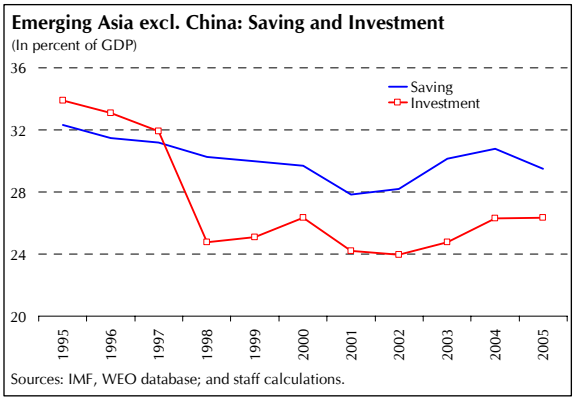
IV. ASIA'S EXTERNAL IMBALANCES

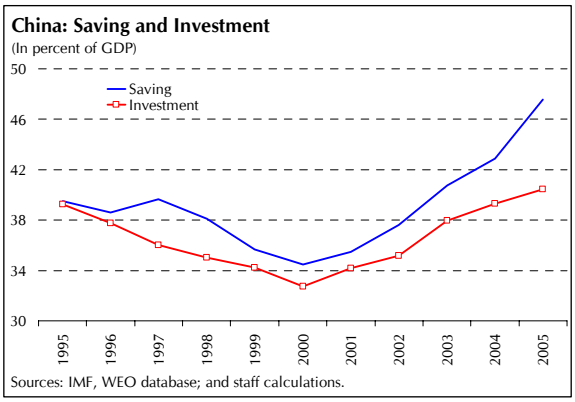
Over the last few years, the rise in global current account imbalances has cast a spotlight on Asia's external surpluses. These surpluses have been large and sustained, but they have also been evolving, and in many countries diminishing as of late. This chapter considers the outlook for Asia's external imbalances, and in particular, the role that macroeconomic and structural policies can play in helping to reduce them, notably by stimulating still-weak domestic demand.

Background and Outlook

Since the late 1990s, the region's current account balance has been in significant surplus—about 3 percent of GDP on average—reflecting an excess of saving over investment.[1] While a positive saving-investment gap has featured in nearly all countries in the region, the dynamics driving this gap have differed markedly across the region. In emerging Asia (excluding China), saving rates have been relatively stable, but investment rates collapsed in the late 1990s and have remained depressed since then. One reason why investment has continued to be sluggish is that investment risk in the region has increased, due primarily to a sharp rise in the volatility of Asia's growth (Chapter V).

In stark contrast to the rest of Asia, China's investment rate has been high and rising—reaching 40½ percent of GDP in 2005. But because the saving rate has risen even faster—to 47½ percent of GDP in 2005—China's saving-investment gap has widened considerably (Chapter VI). The steady rise in national saving can be attributed to a sharp increase in the saving rates of government and enterprises, which each rose by about 4 percentage points of GDP in the last five years. In the household sector, the saving rate has also risen (to about 30 percent of disposable income), in large part because the need for precautionary balances has grown sharply in the wake of significant cut backs in the provision of social services by state-owned enterprises.

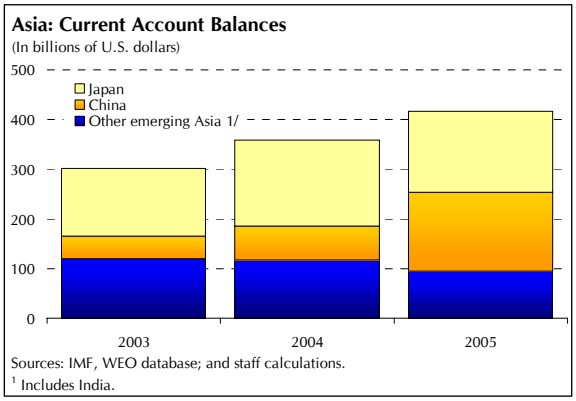




Since 2003, saving-investment balances have narrowed in most countries in the region. The main factor has been the oil price shock, which has hit household and corporate saving, though rising investment has also contributed to the narrowing of current account surpluses in some countries.

[1] Chapter III in the August 2005 Asia-Pacific Regional Outlook contains a detailed discussion of Asia's saving and investment patterns.

- **In emerging Asia (excluding China), the current account surplus narrowed to 3½ percent of GDP in 2005, from over 5 percent of GDP in 2003.** The decline was somewhat larger (nearly 2½ percentage points of GDP) in the ASEAN-4 economies, on account of their weaker export performance. But current account surpluses have been falling in the NIEs as well (by about 1 percentage point of GDP on average), and especially in India, where a swing of 3½ percentage points of GDP has returned the current account to deficit, amounting to 1¾ percent of GDP in 2005.



- **Japan's current account surplus narrowed modestly to 3½ percent of GDP in 2005, after rising marginally in 2004.**

- **China presents a notable exception to this regional trend, with its current account surplus soaring as exports have boomed.** The current account surplus jumped to just over 7 percent of GDP in 2005 from 2¾ percent of GDP in 2003.

Over the medium term, Asia's external surpluses should decline further, but only by modest amounts under current policies. In Japan, the current account surplus is expected to narrow by about ¾ percentage point of GDP, to 3 percent of GDP by 2011. While investment is expected to recover gradually, saving is forecast to remain stable, with rising corporate saving (reflecting improving business profitability) offsetting declining household saving (reflecting an aging society). For emerging Asia, IMF staff project the current account surplus to decline by about 1¼ percentage points of GDP by 2011, to about 1¾ percent of GDP. As investment continues its recovery, its share in GDP is forecast to rise by 2¼ percentage points (though it will remain several percentage points below its pre-crisis level). But this will be partly offset by an increase in government saving as fiscal consolidation continues, increasing the national saving rate by 1 percentage point of GDP over the medium term.

China's current account surplus is also expected to decline modestly over the medium term. Under baseline assumptions, it is forecast to narrow by 1 percentage point of GDP by 2011, to about 6 percent of GDP. The persistence of large current account surpluses reflects expectations that saving will remain high, at about 49 percent of GDP, while investment will rise modestly, to about 43 percent of GDP. Beyond 2011, however, the rapid aging of China's population is expected to have a significant negative impact on the current account balance. While model estimates of this impact vary considerably, recent IMF research suggests that it could be on the order of 3 percentage points of GDP by 2050.[2]

What Role for Economic Policies?

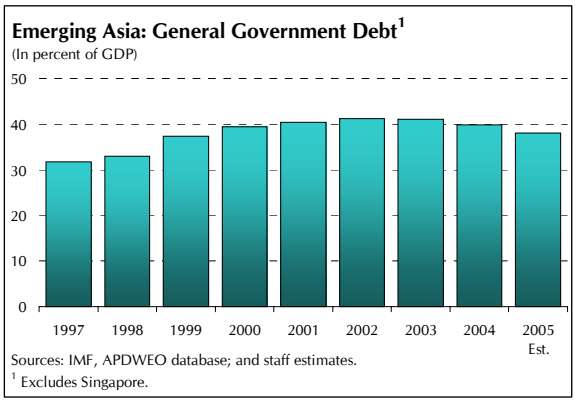
The discussion above suggests that if Asia's external imbalances are to be reduced more rapidly than forecast under baseline assumptions, policy action is needed on two

[2] World Economic Outlook (September 2004, p. 149). See also P. Heller and S. Symansky (IMF Working Paper, WP/97/136) and R. Brooks (IMF Staff Papers Vol. 50, No. 2).

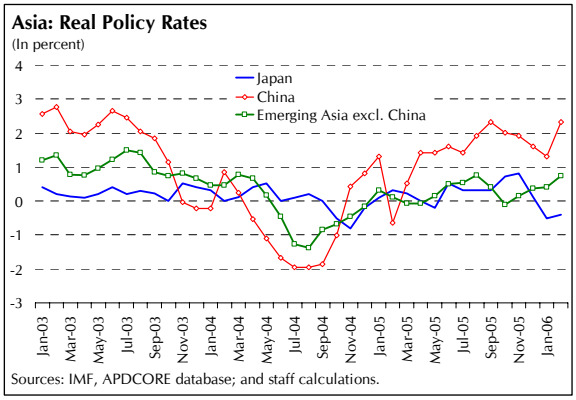
fronts. In emerging Asia and Japan, measures are called for to bolster the recovery in investment, while in China, measures are needed to encourage private consumption. This section assesses the steps that have already been taken by regional policymakers towards meeting these objectives, their plans for the future, and what more could be done.

Fiscal and monetary policies

In most of the region (outside China and India), policymakers have been attempting to encourage domestic demand. However, the scope to do this has been constrained by high public debt levels. The recapitalization of banking systems in the wake of the 1997 crisis had caused public debt to increase sharply in several countries, while in others, public debt has been high for many years already. As a result, fiscal consolidation has remained a policy imperative for most economies in the region.

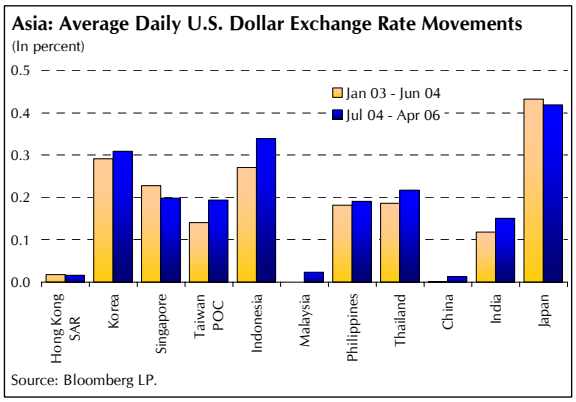


Given the limitations on fiscal policy, the burden of stimulating aggregate demand has fallen on monetary policy. With inflationary pressures generally remaining subdued, regional central banks were able to relax monetary policy significantly, reducing policy rates to historically low levels (in some cases below zero in real terms), which in turn resulted in an expansion of the monetary base. However, despite the monetary stimulus, aggregate demand has recovered only moderately.



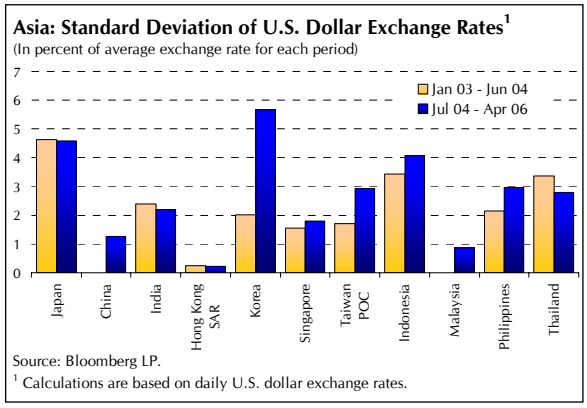
Exchange rate policy

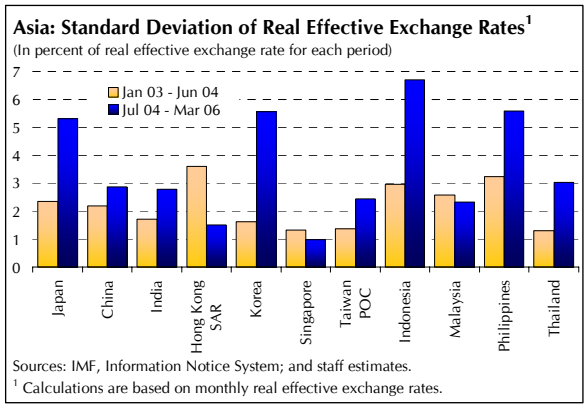
Since 2004, exchange rates have become more flexible in most Asian economies. A statistical comparison of exchange rate behavior shows that in most countries, the daily range of movement vis-à-vis the U.S. dollar has increased since mid-2004. The fluctuations over time have risen as well (as evidenced by the rise in the standard deviation of exchange rates), especially for the Korean won and the Taiwan dollar. In real effective exchange rate terms, the flexibility of Asian exchange rates has increased by even more, with most currencies showing a significant rise (as measured by the standard deviation of monthly rates).



Several factors have contributed to increased exchange rate flexibility in the region. In March 2004, Japan's cessation of

intervention signaled the potential for yen appreciation.[3] Subsequently, the renminbi's (and the ringgit's) move to a managed float in July 2005 further eased the transition of other Asian currencies to greater flexibility, by dampening speculative capital flows that had been motivated by expectations that these currencies would appreciate. Below, we consider in greater detail how exchange rate policy has varied across the region.





Since the initial 2.1 percent revaluation in July 2005, the renminbi has continued to be tightly managed, and has appreciated by only about 1¼ percent against the U.S. dollar. In recent weeks, however, there have been some signs of increasing movements in the renminbi-dollar exchange rate, although daily fluctuations have remained well within the +/- 0.3 percent band. Meanwhile, in real effective terms the renminbi has appreciated by about 4¼ percent, mirroring the appreciation of the U.S. dollar against other currencies.

The Chinese authorities have taken further measures to liberalize and develop the foreign exchange market, which should contribute to greater flexibility going forward. These measures include increasing the number of financial institutions licensed to participate in the interbank foreign exchange market (including foreign banks) and allowing trading of forward foreign exchange contracts to foster the development of instruments to hedge foreign exchange risk. In early January 2006, over-the-counter trading of spot foreign exchange was introduced with 13 banks designated as market makers. The centralized spot trading system remains operative, but the central parity rate (against the U.S. dollar) is now based on a weighted average of interbank market transactions. Partially because of these measures, the exchange market has shown signs of increased flexibility in recent months.

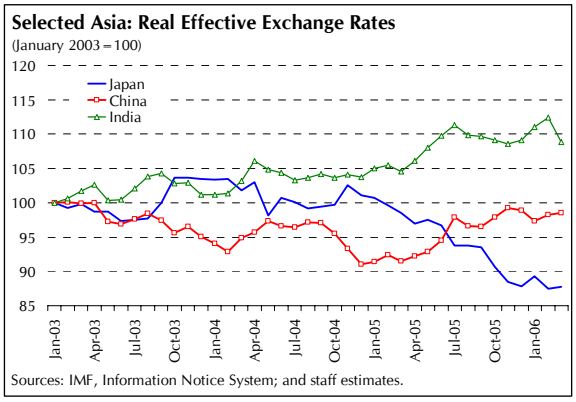
While these are encouraging signs, the persistence of China's large current account surplus suggests that still greater renminbi flexibility is warranted. The authorities should utilize more fully the flexibility available under the new exchange rate arrangement as greater exchange rate flexibility continues to be in China's best interest. In the near-term, this would imply an appreciation in the currency, which, in turn, could help in rebalancing growth by boosting households' purchasing power. Given the strong state of China's economy, currency appreciation should not create major

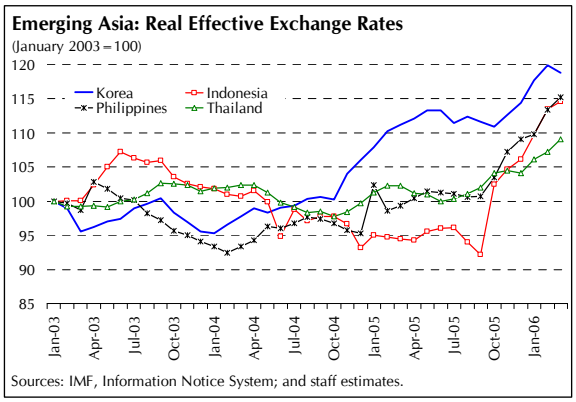
[3] During 2003 and early 2004, intervention (at times substantial) was an important tool in Japan's fight against deflation. By containing appreciation pressures on the yen, the risk of importing deflation was reduced.

economic disruptions. Over the longer horizon, appreciation should improve investment decisions and thereby further contribute to rebalancing growth towards consumption. More generally, greater exchange rate flexibility would give China more control over its monetary policy, and increase the economy's resilience to external and domestic shocks.

The Malaysian ringgit also exited its peg on July 21, 2005. However, as the central bank has continued to intervene heavily in the foreign exchange market, the regime remains a *de facto* peg. The ringgit has only appreciated by 2¼ percent against the U.S. dollar since the regime change. While a reversal of short-term capital flows in late 2005 had temporarily put downward pressure on the ringgit, various indicators (including the substantial current account surplus) suggest that the currency remains undervalued. Greater flexibility will be needed to broaden Malaysia's policy options in maintaining price stability, promoting economic efficiency, and managing economic shocks and volatile capital flows.

Exchange rates in the rest of emerging Asia have shown greater flexibility. On average, bilateral U.S. dollar exchange rates have appreciated by about 5½ percent since 2003.[4] The appreciation has been significantly greater in real effective terms over the same period—about 11 percent on average—and more varied. In some economies, the real effective appreciation has been quite large—the Korean won and the Philippine peso have strengthened by about 24 and 22 percent, respectively—while in others, such as Hong Kong SAR and Taiwan Province of China, effective exchange rates have actually depreciated modestly.





In Japan, the exchange rate has shown considerable flexibility in the recent period. While the yen initially appreciated against the U.S. dollar following the end of intervention in March 2004, the steady rise in U.S. interest rates since then caused the dollar-yen interest rate differential to widen, thereby stimulating capital outflows which caused the yen to weaken.

Looking ahead, further exchange rate appreciation in Asia will play an important role in resolving global imbalances. During 2005, pressures for exchange rate appreciation had eased considerably as emerging Asia's external surpluses—both in the current and the capital account—moderated. As noted in Chapter II, this

[4] This average excludes China and Malaysia, as well as Hong Kong SAR (which maintains an exchange rate peg). Since July 2005, the average appreciation has been about 4 percent.

reduction in appreciation pressures was reflected in a sharp slowdown in foreign reserve accumulation across the region, with the notable exception of China. More recently, however, there have been two sharp spikes in capital inflows, which have triggered renewed rounds of intervention. In January 2006, official reserves in emerging Asia (excluding China) increased by $25 billion—significantly more than the $3½ billion monthly average accumulation in 2005 (and the $1½ billion accumulation in January 2005). China's official reserves also increased significantly, by $26¼ billion. Then in April, another wave of equity inflows put further pressure on regional exchange markets. These episodes suggests that most Asian economies remain wary of allowing their currencies to be fully market-determined.

While further currency appreciation remains critical, appreciation on its own will not be sufficient to ensure an orderly adjustment. IMF staff have performed a simulation of the possible economic effects of an exogenous 10 percent appreciation of the renminbi, accompanied by a 5 percent appreciation of the currencies in the rest of Asia.[5] The results indicate that such an appreciation would have a relatively small impact on Asia's current account surplus in the near term—reducing it by less than ½ percentage point of GDP—in part because of the knock-on effects of appreciation on output and incomes (lowering both). Over the longer term, other analyses suggest that the current account adjustment would likely be larger, reflecting adjustments in the economy to the change in relative prices.[6] While the results are sensitive to a range of assumptions, they illustrate the point that exchange rate appreciation will need to be accompanied by a strengthening of domestic demand in Asia to ensure that an orderly adjustment takes place. It should also be noted that current account positions, and hence the need for adjustment, differs significantly across Asian economies.

Structural policies

Structural reforms are expected to play a critical role in bringing about a rebalancing of domestic demand. Many of the structural reforms already undertaken in the region since the mid-1990s are improving the conditions for domestic demand growth, with reform in the banking sector of particular note. But further efforts are needed to strengthen capital markets and improve the investment climate, in order to compensate for the risks that have been deterring investment. In this section, we look at a few recent examples of such structural reforms.

Stimulating investment in emerging Asia

To bolster investment, reforms need to advance on two broad fronts. First, the financial sector needs to be developed further, to promote its ability to transfer risk from the corporate sector to the wider investing public. Second, the investment climate needs to be improved, to reduce the costs of doing business in Asia—and increase the rate of return on investment.

Across the region, wide-ranging banking sector reforms are already strengthening banks' ability to intermediate savings and transfer investment risk. In China, for

[5] Annex III in the August 2005 Asia-Pacific Regional Outlook contains a detailed analysis of the impact of Asian currency appreciation on regional current account balances.

[6] See the September 2005 World Economic Outlook for an analysis of the adjustment of external imbalances and exchange rates over a longer time horizon.

example, considerable progress has been made in improving bank financial positions and operations. Three of the large state-owned commercial banks have already been recapitalized and are being opened to foreign ownership. By selling ownership stakes to foreign strategic investors, the authorities are trying to improve governance and accelerate the transfer of technology and management practices. Reform efforts have also focused on smaller banking institutions, in particular the rural credit cooperatives, to improve the delivery of financial services to credit-constrained groups. In the area of bank supervision, steps have been taken to strengthen on-site examinations and monitoring of large exposures and connected lending.

Meanwhile, efforts to broaden and deepen capital markets are also underway. The Asian Bond Market Initiatives are an important regional effort that aims to promote the development of local and regional bond markets.[7] A key objective is to reduce countries' exposure to maturity and exchange rate risks and "sudden stops" in access to international capital markets. Additional benefits envisaged are lower reliance on domestic bank lending and improved corporate governance. Under the first phase, foreign exchange reserves of participating economies have been used to acquire U.S. dollar-denominated Asian sovereign bonds. Under the second phase, the objective is to promote greater regional harmonization of bond market infrastructure and legal, regulatory, and tax arrangements. Two additional bond funds were launched in June 2005, with the aim of promoting local-currency bond markets.

Recently, Korea has announced additional details of its plan to develop Seoul into a Northeast Asian financial hub. To spur the development of the foreign exchange market, regulations were eased on foreign exchange transactions earlier this year, including on won-denominated borrowings and bond issues by non-residents. A new law for the integration of capital markets is expected to be submitted to parliament later this year. The law will allow the establishment of financial investment companies (i.e, U.S.-style investment banks), expand the scope of financial products, and encourage rationalization and competition in the financial services market. The government also plans to unveil further deregulatory measures for the insurance sector. In the corporate sphere, a new unified insolvency law, due to come into effect in April 2006, will help to accelerate corporate restructuring, thereby freeing up resources for new investment.

At the same time as risk is reallocated, the investment climate in Asia is being strengthened. Notable efforts are being made in three areas: trade barriers, regulatory burdens, and infrastructure.

On the trade front, the fact that Asian economies are highly integrated into a regional supply chain—with final goods often destined for export outside the region—makes intra-regional trade tariffs act like a cascading tax on the final output. Therefore, regional trade agreements can help advance the process of integration by reducing costs. In the last five years, 23 free-trade agreements have entered into force in the region; about 30 are currently under negotiation.[8] However, the proliferation of

[7] Box 9 discusses regional financial sector initiatives.

[8] These include the impending ASEAN-Korea free-trade agreement, and bilateral (continued)

regional and bilateral trade agreements risks creating an "Asian noodle bowl effect", especially if there are overlapping agreements among members of different free-trade agreements. To the extent that this raises barriers to multilateral liberalization, trade and investment may be diverted.[9]

To address regulatory burdens and other hurdles to investment, Indonesia recently launched a comprehensive Investment Climate Policy Package. The policy initiatives announced in March 2006 cover all aspects of the investment process, including customs, taxation, labor practices, and increasing the competitiveness of small and medium scale enterprise and cooperatives. Aside from increasing incentives and facilities for investment, as well as reducing the amount of time required for investment and business approvals, the package also aims to increase synchronization between the central and regional governments. Until now, the lack of synchronization has contributed to a lack of legal certainty and a significant expansion of the government approval process. The package should complement other government initiatives aimed at accelerating infrastructure investment, improving access to financing and lowering the cost of finance.

With regard to infrastructure, many countries in the region have announced ambitious plans to ramp up both public and private investment.[10] While infrastructure needs in Asia are certainly great—the ADB estimates that up to $1 trillion in new investment is needed by 2010—public investment should be targeted carefully, to ensure that it does not crowd out private investment or have deleterious macroeconomic consequences where implementation capacity is limited.

Bolstering household consumption in China

With regard to China, further reform efforts are needed on a number of fronts to encourage household consumption. As discussed in Chapter VI, the focus should be on reforms that stimulate a permanent increase in consumption and make GDP growth more balanced over the medium term. Reform of fiscal relations between the center and the local government will be important to improve the delivery of social services and reduce the need for precautionary savings, thereby enhancing the benefit of planned increases in social expenditure. China's ongoing capital market reforms can also contribute toward boosting consumption by enabling households to earn higher returns on alternative investment vehicles and thereby reduce the reliance of their consumption decisions on disposable wage income. The development of consumer lending products (including mortgages) and of insurance instruments would also have a similar impact.

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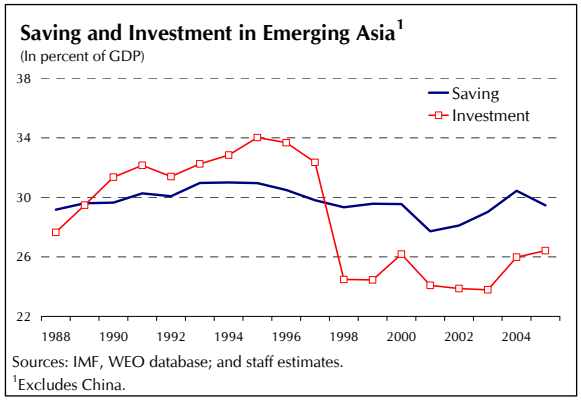
agreements between Japan and Indonesia, the Philippines, and Thailand.

[9] See Box 10 for an analysis of whether Asian regional trade agreements have been trade-creating or trade-diverting.

[10] Recent initiatives on this front are discussed in Chapter III.

V. ASIA'S INVESTMENT DECLINE

Lower investment compared with the pre-crisis period is a bit of a puzzle. To a certain extent it reflects an appropriate decline in investment (especially in real estate), making a return to pre-crisis levels of investment neither appropriate nor necessary. But even taking this into account, the decline in investment seems excessive. And nearly a decade after the Asian crisis, the decline can no longer be attributed to transitional difficulties such as the need for corporations to restructure. Rather, there seems to be some evidence that corporations are responding to increased risks, notably to the higher volatility of exports and output.



An active debate surrounds whether the emergence of large current-account surpluses in Asia since the 1997 financial crisis reflects an investment slump or a savings glut.[1] A simple examination of the data suggests that it is the former: except in China, where both saving and investment have been rising, saving has been broadly stable whereas investment has declined sharply by about 9½ percentage points of GDP compared to the pre-crisis peak, and has remained near post-crisis lows. The underlying reality is of course more complex, and both the "investment slump" and "savings glut" points of view have adherents.[2]

This chapter examines the evidence in favor of an investment slump. In particular, it analyzes the investment decline and reviews possible underlying causes. It also discusses the outlook for investment, and offers a few tentative policy implications.

The evidence suggests that continued sound macroeconomic policies, along with microeconomic policies aimed at addressing structural sources of risk, could help to improve the investment environment and thereby support capital spending. At the same time, if heightened risk has supported precautionary savings, such steps could also lead households and corporations to reduce saving. Thus, from both the saving and investment sides, addressing factors that may have restrained investment could contribute to reducing Asia's current-account imbalance.

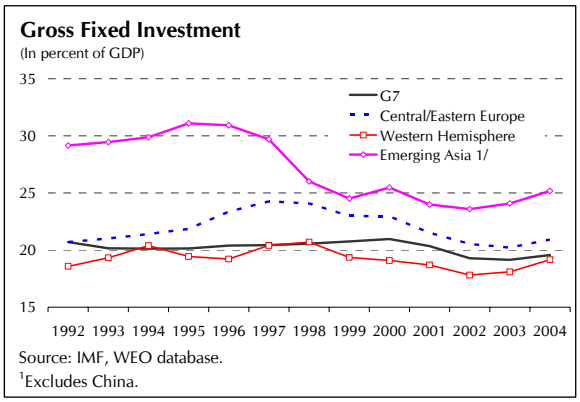
Aggregate Saving and Investment

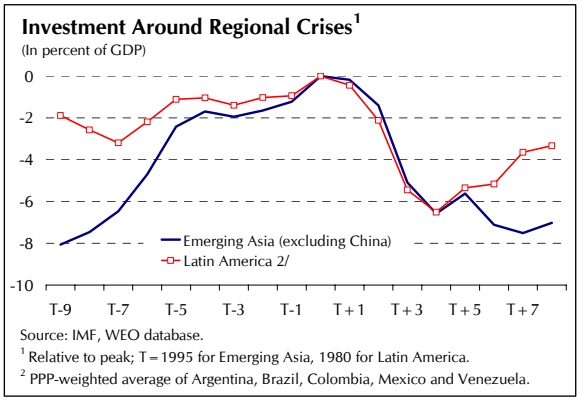
Emerging Asia's investment decline has been prolonged, sizeable, and broad-based, reflecting a fall in private investment. For example, comparing 1992–96 with 2000–04, private investment declined by between 5 to 18 percentage points of GDP in Hong Kong SAR, Korea, Singapore, Malaysia, and Thailand. By contrast, public investment has in general been relatively stable.

[1] In this chapter, "emerging Asia" comprises Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan Province of China, and Thailand (that is, it excludes *inter alia* China).

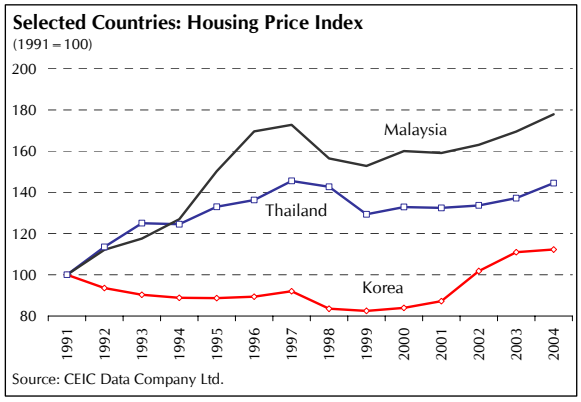
[2] Eichengreen (2006) surveys the debate surrounding the emergence of global imbalances.

Asia's investment decline has been severe compared with those in other regions during the past 15 years. At various times since the early 1990s, Latin America, central and eastern Europe, and the G-7 countries as a group have experienced comparatively mild investment declines. Of course, during this time period, none of those regions underwent a crisis as disruptive as Asia's; indeed, the Asian decline looks more similar to the decline in Latin America during the 1980s debt crisis. While investment recovered more rapidly in Latin America than in Asia, this mainly reflected an unsustainable inflationary expansion in Brazil; in Argentina, Mexico, and Colombia, investment remained weak into the 1990s.

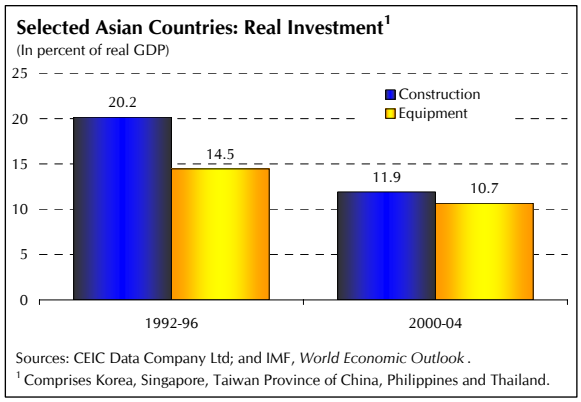




The investment downturn in Asia partly reflected a collapse in real estate spending following a boom. By the mid-1990s, signs of overheating in construction were evident in several countries, with occupancy rates falling, real estate lending expanding rapidly, and property prices buoyant. Starting in 1997, however, construction investment fell quite sharply in these countries, declining for example by 10 percentage points of GDP in Thailand. Real estate prices plummeted in tandem, as the boom in real-estate lending turned into a contraction.

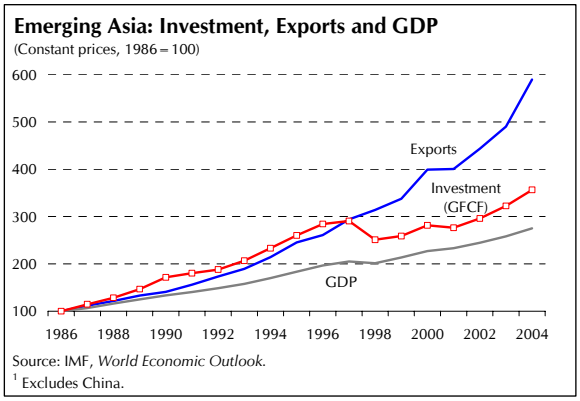


At the same time, equipment investment was also an important source of both the contraction during the crisis and the post-crisis sluggishness in various countries, particularly in Singapore, Thailand, Korea, and the Philippines. In Thailand, for example, equipment and construction were equally responsible for the post-crisis fall in investment. In Korea, facilities investment fell by half from its 1996 peak of 14 percent of GDP and has remained sluggish in recent years, whereas construction investment has recently been staging a modest recovery.

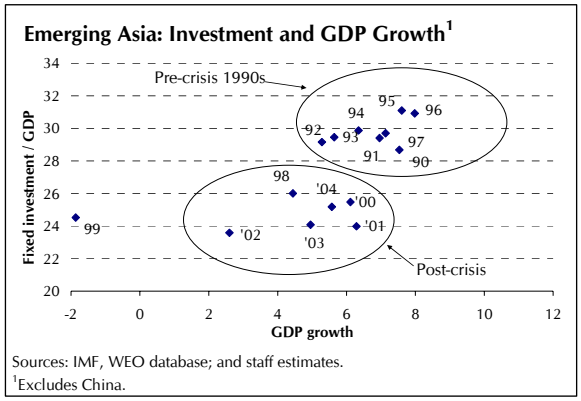


It is difficult, if not impossible, to say whether investment is now at the "right" level. The bursting of real-estate price bubbles, and more generally the pruning of overinvestment, has undoubtedly brought investment down to more rational levels in several countries (consistent with the hypothesis of overinvestment, the run-up before the crisis was rather sharp in Asia, even compared with that in Latin America). In addition, while the investment rate in Asia is below pre-crisis levels, it has remained above those in other regions. Finally, a fall in the relative price of investment goods, and an improvement in their efficiency, could have reduced capital investment—though this effect appears to be quite small. (Indeed, the ratio of equipment spending to GDP has fallen by almost 4 percentage points of GDP in real terms since the crisis (Box 11).)

That said, investment does seem to be lower than macroeconomic fundamentals would suggest. For example, the relationship between exports and investment, and also between profits and investment, seems to have broken down since the crisis. The gap is particularly striking in the past few years: exports and profits have surged, but investment has not followed. In addition, the correlation between the investment ratio and lagged growth—a type of simple "accelerator" relationship—fell sharply following the crisis. Meanwhile, with Asia's ICOR now around 4.7 percent, trend growth of (say) 6 percent would imply an investment/GDP ratio of roughly 28 percent, a few percentage points above levels prevailing in this decade.



Source: IMF, *World Economic Outlook*.
[1] Excludes China.



Sources: IMF, WEO database; and staff estimates.
[1]Excludes China.

Recent research studies also find that investment is lower than expected. Chinn and Ito (2005) find that investment in emerging Asia excluding China is much lower than predicted by their empirical model, especially in recent years (saving is also lower than predicted). Eichengreen (2006) finds that the sharp fall in investment cannot be explained by changes in fundamentals. In the IMF World Economic Outlook (2005, Chapter II, page 106), an empirical model fails to predict the drop in investment in emerging markets, and particularly in East Asia. In addition, IMF (2005) presents tentative evidence that investment rates in Asian countries are below long run steady state levels, even in countries where the capital/output ratio is below the steady state level and thus (in theory) investment should exceed steady state rates. In sum, the level of investment presents a puzzle.

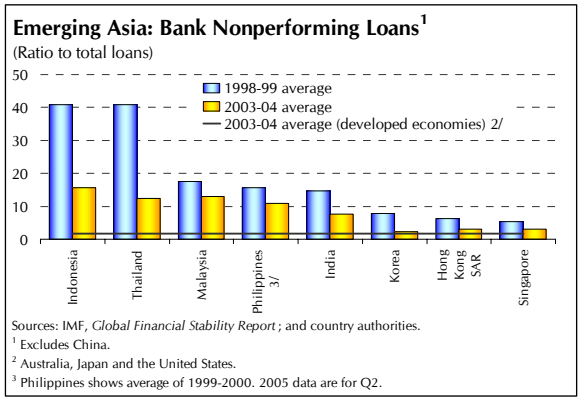
What Might Have Caused the Investment Decline?

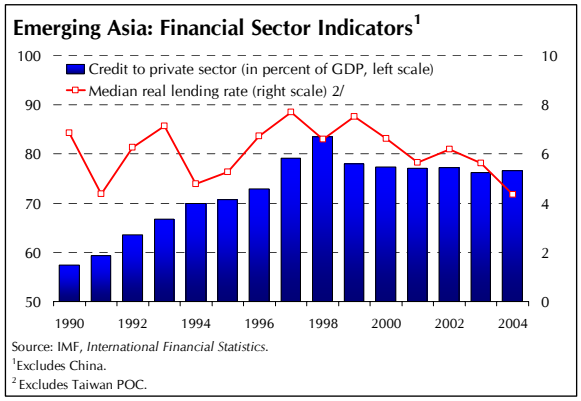
This section examines several possible reasons why investment has been lower than expected. In particular, it considers whether financial and corporate sector restructuring, competition from China, and a riskier

investment environment may be adversely affecting investment in Asia. The increase in risk seems pervasive, whereas the other factors are more country-specific.

Financial and Corporate Sector Restructuring

Financial and corporate-sector stresses and subsequent restructuring aggravated the sharp decline in investment following the financial crisis, but these factors no longer seem to restrain investment. In the financial sector, the sharp deterioration in banking-system solvency and liquidity in the wake of the crisis caused banks to rein in credit, with sizeable repercussions for investment. The impact was particularly severe because corporate bond markets—which serve as an important backstop to bank lending during periods of financial stress—were underdeveloped. More recently, banking system performance has improved significantly, with nonperforming loan ratios down substantially (albeit generally above developed-country levels), regulatory capital ratios higher than before, and return on assets improved.[3] Finally, in some countries a recovery in real estate prices has helped to take pressure off bank balance sheets. Accordingly, financial system weaknesses are much less of a constraint on investment than in the past. While credit to the private sector as a share of GDP has stagnated since the crisis,[4] low lending rates suggest that this reflects weak corporate demand for funds more than difficulties in banking systems.[5] Indeed, consumer lending has been expanding sharply in recent years (Box 5).





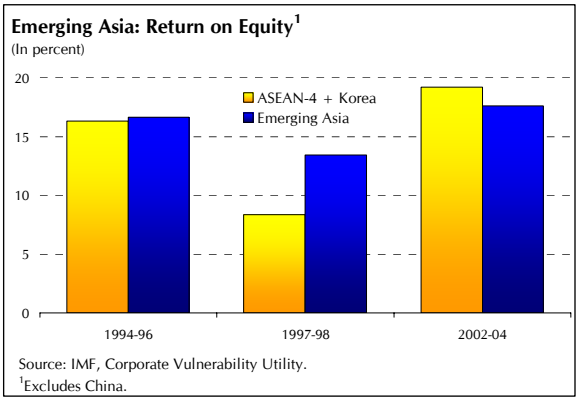
In the corporate sector, balance sheets and profits have improved considerably since the crisis.[6] During the crisis, leverage soared (partly due to currency depreciation); interest

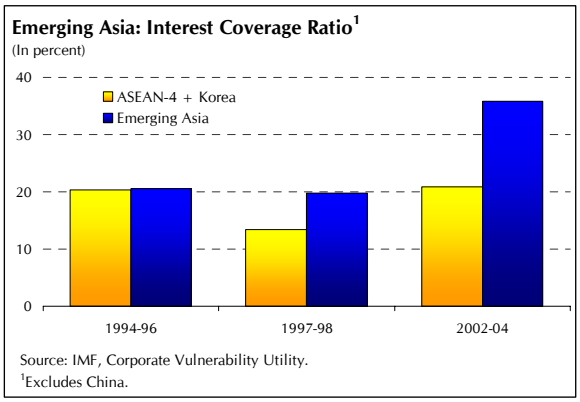
[3] These data are subject to a number of important limitations, including a lack of coverage of the pre-crisis period and comparability across countries (reflecting differences in accounting and regulatory practices). In addition, nonperforming loan figures are on a gross basis (NPLs net of provisioning are substantially lower in some cases). Finally, the financial and corporate sector figures may be subject to survivor bias—the improvements in financial health may be due in part to the liquidation of the worst-performing entities.

[4] The 1998 spike may reflect sharp exchange rate depreciation that inflated the local currency value of foreign-currency loans.

[5] Given the expansion of household lending in some countries, corporate borrowing may even have posted a modest decline.

[6] Korea is examined alongside the ASEAN-4 in the figure because corporate-sector problems were important in Korea's financial crisis.





coverage and return on equity plunged.[7] Subsequently, firms retrenched investment sharply as they rebuilt their balance sheets and restructured their operations. In recent years, however, leverage has returned to around pre-crisis levels, interest coverage has risen to the highest levels in over a decade, and profitability has returned to around pre-crisis levels—indeed, for the ASEAN-4 plus Korea, it significantly exceeds such levels (although for these countries, leverage remains higher than in the rest of the region, while interest coverage remains lower). These data suggest that emerging Asian corporates have adopted a fairly conservative financial stance, perhaps due to the aforementioned increased risk in the environment (this conservative financial stance could partly explain the low level of credit spreads).[8] It could also reflect corporate governance considerations; that is, low leverage and high liquidity may reflect preparedness to buy back shares or take other measures to fend off the increased risk of takeovers. In sum, with corporate balance sheets at least as strong as in the early 1990s, corporate-sector weaknesses seem unlikely to be responsible for holding back investment at a regional level.

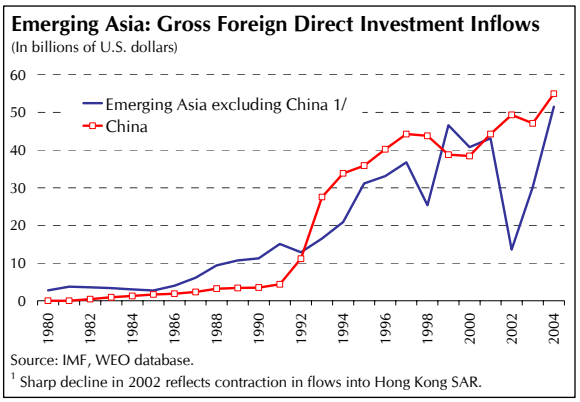
This broad picture masks pockets of weakness in the corporate sector, however. For example, the data analyzed above include only listed firms, and thus exclude many small and medium-sized enterprises (SMEs) whose weaknesses have been an important drag on investment in some countries—most notably Korea (see Chapter III of the August 2005 *Asia- Pacific Regional Outlook*). In addition, the bursting of the global IT bubble early in this decade had a serious adverse effect on technology firms, at the same time that they faced heightened global competition. Relatedly, China may be drawing investment away from other countries in emerging Asia, a topic that is discussed next.

Competition from China

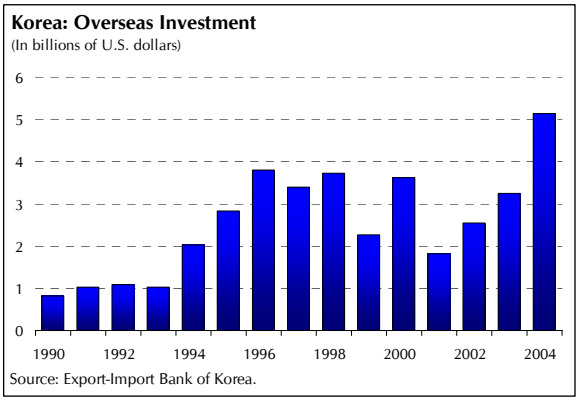
China's considerable success in attracting FDI has raised the question of whether this success might be coming at the expense of other countries. Direct investment flows into China have risen by around tenfold since the early 1990s, making it one of the world's top destinations for FDI.

[7] Interest coverage is the ratio of earnings before interest and taxes to interest expenses.

[8] Indeed, corporate savings have risen in G-7 countries in the recent period, in part for similar reasons (see *World Economic Outlook April 2006*).



There is evidence of investment diversion in selected countries and industries. For example, in Korea, overseas net investment increased by 42 percent annually during 2002–04; during this period, almost 43 percent of overseas investment was directed towards China. SMEs accounted for around 40 percent of overseas investment, double the share of the early 1990s. According to research by the Korea Development Institute, SMEs tend to reduce their domestic investment after making overseas investment, while large companies increase both together. With a rising share of overseas investment undertaken by SMEs, the increase in Korean firms' overseas investment in China could thus have crowded out some domestic investment. In the electronics sector, investment in fabrication plants has risen sharply in China at the same time that it has fallen in Southeast Asia (Box 3).



That said, recent formal studies have been unable to find systematic evidence that China is diverting FDI from other Asian countries.[9] Indeed, after controlling for other drivers, some studies find that inflows of FDI to most Asian countries seem to be *positively* related to flows into China, suggesting complementarity, albeit to a varying degree among recipient countries. In other words, it appears that the growth both in China's domestic market and in its exports has created demand for products from other countries, and thus new opportunities for trade and investment—including new opportunities for other countries to invest in order to be part of China's expanding production chain, and these opportunities may have outweighed the diversion of investment in other industries. These results, it should be noted, do not necessarily refute claims that China is diverting investment from emerging Asia, as FDI is generally small relative to domestic investment; that said, FDI should be a barometer of investment more broadly, if foreign and domestic investment respond to the same incentives.

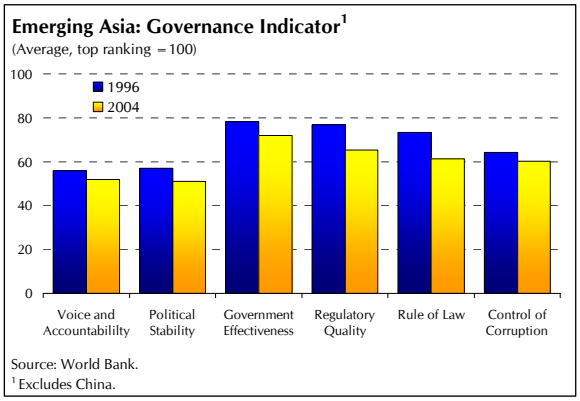
Investment Risk

So, if restructuring and diversion of investment to China do not seem to explain the low level of investment, what does? One possibility is an increase in risk. Modern microeconomic investment theories give uncertainty a central role, proving that greater uncertainty will lead agents to put off investing (Dixit and Pindyck (1994)). Greater risk could also have led agents to divert

[9] Chantasasawat and others (2004), Mercereau (2005), and Eichengreen and Tong (2005). The first two papers examine total inflows (including from other Asian countries); the latter examines flows from Europe, North America, Australia, New Zealand, and South Korea.

investment to lower-risk countries (a factor not captured in FDI regressions).

At first blush, however, the hypothesis of greater risk seems counterintuitive. After all, since the crisis exchange rate regimes have been made more flexible, banking and corporate sectors have been strengthened, and large stocks of foreign exchange reserves have been accumulated, all of which have made Asia less vulnerable to crisis. Yet, several measures show that perceived risks have increased, not declined. For example, the perceived ranking of the governance environment is weaker compared with the pre-crisis period. Along six different dimensions—voice and accountability, political stability, government effectiveness, regulatory quality, the rule of law, and control of corruption—emerging Asia ranked lower in 2004 than in 1996. What could have caused this deterioration in investment sentiment? The answer is unclear. Investor perceptions may, to some extent, be more realistic than they were prior to the Asian financial crisis. Investors were likely underestimating investment risks prior to the crisis, and moreover, with the withdrawal of government guarantees and explicit cross-guarantees, they appropriately bear more of those risks. But whatever the underlying reasons, the deterioration in perceptions is likely to have had a real impact: for example, governance is a significant determinant of FDI.[10]



Moreover, the perceived increase in risk is not necessarily just an artifact of the crisis. It also reflects changes in the structure of trade and production, which are apt to persist in the future. This is because with the shift of lower value-added manufacturing activities in sectors such as textiles to China, other Asian countries have shifted production towards higher-end electronics markets, one of the most volatile sectors of the global economy.

Emerging Asia : Product Shares in Exports[1]

(In percent)

	Electrical machinery	Clothes and shoes
1992-1996	20.1	9.8
2000-2004	27.0	6.0

Source: World Integrated Trade Solution Database.

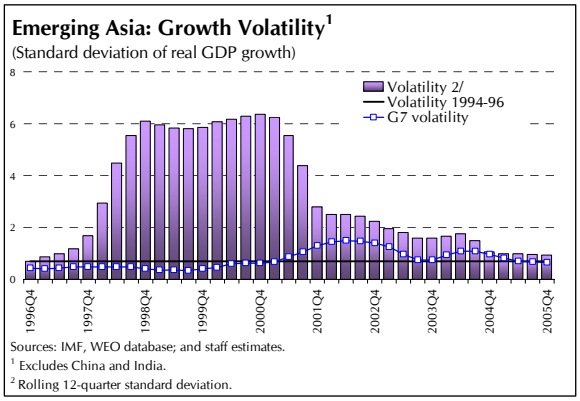
[1] Excludes China.

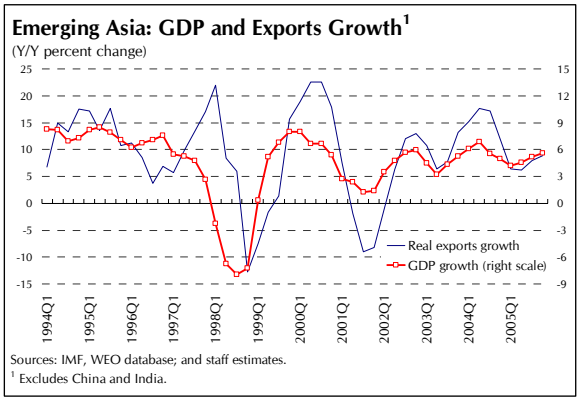
In fact, the volatility of output growth has been elevated since 1997, only very recently receding to slightly above pre-crisis levels. (G-7 output variability has also risen modestly, although it remains below 1980s peaks, reflecting the documented "great moderation" in volatility.[11]) This partly reflects the weakness of domestic demand. Traditionally, export booms have triggered investment surges, with the lag between the two allowing domestic demand to play a countercyclical role, surging just as export booms have begun to fade. But with the aforementioned breakdown in the

[10] See Mercereau (2005).

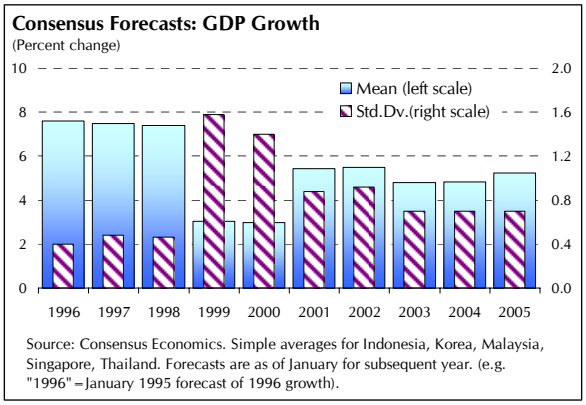
[11] Bernanke (2004) discusses the "great moderation."

relationship between exports and investment, domestic demand no longer plays this role, leaving countries more exposed to fluctuations in global demand. Consistent with this notion, the volatility of exports has broadly tracked that of output, rising sharply in the late 1990s and only recently declining to around mid-1990s levels. At the same time, exports seem to have become more procyclical, with exports growth closely tracking the growth of overall GDP in the region.





Unsurprisingly, the risks surrounding the outlook have consequently increased. Consensus surveys show a sizeable increase in the dispersion of forecasts, along with a sharp decline in expected GDP growth. Both the greater uncertainty and the lower expected growth could have pushed down investment in the post-crisis period.

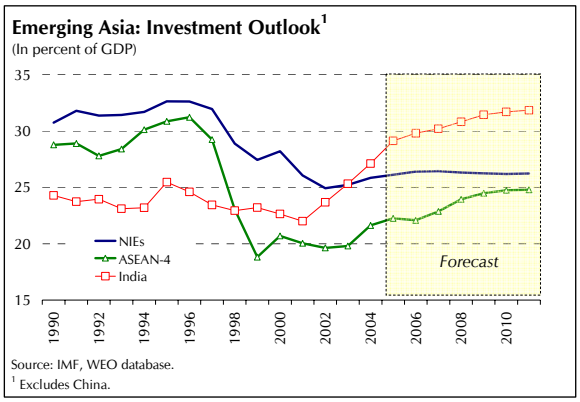


To summarize, one factor that might have held back investment in Asia is macroeconomic and microeconomic uncertainty. Corporate and financial sector restructuring, which once acted as a constraint on investment, no longer seem to be an important factor at a regional level. Similarly, competition from China seems to have played a limited role, at least for the region as a whole. However, both the economic outlook, and the microeconomic environment as measured by governance indicators, have become riskier, and this may well be weighing on investment.

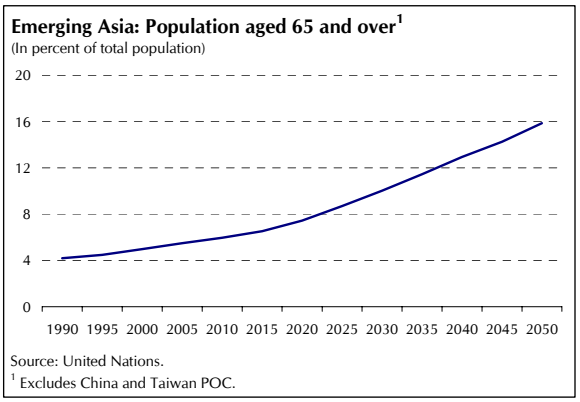
Outlook and Tentative Policy Implications

The medium-term outlook for investment varies considerably across sub-regions of emerging Asia. According to IMF staff forecasts, in the NIEs the investment ratio is projected to remain broadly flat. In the ASEAN-4, the investment ratio is projected to stage a modest recovery, but would remain well below the pre-crisis peak. In India, by

contrast, the ratio is projected to rise to well above mid-1990s levels.



Many factors will shape the actual outturn for investment in the nearer and longer term. Over the near term, these include the strength of world demand and the pace at which global financial conditions tighten as the monetary policy cycle advances in the major countries. Movements in the IT cycle will also play an important role. Over a long-term horizon, demographics will have a growing effect, given the pending acceleration of population aging. In many Asian countries, the old-age dependency ratio is set to double or triple over the next five decades, potentially reducing both savings and investment.[12]



[12] Effects on current accounts are consequently ambiguous in theory; however, Brooks (2003) estimates that on balance, both China and Japan will develop sizeable external deficits.

It is worth reiterating that a return to inflated pre-crisis investment levels is neither likely nor warranted. As discussed above, the post-crisis decline in investment partly reflected a collapse in overheated real-estate markets, which in some countries (for example Singapore) reflected the bulk of the investment decline. In addition, technological innovation, by creating more efficient capital goods, could conceivably lower the optimal investment ratio, although these goods also tend to depreciate rapidly, and the effect seems likely to be small. More generally, the "right" level for investment is impossible to identify with any precision.

That said, the above analysis suggests a few general ways in which the environment for investment could be enhanced in selected countries:

- Prudent monetary and fiscal policies have helped to contain any increase in perceived macroeconomic risk; sustaining such policies (and enhancing them where there is room for improvement) is warranted.

- Structural improvements in the investment environment, notably in governance frameworks, would in some instances be helpful as well, to deal with uncertainty, raise expected rates of return, and improve competitiveness in the face of globalization. Key elements could include trade liberalization, deregulation, and improvements to infrastructure. (At the same time, subsidies and guarantees that distort investment decisions should be avoided.) Such steps would be in line with the

G-20's agreed strategy to enhance the investment climate.[13]

- Deepening and broadening financial systems, especially by encouraging the further development of corporate bond markets, can both develop additional channels to finance investment and provide backstops for banking systems in the event of stress. At the same time, better-developed financial systems can help firms to cope with a more uncertain environment by facilitating the management and diversification of investment risks through financial markets.

Within this broad envelope, however, the emphasis of policy prescriptions would need to depend on the circumstances in individual countries. To give a few examples:

- In the Philippines, the investment climate could be improved by ensuring fiscal sustainability and macro stability, enhancing the infrastructure and reforming the power sector, and strengthening and deepening financial markets.

- In Malaysia, as recognized in the National Integrity Plan, steps are needed to improve investor perceptions, which remain worse than pre-crisis levels; a staff study has also found evidence of financing constraints for smaller firms and those in the service sector. Finally, investors also see a need to enhance the skills base.

- In Indonesia, desirable reforms to improve the investment climate include strengthening governance at tax offices and customs, enhancing labor market flexibility, and addressing corruption.

- In Korea, remaining weaknesses in small and medium-sized enterprises that have restrained facilities investment, as well as rigidities in labor markets, are key issues to be tackled.

- In India, it would be useful to ease infrastructure and power bottlenecks, improve the business climate and regulatory environment (by streamlining bureaucratic procedures and further relaxing limits on FDI), continue with trade liberalization, and reform restrictive labor laws.

Finally, the increase in uncertainty suggests that savings could play an important role in the adjustment in current-account balances, after all. In particular, the riskier macroeconomic and microeconomic environment may have prompted firms and households to increase precautionary savings, in addition to dampening investment. If this is correct, steps to alleviate the perceived risks in the macroeconomic and microeconomic environments could both reduce savings and boost investment, helping to narrow current account imbalances along both dimensions.

[13] "G-20 Accord for Sustained Growth," Berlin, November 21, 2004.

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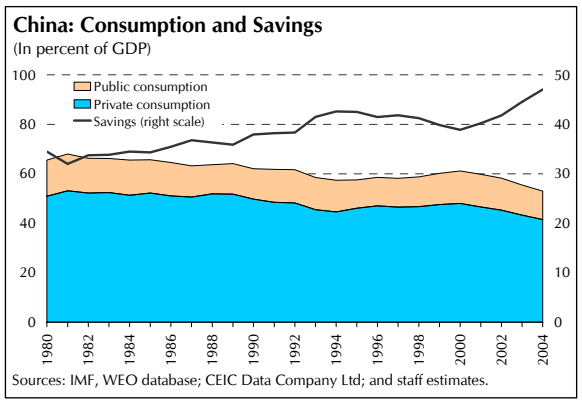
VI. REBALANCING GROWTH IN CHINA

In recent months, increasing attention has been focused on how to rebalance China's economy away from heavy dependence on exports to lead growth towards domestic demand. As part of this, discussion has focused on making domestic demand more self-sustaining by shifting its composition from investment to consumption. This chapter analyzes the factors behind China's low consumption and discusses some policy and structural reforms that can raise it over the medium term.

From the Chinese policymakers' point of view, the current drivers of growth, namely investment and exports, are seen to be unsustainable. Higher rates of investment run the risk of creating overcapacity, leading to deflationary pressures and non-performing loans in the coming years. Meanwhile, excessive reliance on exports exposes the economy to sudden changes in external conditions. From an international perspective, boosting consumption is seen by a growing chorus of policymakers and analysts to be an important way of reducing China's growing external surplus. But such considerations risk prompting a string of ad hoc policy actions that at best can only provide a temporary boost to consumption, but no lasting, productive solution.



Aggregate statistics paint a very stark picture: last year Chinese households consumed only around 40 percent of GDP. [1] However, this was not always the case. The consumption-to-GDP ratio stood at 51 percent back in 1980 when the liberalization of China's economy had just begun, but it has steadily declined since then. At the same time, there has been a steady increase in domestic investment. Investment's share in GDP was around 44 percent of GDP in 2005.

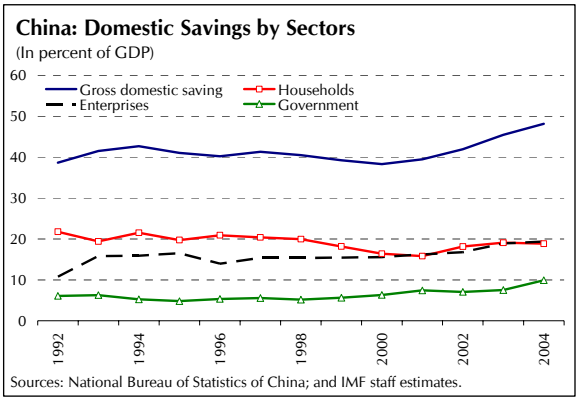
On the flip side, China's low consumption to GDP ratio is mirrored in high savings. Household savings is high at around 19 percent of GDP. It fell slightly through the 1980s and the 1990s, only to rise modestly since then.[2] Corporate and government

[1] All ratios to GDP are expressed in terms of expenditure-side GDP prior to the revision. Production side GDP was revised upwards recently due to greater coverage of the services sector. However, with the exception of 2004, the revised expenditure side GDP and components have not yet been published. Deflating the unrevised expenditure components with the revised and higher production-side GDP would lower all the ratios and leave nearly 10 percent of GDP unaccounted by expenditure components. Thus the historically consistent series of expenditure-side GDP is used as the denominator instead. The revised 2004 expenditure side data imply consumption and investment ratios very close to those prior to the revision, suggesting that the further expenditure-side revisions may not change the ratios significantly and should not alter the assessment in this paper.

[2] Household savings for the period before 1992 are discussed in Kraay (2000), which

(continued)

savings, on the other hand, has steadily increased, with the pace of increase picking up in recent years. During the past five years, enterprise and government saving each rose by around 4 percentage points of GDP, and they now represent around 20 and 10 percent of GDP, respectively.



The decline in the share of consumption in GDP was mainly due to a falling share of household disposable income in GDP, with the household saving rate remaining high. Disposable income, despite rising at a rapid clip, has lagged GDP as both labor and investment incomes have fallen as a share of GDP due to a number of structural factors. At the same time, the household saving rate remained around 30 percent of disposable income, reflecting, among other factors, uncertainties surrounding public pension, rising health care and children's education costs, the limited scope to finance durable consumption through bank borrowing, and the prospective aging of the population.

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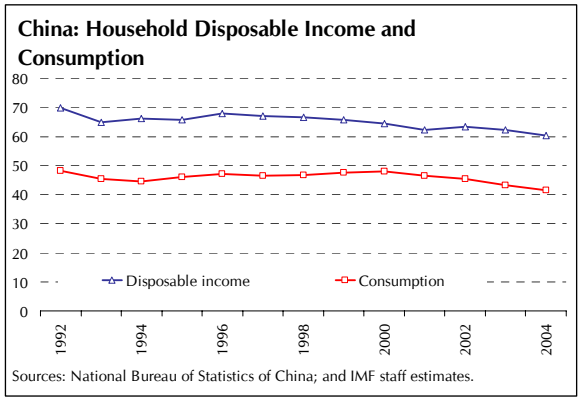
showed a steady decline of the household savings to GNP between 1983 and 1995. The exact magnitude of the components of overall savings, i.e., savings by households, enterprises, and the government are difficult to disentangle, but estimates suggest that households save about 16-18 percent of GDP, with enterprises around 18-22 percent of GDP, and government between 6-10 percent of GDP (estimates by Kuijs (2005) and Chamon and Prasad (2005) are broadly similar).

What Accounts for Consumption's Declining Share of GDP?

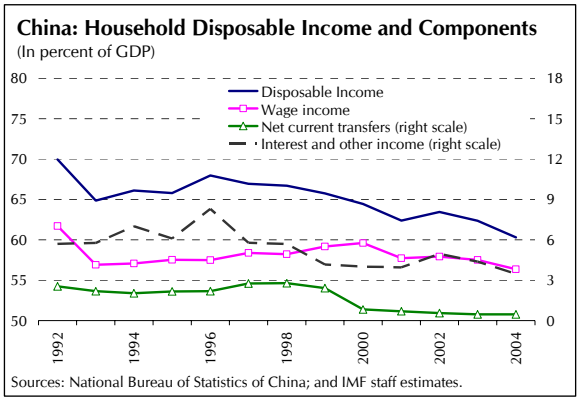
To be sure, a decline in consumption relative to GDP was to be expected, as China's development took off in the 1980s. A significant increase in the rate of capital accumulation has been the major driver of growth, as experienced by almost all other countries in the initial stages of development. Thus, a high saving rate was, as many economists would argue, necessary for economic catch up. What has surprised analysts and drawn their attention to China's experience is the extent of the decline in the share of consumption in GDP.

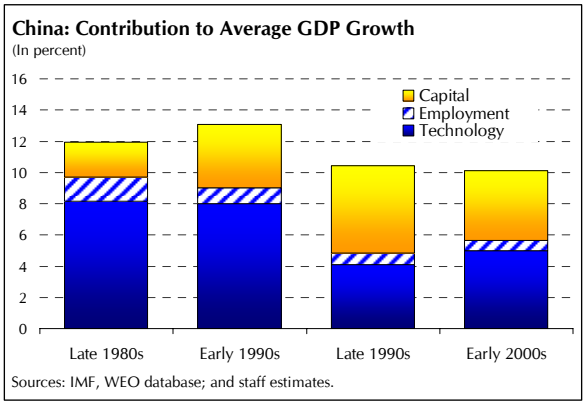
It should be emphasized, however, that consumption growth in fact has been high. Since the early 1990s, real consumption has grown at an average annual rate of 8 percent. Nonetheless, consumption growth has lagged the average annual rate of GDP of around 10 percent over this period, such that consumption's share in GDP has fallen by around 7 percentage points.



Much of decline in the consumption-to-GDP ratio coincides with the fall in the share of disposable income in GDP. Since the early 1990s, the ratio of household disposable

income to GDP declined by 10 percentage points. During the latter half of the 1990s, much of the decline in the disposable income-to-GDP ratio was due to a fall in investment income, while in the period since, a declining share of wages in GDP was an added factor. The decline in investment income largely reflected low interest rates on bank deposits, which has been the dominant vehicle of household savings, and limited transfers of corporate profits to households (discussed below). Wages, which are increasingly determined by market conditions, have been kept from rising rapidly by the vast number of excess workers in the agricultural sector. Moreover, the fast pace of investment growth in recent years has increased the capital intensity of production, and has led to a slowdown in net job creation.





It is striking how very little of the strong rise in corporate profits has been transferred to households. This has largely reflected the ownership structure and dividend policy in China.

- Over the last two decades, the share of the private sector in China has increased, and the public sector has slowly diluted its ownership through listings in the stock market and sales to foreign investors. However, stocks are not held widely by households. Lately, the Chinese stock market has languished, mired in a number of scandals, and it suffers from an overhang of non-tradable shares.[3] This has driven well-known Chinese firms to list in foreign exchanges, making investments in equity even less attractive to households. Moreover, even those firms that are listed on the exchange typically do not distribute any significant amount of profits as dividends. Instead, they have kept these large and growing internal savings as a cheap source of financing for investment.

- A narrow household shareholding base, of course, is not special to China. However, in many countries where shareholding is limited, dividends are transferred indirectly either through institutional investors or through the government budget. Neither channel

[3] Until recently, about two thirds of the shares of the listed companies in China's stock market were nontradable. The uncertainties about how the issue may be resolved, in particular the concerns that these shares will flood the market, have resulted in depressed stock prices and low participation in recent years. The government recently launched a program to convert these nontradable shares into tradable ones.

works well in China. First, institutional investors (such as mutual funds, unit trust, and pension funds) are not very active and households do not save any significant portion of their savings through them. Second, unlike in many other countries where firms pay corporate taxes and profitable state-owned enterprises (SOEs) pay dividends to the government, which are then used to provide income transfers to households or services that are substitutes for private consumption, neither of these things is large in China. Profitable SOEs do not pay dividends to the government, although their profits have been significant and have risen sharply in the last few years. Corporate tax has stayed around 3 percent of GDP, despite the rapid rise in corporate profits as a share of GDP. At the same time, net budgetary transfers to households amount to only around ½ percent of GDP.

As a result, household income, and hence consumption in China has reflected neither the rise in profits, which has been the fastest growing component of national income, nor the likely substantial increase in corporate net worth.[4]

Despite the fall, the ratio of disposable income-to-GDP in China is comparable to that in other countries, while the consumption to GDP ratio is relatively low. Such international comparison, however, should be done cautiously with considerations for institutional differences across countries**.** While several countries, including Australia, Canada, and Korea have quite modest personal disposable income-to-GDP ratios, they often reflect institutional differences that are not captured in aggregate national account data. For example, households in Australia and Canada transfer a much higher proportion of GDP as income taxes to the government. In return, households receive substantial publicly provided goods that are privately consumed, such as health and education, that are not included in measures of personal consumption in national accounts. In contrast, income-related taxes are relatively low in China, while government provision of health and education services has declined and is one of the lowest in the sample of countries. Once such institutional differences are accounted for, the gap between China's consumption-to-GDP ratio and that in other countries is even greater.

[4] Another source of household wealth is their housing assets, which have appreciated strongly in China during recent years (an annual average rate of 5 percent). While the larger wealth associated with higher housing prices may encourage some households to increase their consumption, others may be forced to save more for their future house purchases given their liquidity constraints. Thus, the impact of a booming housing market on the aggregate consumption in China is ambiguous.

Selected Countries: Consumption, 2004

(In percent of GDP, unless otherwise indicated)

	Personal disposable income	Taxes on personal income[1]	Personal consumption/ disposable income	Personal consumption	Labor Income income	Government consumption on health and education[2]	Adjusted consumption[3]
United States	74	9	95	70	57	22	92
United Kingdom	66	10	98	65	56	13	78
Australia	58	12	103	60	49	15	75
Canada	58	12	96	56	50	16	72
Korea	54	3	95	51	44	14	65
Ireland	49	...	91	44	40	12	56
France	62	8	90	56	52	16	72
Germany	66	9	88	57	51	16	74
Italy	67	...	90	60	42	14	74
Japan	59	8	96	57	51	12	69
India	84	2	76	67	...	...	...
Singapore	52	2	82	43	...	...	...
China	60	1	69	41	56	3	44

Sources: OECD; CEIC Data Company Ltd; IMF country desks.

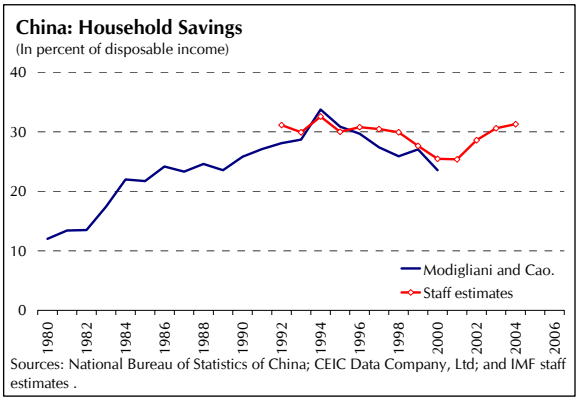
[1] 2003 figures.

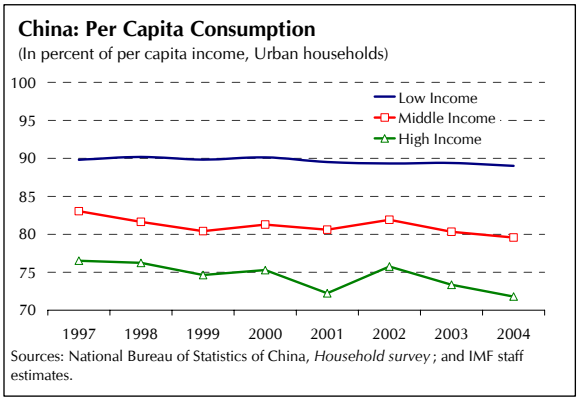
[2] 2001 figures.

[3] Personal consumption and government consumption on health and education.

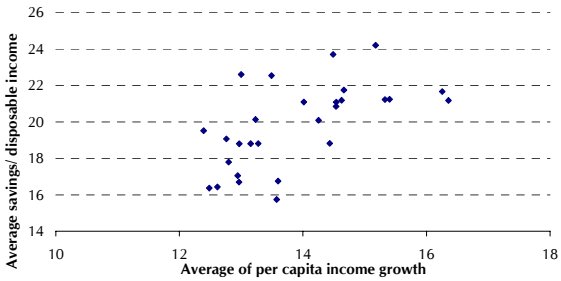
The household saving rate has been high, despite the decline in the share of disposable income in GDP. Saving as a percentage of disposable income was around 12 percent in 1980 and rose steadily in the next 10 years (Modigliani and Cao). While moderating somewhat in the 1990s, it has risen again in the last five years, returning to its early 1990s level of around 30 percent.

Part of the increase in the saving rate may reflect the rise in the proportion of the population crossing the subsistence income threshold. Although disposable income has not kept pace with GDP growth, households have seen an unprecedented increase in their income over the last 15 years. As a result, the proportion of households crossing subsistence levels of income has increased, which has led to a rise in the saving rate.





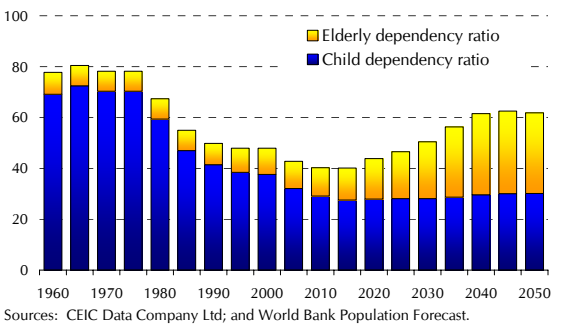
China: Urban Household Savings Ratio and Income Growth (1993-2004)



Sources: National Bureau of Statistics of China, *Household survey*; and IMF staff estimates.

China's demographic changes have also affected the saving rate. The decline in China's dependency ratio since 1980 was seen as an important factor contributing to the rise in the saving rate. Moreover, the anticipated rise in the dependency ratio, in part due to China's one child policy, has encouraged individual asset accumulation as the traditional source of old-age support from the extended family has become increasingly limited (Modigliani and Cao).[5] However, as the dependency ratio begins to rise after 2010 (United Nation Population Division), the aggregate saving rate could decline.

China: Dependency Ratio
(In percent)

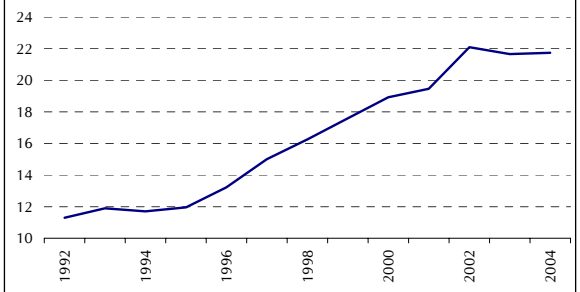


Sources: CEIC Data Company Ltd; and World Bank Population Forecast.

[5] The one-child policy, although less strictly implemented in rural areas, is held responsible for giving rise to the "2-4-1 problem" in the coming years. Loosely speaking, this refers to the fact that each 2-person working household will need to support 4 elderly parents and one child.

Precautionary savings motives are also likely to have contributed to China's high saving rate. Despite the phenomenal growth in income over the last 25 years, the economic transition has increased uncertainties. Since the mid-1990s, state-owned enterprises have increasingly been relieved of their social responsibilities, including the provision of pensions, health care, and schooling. These responsibilities have been transferred to local and central governments. Many of the poorer provinces have found it financially difficult to deliver these services. Indeed, government spending on education is only about 2¼ percent of GDP, the lowest among Asian economies, while that on health care is even lower, accounting for about ½ percent of GDP. As a result, health and education expenses have been the two fastest growing components of household consumption. Reflecting this, the share of out-of-pocket health spending in total health care cost has increased from around 20 percent in 1978 to above 58 percent in 2002 (China National Health Accounts Report, 2005). Notwithstanding the increase in current spending in these categories, uncertainty over how the future retirement, health care, and children's education costs will be met has contributed to an increase of households' precautionary savings. Those approaching retirement may be among the most vulnerable to these uncertainties, contributing to the relatively high savings rate by this cohort (Chamon and Prasad, 2005).

China: Urban Household Expenditure on Health and Education
(In percent of total expenditure)



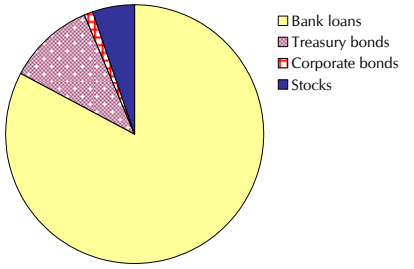
Sources: Household survey; National Bureau of Statistics of China; and IMF staff estimates.

Apart from limited public provision of health and education, inadequate provision of basic infrastructure in interior provinces has reduced the scope for higher consumption of durable goods and services. Although food and clothing make up a sizeable portion of household spending, the main drivers of higher consumption are likely to come from increased purchases of durable goods and services. Nevertheless, the consumption of durable goods and services depend on the availability of infrastructure, including the provision of electricity, roads, telecommunications, and health services. While China has made considerable investments in these areas, regional disparity between the coastal (more prosperous) and the interior (poorer) provinces in such infrastructure remains large. Consequently, a large section of the population, albeit with relatively low income, lacks the opportunity to avail what are potentially the fastest growing components of consumption.

Households have very limited access to consumer or business financing, increasing the need to save. The banking system has so far played only a small role in consumer lending, with consumer loans accounting for only 14 percent of total bank lending, a smaller share than most other Asian economies. The small size and reach of consumer lending has imposed serious liquidity constraints on households, such that they have been forced to save before undertaking major purchases for durable goods and housing, and this has been particularly important in keeping the saving rate of the younger cohorts high. In addition, bank credit has generally chased large enterprises and SOEs and shied away from small and medium-sized enterprises. Instead, owners of these businesses have drawn on savings of their own or family members to expand operations and for working capital.

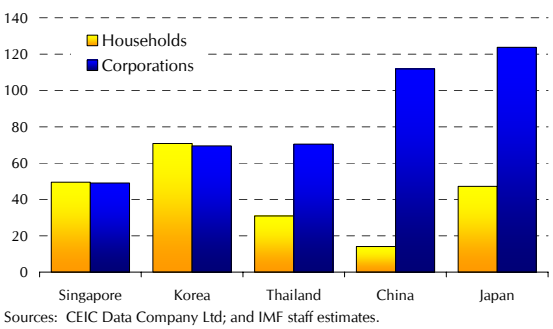
The underdeveloped capital market also played a role in keeping the consumption rate low and the saving rate high. Returns on household financial assets are relatively low. Financial instruments for saving and pooling risks are few. Banks dominate the financial system, and bank deposits are the main vehicle for household savings, accounting for nearly three-quarters of annual financial savings. In addition to the relatively small size of the stock market and the narrow shareholding base, China's insurance market is also underdeveloped, offering few

China: Borrowing of Nonfinancial Institutions, 2004
(In percent of total)



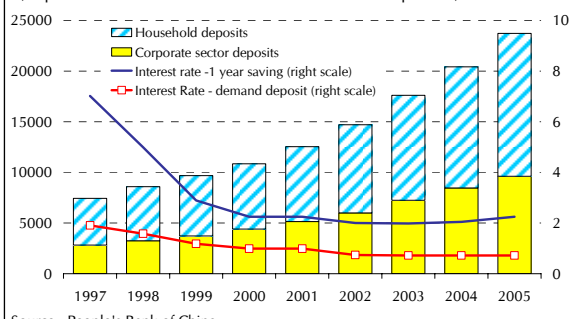
Source: People's Bank of China, *China Financial Stability Report, 2005.*

China: Corporations and Households Lending, 2004
(In percent of GDP)



Sources: CEIC Data Company Ltd; and IMF staff estimates.

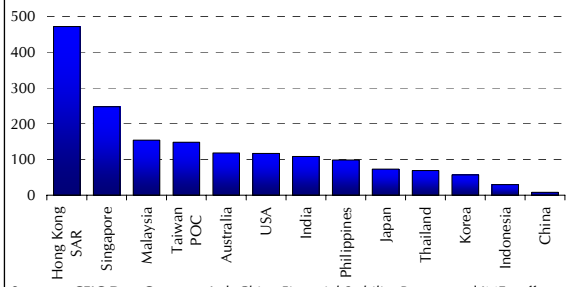
China: Deposits and Interest Rates
(Deposits in billions of Renminbi and interest rates in percent)



Source: People's Bank of China.

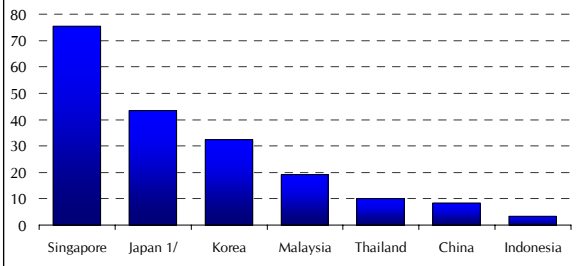
opportunities to households to pool individual risks, such as those related to labor income and life expectancy. In the absence of such risk pooling, households have saved "excessively", i.e., more than what would have been the case had these markets functioned efficiently.

China: Stock Market Capitalization, 2004
(In percent of GDP)



Sources: CEIC Data Company Ltd; *China Financial Stability Report*; and IMF staff estimates.

China: Total Assets of Insurance Industry, 2004
(In percent of GDP)



Sources: CEIC Data Company LTD; OECD Insurance Yearbook; *China Financial Stability Report*; and IMF staff estimates.
[1] End of 2003

What Needs to be Done?

Consumption and savings behavior in China reflect basic institutional and structural factors. Rather than looking for short-term, ad hoc policy measures that might give a temporary boost to consumption, the focus should be on structural reforms that would stimulate a more permanent increase in consumption and make GDP growth more balanced over the medium term.

- On the macroeconomic policy front, greater exchange rate flexibility will help to improve investment decisions, and a likely appreciation in the near term could raise consumption by boosting households' purchasing power, although some sectors in the economy (such as the agricultural sector) may be vulnerable to employment loss.

- Fiscal policy has a major role in reducing uncertainties in the provision of education, health care, and pensions, which should substantially lower precautionary savings and help to increase consumption. Such reforms would likely require higher budgetary spending. In addition, ensuring that local governments are provided sufficient funds will be important to assure households of public delivery of social services.

- In the banking sector, a wider range of household credit instruments would enable better intertemporal smoothing of consumption by facilitating borrowing against future income, helping to bring down saving rates. Ongoing banking sector reforms, especially the implementation of the improved risk management systems, should also help banks to cater to the lending needs of the small and medium-scale enterprises that, in turn, should help to reduce household savings over time. Reforms to enable farmers to sell their and borrow against their land use rights at market prices and borrow against their land would help meet the financing need of the rural households.

- These reforms need to be supplemented by developing the capital markets further. A rejuvenated equity market with greater household participation would allow households to diversify their portfolios and benefit from the rising profits and market values of firms, and enable them to increase consumption. In

addition, better insurance products will help households to pool risks and protect themselves against adverse shocks such as job losses or large healthcare expenses without saving excessively.

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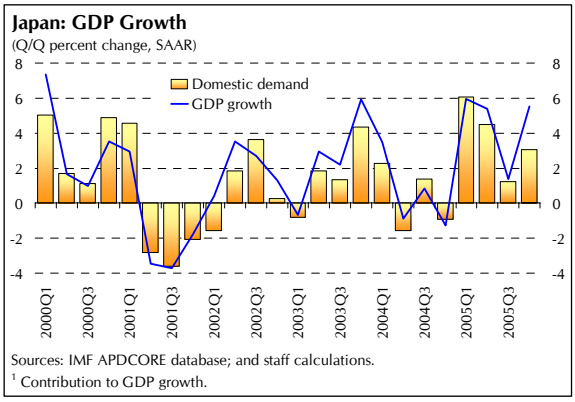
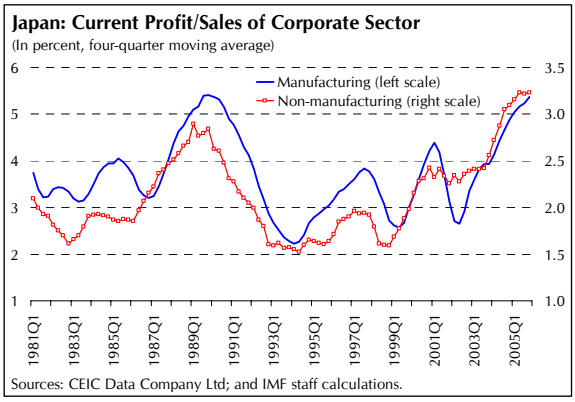
BOX 1. THE REVIVAL OF JAPAN

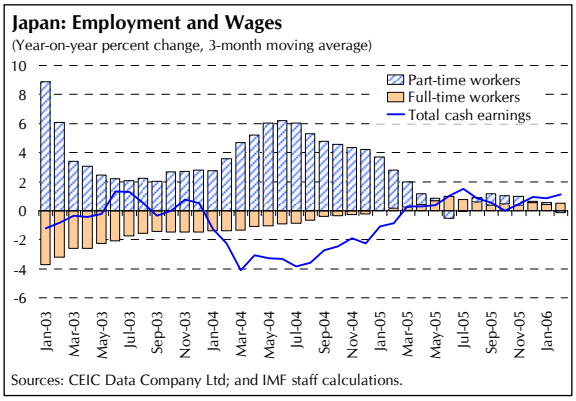
Japan's recovery has strengthened and deepened in recent quarters. Following a very rapid expansion in the first half of 2005 and a slight deceleration in the third quarter, the economy raced ahead again at the end of the year, bringing overall growth for 2005 to 2¾ percent. It is now three straight years that Japan has grown above its potential growth rate, currently estimated at around 1.5 percent but likely to be revised higher. Equally encouraging, growth has been increasingly broad based, with domestic demand's contribution rising substantially in 2005.



The foundation of this recovery has been corporate restructuring. Industrial firms have gradually moved away from costly and inflexible life-time employment practices, and for many years limited investment spending to deal with the overhang of fixed assets and debt created in the bubble years. At the same time, stronger regulatory pressure forced financial firms to deal with the non-performing loans in their balance sheets. Overall profitability has consequently risen to levels last seen in the late 1980s, and this is in turn allowing for stronger investment and hiring. In January, the ratio of job offers to job seekers—a closely watched indicator of labor market strength—reached unity for the first time in thirteen years. And as slack has disappeared from the labor market, wages have begun to increase, thereby lifting household incomes and stimulating a recovery in private consumption.

As domestic demand has revived, deflation in Japan has begun to wane. Core CPI (which excludes fresh food but includes energy) increased 0.5 percent y/y in February, somewhat faster than expected. This was the largest increase since 1998 and the fourth monthly increase in a row. Excluding special factors (electricity, gas, communication charges, rice, and petroleum products), the index rose by 0.1 percent y/y. Other indices, including the GDP deflator and the personal consumption expenditure deflator, remained weak. But this progress in ending deflation has been sufficient to allow the Bank of Japan to declare in mid-March an end to its policy of quantitative easing.





Still, large challenges remain. Fiscal consolidation is proceeding faster than expected, with the general government deficit in Japan estimated to have fallen for the third consecutive year in 2005, to 5.8 percent of GDP from 6.6 percent in 2004. The authorities have consequently moved up by one year the target date for achieving primary balance excluding social security. However, more remains to be

BOX 1. THE REVIVAL OF JAPAN (CONT.)

done. The general government debt to GDP ratio has increased by eight percentage points since 2003 despite the recovery and progress on fiscal consolidation, and at 175 percent it remains the highest by far among advanced economies. Moreover, the fiscal position will suffer significant strain in decades to come from the aging of the population, since dependency ratios are rising fast and Japan's population is already on the decline.

Population aging will challenge economic prospects more generally, and higher productivity growth will be needed to secure rising living standards. Productivity growth remains low in the non-manufacturing sector, particularly in agriculture, wholesale, and transportation. The authorities are currently advancing plans for structural reform in these areas.

BOX 2. AUSTRALIA AND NEW ZEALAND: DEVELOPMENTS AND OUTLOOK

Australia

In Australia, growth is projected to quicken to around 3 percent in 2006 from 2½ percent last year, driven mainly by an acceleration in domestic demand. Business investment is expected to expand rapidly, as firms try to alleviate the bottlenecks that have emerged in the wake of a commodity price boom, triggered by China's growing demand for raw materials. Meanwhile, private consumption is likely to remain subdued in the face of a flat housing market and high gasoline prices.

Inflation has been contained. Prices have been under pressure from rising energy costs and a tightening labor market—at 5 percent, unemployment is the lowest it has been in about three decades. But inflation was limited to 2¾ percent last year and should remain around this level in 2006, within the Reserve Bank's 2-3 percent long-term target range. Consequently, the central bank has maintained a wait-and-see stance since March 2005.

The current account deficit is slowly shrinking but remains among the highest in the region, despite favorable terms of trade. The current account deficit is projected to decline by around ½ percent of GDP to around 5½ percent of GDP in 2006, on the back of further improvements in the terms of trade. But export volumes are expected to grow by only 2¼ percent, about the same as last year, the result of capacity constraints.

New Zealand

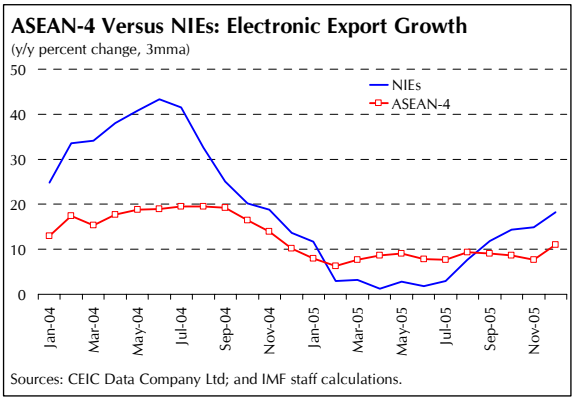
The economy is slowing down after years of strong growth. Growth in 2006 is projected to decline to around 1 percent, with rising mortgage rates contributing to a downturn in domestic demand that was already underway; residential investment is expected to contract sharply this year.

Inflation has risen slightly above the 1-3 percent target range on account of rising oil prices and rises in housing construction costs, and is projected to stay at that level in 2006. However, recent evidence suggests that resource pressures and inflation expectations are now easing, allowing the Reserve Bank to maintain its policy rate at 7¼ percent, 225 basis points above its early 2004 level.

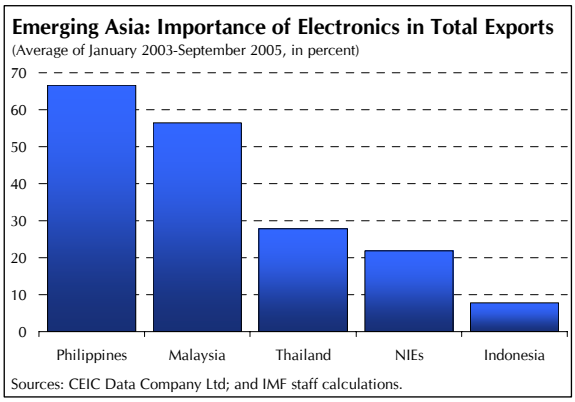
With the release of weak economic data and concerns about the end of the global carry trade, the New Zealand dollar has weakened sharply in recent months from its exceptionally high levels. Consequently, the current account deficit is expected to remain at 9 percent of GDP this year, then narrow substantially over the medium term.

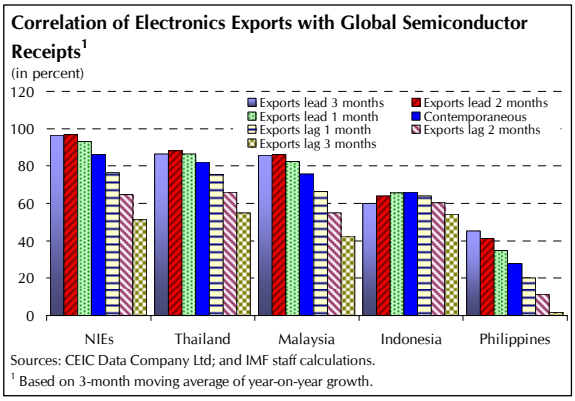
BOX 3. THE ASEAN-4 AND THE ELECTRONICS CYCLE

The ASEAN-4 countries have lagged behind the recent upturn in the electronics cycle, even as electronics exports from elsewhere in the region have surged. This lag is particularly pronounced in Indonesia and the Philippines, which has been causing concern that the electronics sector in both countries is becoming less competitive. For the Philippines, where electronics account for over two-thirds of total exports, a loss of competitiveness would have especially large implications.



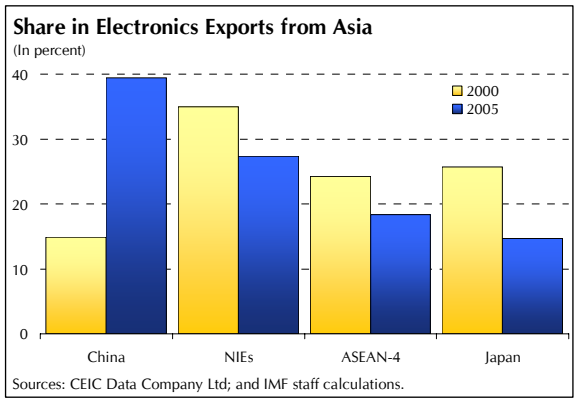
However, electronics exports from the Philippines, and to a lesser extent Indonesia, have historically been less correlated with the global electronics cycle. This could be because the electronics sector in both countries is more heavily geared towards production of intermediate inputs, causing electronics exports to lead the global electronics cycle. For the Philippines, statistical evidence provides some support for this hypothesis, since electronics export growth becomes more correlated with the global electronics cycle as the lead between exports and the global electronics cycle increases, with the correlation peaking at a lead of four months. For Indonesia, and other countries in the region, electronics export growth tends to be more synchronized with the global cycle. Of course, the low correlation could also reflect the possibility that both countries' electronics sectors are geared towards different products than the rest of the region, so that export performance is driven by developments in different market segments. Moreover, the low correlation could also be due to manufacturing capacity coming online or being shut down, which may have caused exports to move out of synch with global electronics demand at different points in time. These considerations suggest that concerns over near-term export performance may be overblown.



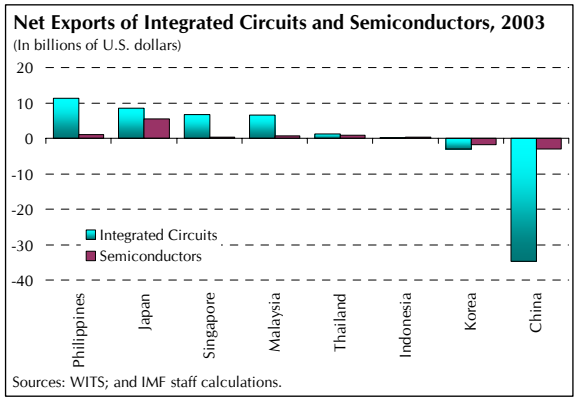


Over the medium term, however, regional and technological factors could pose a challenge for the ASEAN-4. At the regional level, electronics exports from China have grown dramatically over the last decade, at the expense of other countries in the region. This shift is driven by the emergence of China as a final assembly point for electronics produced in the region, with higher value-added work such as design and manufacturing of integrated circuits as well as semiconductors remaining elsewhere. Indeed, over the past few years, this shift has benefited the ASEAN-4 countries, as exports of components to China boomed. However, over the medium term, the ASEAN-4 are threatened by the backwards integration of China into other production areas, a

BOX 3. THE ASEAN-4 AND THE ELECTRONICS CYCLE (CONT.)



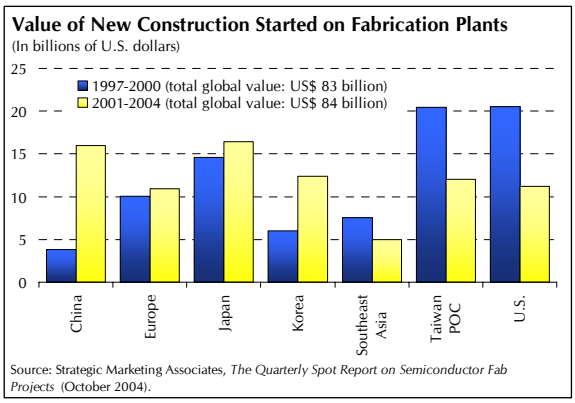
Sources: CEIC Data Company Ltd; and IMF staff calculations.



Sources: WITS; and IMF staff calculations.

shift that is already diverting investment in new capacity from Southeast Asia. Investment in new fabrication plants in China shot up to $16 billion over the period 2001-2004, up from $4 billion in 1997-2000, while investment in Southeast Asia fell to just $5 billion, with even sharper declines in Taiwan POC and the U.S. More recent data tend to underscore this point. In 2004, 29 new fabrication plants were announced with a total value of $31.3 billion. In terms of value, most of these announcements were in Japan ($8.5 billion), followed closely by China ($6.3 billion), with Southeast Asia a distant last ($0.1 billion).[1]

This regional factor is compounded by the rapid pace of technological innovation. For example, the electronics sector in the ASEAN-4 countries tends to be heavily geared towards production of hard drives, which over the medium term may be increasingly replaced with flash memory. Indeed, Apple recently made the decision to replace hard drives in the latest generation of iPods with flash memory, a shift that will benefit primarily Japan, Korea, Taiwan Province of China, and the United States. As the capacity of flash memory evolves further, hard drives may become increasingly relegated to more mature products (such as servers), where market growth will be slower.



Source: Strategic Marketing Associates, *The Quarterly Spot Report on Semiconductor Fab Projects* (October 2004).

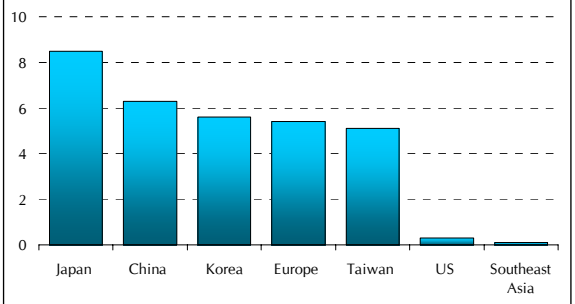
Over the medium term, each country could address these challenges by building on its competitive advantages. Thailand is an important producer of hard drives, for which demand may gradually wane. But it will benefit from the emergence of an automotive sector, which produces mainly Japanese cars for export to the rest of ASEAN. Meanwhile, Malaysia's competitive edge lies in the shorter delivery times that its infrastructure allows. This advantage may erode over time as China's infrastructure continues to improve. Indonesia benefits from low wage costs, but weak investment in the export sector since the Asian crisis may signal a longer-term structural problem. Finally, the Philippines benefits from its English-speaking labor force, but investment has been weak and three electronics multinationals announced last year that they are moving production elsewhere in the region. While each country should try to build on its competitive

[1] Fabrication plants produce integrated circuits and semiconductors.

BOX 3. THE ASEAN-4 AND THE ELECTRONICS CYCLE (CONT.)

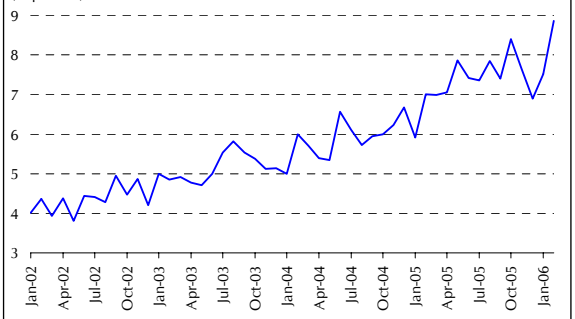
advantages, the region as a whole may also benefit from obstacles to investment in China, which include weak intellectual property protection, the spiraling cost of increasingly scarce skilled labor, and unreliable power supply.

Fabrication Plant Announcements in 2004
(In billions of U.S. dollars)



Source: Strategic Marketing Associates, The Quarterly Spot Report on Semiconductor Fab Projects (October 2004).

Thailand: Importance of Vehicles and Parts in Total Exports
(In percent)

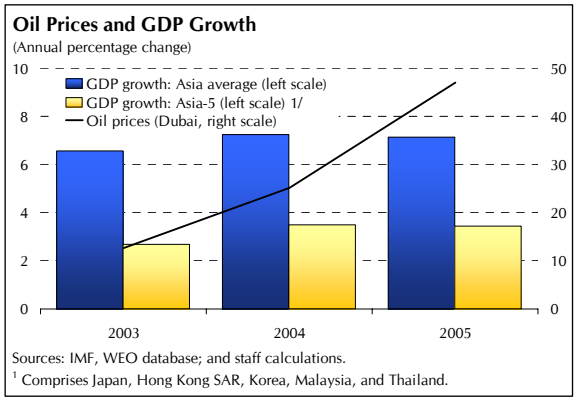


Sources: CEIC Data Company Ltd; and IMF staff calculations.

BOX 4. THE IMPACT OF OIL ON GROWTH

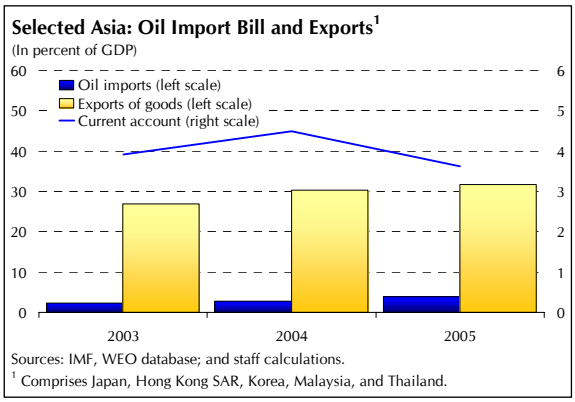
As oil prices soared in 2004-05, concerns mounted about the potential impact on Asia's growth. These concerns sprang from several sources. To begin with, Asian economies are particularly energy-intensive, because of their large manufacturing sectors. And for this energy they generally depend on imported oil (with Malaysia and Indonesia being notable exceptions). Consequently, most simulations made in 2004 showed that the oil price shocks would have a sizeable impact on real incomes and GDP. IMF staff estimates, for example, indicated that GDP growth in Asia might decline by ¾ percentage points for every $10/barrel increase in the price of oil, merely from the direct effects of the increase. Since oil prices increased by roughly $30 dollar/barrel, the impact could have been three times larger.

In the event, however, higher oil prices did not seem to make much of a dent in the region's growth. To the contrary, emerging Asia grew by about 7 percent in 2004-2005, slightly faster than in 2003. This remarkable performance begs a question: why was the apparent impact so small? We focus on five economies—Japan, Hong Kong SAR, Korea, Thailand and Malaysia—to find out.



In principle, high oil prices affect economic activity through two main channels. On the demand side, higher oil prices lower households' real incomes, prompting them to reduce their consumption. On the supply side, an increase in oil prices raises production costs and induces firms to reduce output.

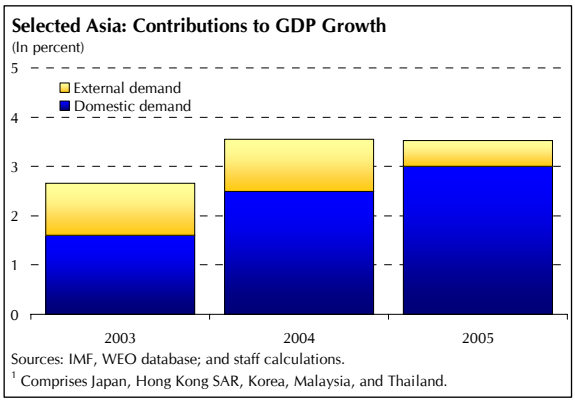
Looking first at the demand side, oil import bills have certainly increased in all five economies. But the rise in costs has not been as great as expected. In fact, actual import prices increased by only about half the rise in international prices, since importers have secured significant amounts of oil on long-term contracts and have hedged the cost of other supplies through derivatives. In addition, higher prices have prompted a fall in energy consumption, reducing import volumes both in 2004 and 2005. As a result, the increase in oil imports relative to GDP since 2002 has been limited to 1½ percentage points, bringing costs to an average of nearly 4 percent of GDP in 2005.



The impact on household incomes, moreover, has been limited because domestic fuel prices have increased by much less than import costs. From end-2003 to end-2005, domestic prices in the five countries increased by only 35 percent, on average. One reason is that local currencies have generally appreciated against the dollar, a particularly important factor in Korea. But the most important reason is that crude import costs account for a relatively small portion of the retail price of petroleum products – less than one-third in Japan, Hong Kong SAR and Korea. (The rest is due to taxes, refining, and distribution costs.) Also,

BOX 4. THE IMPACT OF OIL ON GROWTH (CONT.)

in Malaysia, pass through was limited by government administered prices.



Furthermore, the impact of these price increases on the overall CPI was relatively small. Petroleum products account for only about 3 percent of the CPI on average; even including related categories such as electricity and transportation, the weight is only 10 percent. More to the point, increases in energy costs were offset across the region by falling prices for food, which has a much larger weight in the CPI. Consequently, average inflation remained around 1 percent in 2004-05, although higher than in 2003.

Meanwhile, household incomes benefited from an upswing in world growth and the global electronics cycle. From 2003 to 2005, exports in the five countries increased by 4½ percentage points to GDP to 31½ percent of GDP—much more than the increase in the oil import bill. Consequently, average household incomes increased by about 10 percent in 2004-05, faster than in 2003. With average inflation minimal, real incomes rose by a similar amount, sustaining consumption. At the same time, strong exports also stimulated investment, further contributing to domestic demand.

Finally, on the supply side, the external boom also helped companies absorb rising fuel costs without curtailing output or passing the price increases on to consumers.

BOX 5. THE CONSUMER FINANCE BOOM: IS IT A PROBLEM?

Consumer credit has begun to take off in Asia over the past few years, growing by 40 percent since 2001. This important development has been driven by changes in both supply and demand. On the supply side, lenders have turned to consumers as a new outlet for portfolio growth, in an environment where liquidity has been ample while corporate demand for funds has been depressed by deleveraging coupled with historically low investment rates. Meanwhile, on the demand side, growing per-capita income, financial sector reforms, and government policies in support of consumer and rural credit brought previously unbanked households to the formal sector. The resulting expansion in consumer lending has helped to restore bank profitability and reduce NPL ratios. But it has also brought about new risks and challenges for regulators.

Emerging Asia: Growth of Household Credit
(Annual percentage change)

	2001	2002	2003	2004	2005
Hong Kong SAR	2.9	-1.5	-4.1	1.0	2.0
Korea	28.0	28.5	1.9	6.1	9.9
Singapore	9.8	4.1	17.4	7.7	3.3
Taiwan POC	-0.6	4.0	11.9	18.0	12.8
China	63.9	52.8	47.3	26.3	10.3
Indonesia	36.3	35.7	33.8	37.8	27.9
Malaysia	14.5	23.3	11.8	20.7	15.2
Thailand	7.5	7.9	20.9	14.7	19.7

Sources: CEIC Data Company Ltd; and IMF, APD country desks.

Housing loans and credit card lending have both contributed to the expansion of consumer credit. Mortgage markets have been buoyant in several countries in the region, contributing to the revival of the construction industry and rising housing prices. While often starting from a very low base, non-secured credit-card debt has also risen sharply, partly replacing informal credit.

The expansion of consumer lending has led to a marked shift in the composition of bank portfolios in several Asian countries. The strong performance of household credit has often occurred in the context of stagnant or decreasing credit to corporates. This resulted in a substantial increase in household credit as a share of total credit to the private sector, which now approaches 50 percent in several countries in the region. However, even in countries such as China where the share has not increased because corporate lending has also been buoyant, booming consumer credit has resulted in a noticeable rise in household leverage ratios.

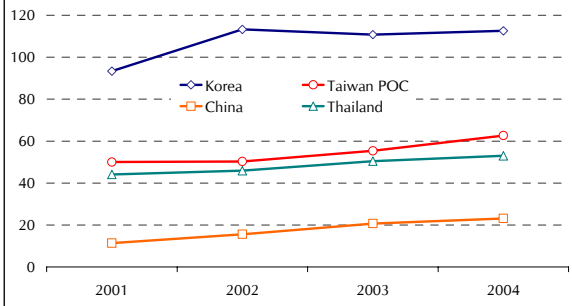
Emerging Asia: Credit to Households
(In percent of total credit to private sector)

	1999	2000	2001	2002	2003	2004	2005
Hong Kong SAR	38.0	38.5	40.5	41.5	41.0	39.9	38.4
Korea[1]	55.8	58.4	65.6	69.9	65.4	68.5	69.3
Singapore	38.6	41.1	42.6	44.9	49.5	51.1	51.6
Taiwan POC	34.6	35.7	37.7	39.8	41.6	43.4	44.7
China	1.5	4.3	6.2	8.1	9.9	11.2	11.3
Indonesia	21.5	25.9	31.9	36.7	40.5	44.3	45.5
Malaysia	22.9	23.7	26.0	29.9	31.6	31.0	30.4
Philippines	15.1	14.2	14.4	14.3	13.9	16.0	16.5
Thailand	23.3	31.8	38.2	35.3	40.0	43.5	48.1

Sources: CEIC Data Company Ltd; and IMF, APD country desks.
[1] September, 2005.

Household debt has risen relative to income, but with a few exceptions (such as Korea and Singapore) has remained well below its level in advanced economies. In addition, housing loans, which often represent over 50 percent of household debt, have typically enjoyed very low rates of default. That said, a still limited "credit culture" in vast segments of the market may have led some households to overborrow. And increased household indebtedness carries risks, as leverage amplifies shocks. For example, as the upturn in the global interest rate cycle increases debt service costs, consumption and asset prices may be threatened.

Selected Countries: Household Debt
(In percent of household disposable income)



Sources: CEIC Data Company Ltd; and IMF APD desks.

BOX 5. THE CONSUMER FINANCE BOOM: IS IT A PROBLEM? (CONT.)

A too limited information-sharing framework on household debt and credit-worthiness has exacerbated the risks associated with fast credit expansion. Credit booms and the expansion of the formal sector into previously unbanked market segments have been associated with increased prudential risk. Banks may have loosened lending standards to compete for market shares in what they perceived as a strategic market for the medium-term,[2] while at the same time they may have struggled to process large numbers of applications for products for which they, as well as the borrowers, had little experience. The absence of well-developed credit bureaus has exacerbated these dangers. In addition, although credit-card loans are still a small fraction of total credit in most Asian countries, they are often concentrated at a small number of institutions relying on interbank and wholesale markets for financing. As such, they may be of systemic relevance.

The experience of Korea testifies to these risks. Korea's credit-card industry expanded rapidly from 1999 to 2002, with the number of active cards more than doubling to over 100 million, an average of 4 cards per adult. Insufficient information sharing among banks and credit-card companies allowed borrowers to hold multiple cards and "kite" payments from one lender to another. The consequences of this excessive expansion were a large number of household delinquencies (about 17 percent of the economically active population) and several credit-card companies in financial distress (including the largest, LG Card, eventually the object of a bailout). The subsequent consumer credit crunch put the economy into a recession.

Taiwan Province of China has experienced similar, albeit much less severe, problems. In Taiwan Province of China, non-mortgage consumer loans grew at an average annual rate of about 20 percent in 2000–05. Credit-card loans and cash-card loans—often promoted to poorer market segments than the traditional targets for bank products—were among the main drivers of this expansion, with the number of credit cards per adult rising from 0.1 in 1992 to 2.8 in 2005. But as consumer loans expanded, so did non-performing loans. The average annualized charge-off ratio on credit- and cash-card loans rose to about 13 percent in November 2005 from about 5 percent in 2004, implying that most lenders are currently making losses on their card lending. In response, the authorities have tightened prudential standards on the credit-card industry, including by imposing administrative penalties if the ratio exceeds 3 percent and suspending a lender from issuing new cards if its delinquency ratio exceeds 8 percent. (Indeed, the increase in charge-offs is in part an attempt by banks to keep delinquency rates below the regulatory thresholds imposed by the authorities.) In addition, the dissemination of borrower information has been improved.

Partly in response to such problems, supervisory authorities have imposed tighter lending standards and regulatory curbs on consumer lending. Income-based eligibility criteria and limits on credit-card outstanding balances have been introduced in Malaysia, Singapore, and Thailand. Several economies (including China, Korea, Hong Kong SAR, Taiwan Province of China, and Thailand) have taken measures to improve the reporting and sharing of information on household debt and credit-worthiness by introducing or revamping credit bureaus. Loan-to-

Emerging Asia: Growth of Credit Card Debt
(Annual percentage change)

	2000	2001	2002	2003	2004	2005
Hong Kong SAR	30.2	12.8	-6.3	-3.7	5.0	19.4
Korea	78.5	122.9	35.0	-44.9	-28.5	-10.9
Singapore	25.8	21.8	15.5	4.4	3.0	7.0
Taiwan POC	11.1	7.5	19.2	31.4	15.4	2.7
Malaysia	36.8	17.9	22.0	12.1	17.2	18.3
Thailand	-3.5	26.3	76.8	30.1	25.6	21.1

Source: CEIC Data Company Ltd.

[2] See Dell'Ariccia and Marquez, "Lending Booms and Lending Standards," *Journal of Finance,* forthcoming.

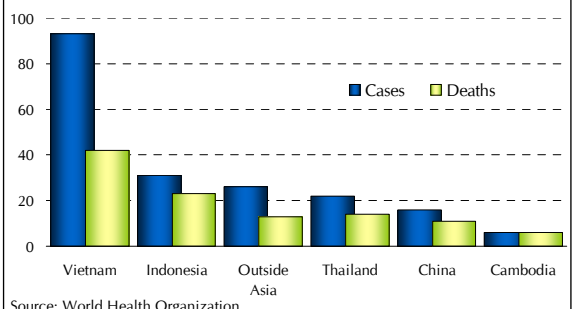
BOX 5. THE CONSUMER FINANCE BOOM: IS IT A PROBLEM?(CONT.)

value limits on housing lending have also been imposed. These measures, jointly with a shift toward monetary policy tightening, have had some success in curbing the expansion of household credit. However, since such credit continues to grow at double-digit rates in most countries in the region, continued vigilance is necessary.

BOX 6. DEALING WITH AVIAN FLU

The third wave of avian flu began in late 2003/early 2004 and continues today. The number of human cases has increased and spread beyond Asia to Africa, the Middle East and Europe. Within Asia alone, there have been more than 160 human victims since the third wave began, of whom more than half have died, and the economic impact of avian flu across Southeast Asia alone has already exceeded $10 billion. If the virus were to adapt itself to human-to-human transmission, millions of lives may be threatened. Although neither the timing nor severity of a pandemic can be predicted with any certainty, the scientific community believes that the risk of a human pandemic is high, potentially causing a large number of deaths and straining health, social, and economic systems in Asia and around the world.[2]

Asia: Confirmed Human Cases of Avian Flu, 2003-06[1]



Source: World Health Organization.
[1] As of April 12, 2006.

Facing the challenge of macroeconomic disruptions

The experience of the 2003 Severe Acute Respiratory Syndrome (SARS) outbreak in Asia highlights how damaging an unexpected international health threat may be in today's global economy. In the economies hit by SARS, tourist arrivals collapsed by 20-70 percent and retail sales growth dropped by 5–10 percent in the second quarter of 2003—though the economies quickly rebounded once SARS subsided. Overall, the temporary economic impact of SARS was estimated at 0.6 percentage points of GDP for the region, varying from 0.2 percentage points in Korea to 1.8 percentage points in Hong Kong SAR. As substantial as these numbers may be, they could pale in comparison with the potential impact of an avian flu pandemic: while SARS infected about 8000 people worldwide, killing 800, deaths from avian influenza could be in the millions, and spread over a much wider geographical area.

The fiscal impact of a pandemic could be large. Public health measures to prevent the emergence or spread of the disease and to treat its effects would entail an immediate burden on governments' budgets. Experts estimate that establishing an effective system of monitoring and prevention in Asia would cost between $250–$500 million, a trivial amount compared with the likely benefits. However, relief packages could be significantly more costly. Following the SARS outbreak, some countries offered financial support to hard-hit sectors costing some 1 percent of GDP. In addition to the short-run costs, longer-term investment to restructure the poultry sector, strengthen health and other infrastructure in rural areas, scale up vaccine research and production, and enhance emergency management capacity could pose additional fiscal pressures in the medium term. While budgetary costs should be manageable in advanced countries, they could pose problems for low-income countries in the region. To ensure that needed external assistance will be available, donors at a January conference in Beijing pledged $1.9 billion to combat Avian flu at the country, regional, and global levels.

In the context of a pandemic, accommodative macroeconomic policies would likely be appropriate. While the situation would vary significantly across countries, the potentially large impact on domestic demand and the relatively short-run nature of the shock (albeit likely longer than that of SARS) suggest that a loosening of

[2] Drawing from the pandemic experiences of the last century, the WHO estimates that 2-7 million people could die, while other estimates are much higher, exceeding 100 million deaths.

BOX 6. DEALING WITH AVIAN FLU (CONT.)

fiscal and monetary policies would be helpful in cushioning the macroeconomic impact of the flu. While prices of specific products (e.g., food substitutes for chicken, medicinal supplies) might rise, a pandemic would likely lead to a fall in the overall price level in the short run, on declining consumer demand for services such as tourism, retail sales, hotels, and restaurants. Policy management would become more complicated if the pandemic resulted in strong capital outflows in individual countries. In this case, countries may need to draw down foreign exchange reserves, or secure external assistance.

Financial sector disruptions

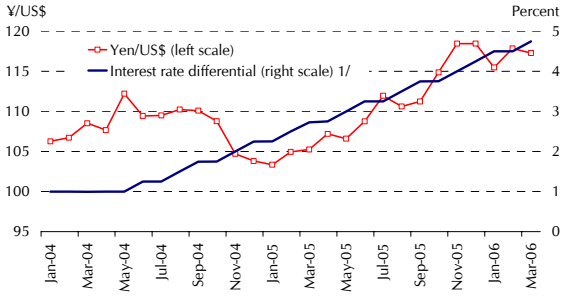
An avian-flu pandemic could cause breakdowns in financial systems. Besides increased cash withdrawals and credit demand in advance of problems, absenteeism of key personnel could result in severe disruptions to payments systems, including breakdowns in check-clearing and securities settlement. It would consequently be important to develop contingency plans in order to minimize these disruptions. Key elements of a plan include building up cash stocks, developing special lines of credit from the central bank and arrangements to ease liquidity recycling among banks, insuring availability and back-ups of key personnel, and creating emergency payments systems. An alternative to face-to-face financial services could be needed were the pandemic to last longer than expected.

Where does Asia stand on financial sector preparedness? In most Asian countries, financial authorities and institutions have developed business continuity plans encompassing some of the points mentioned above. However, these plans were for the most part drawn for general emergencies, and would need to be updated to take into account the particularities of an avian flu pandemic. In contrast, a few economies have prepared avian-flu specific plans, including Hong Kong SAR, Singapore, and Vietnam—although the last focuses on actions to be taken in the health and agriculture sectors.

The Fund is encouraging central banks and financial regulators to ensure that they and private financial institutions have appropriate contingency plans to deal with the consequences of an avian flu pandemic. The Fund is raising awareness by disseminating information, discussing preparations with country authorities, and organizing information- sharing regional seminars for country officials.

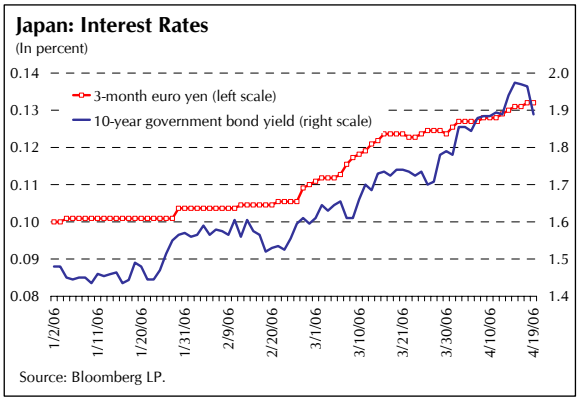
BOX 7. THE END OF QUANTITATIVE EASING IN JAPAN—IMPLICATIONS FOR THE YEN CARRY TRADE IN EMERGING ASIA

Over the past several years, there has been a significant expansion of the yen carry trade as Japan and the U.S. have pursued diverging monetary policies. In Japan, monetary policy has for the past several years been very accommodative in order to end deflation, with short-term interest rates set near zero. At the same time, Fed Fund rates in the United States have been raised by 375 basis points since the beginning of the U.S. tightening cycle in May 2004. The rising spread encouraged yen carry trade activities, whereby international investors borrow yen to invest in higher-yielding currencies[2], including in emerging Asia. It also fueled purchases of foreign bonds by Japanese investors, such as uridashi bonds[3], which resulted in a weakening yen, thereby making the carry trade activities even more profitable, especially at a time of benign international financial environment and declining spreads on emerging market debt and other high-yielding assets.



On March 9, 2006, the Bank of Japan (BoJ) announced that it was exiting from its quantitative easing policy. This decision was taken as the BoJ noted that its necessary conditions for an exit, namely stable positive y/y core CPI inflation and expectations that this would continue, had been met. Accordingly, banks' excess reserves held at the BoJ will be reduced through short-term operations, and the central bank will shift its monetary framework to the targeting of the overnight call rate, which it expects to remain near zero for the time being and to rise gradually in light of economic developments.

The end to quantitative easing in Japan is not expected to have much impact on financial markets. The end of the quantitative easing policy is unlikely to change the underlying conditions for the yen carry trade in a material way: any decline in liquidity will affect only excess reserves held at the BoJ, and the spread with U.S. rates is not expected to diminish soon as the BoJ has committed to maintain short-term interest rates near zero for some time. Any rise in long-term rates may also be contained, as the BoJ intends to continue its purchases of long-term government bonds. Moreover, thanks to consistent signaling from the BoJ, this policy move has been largely discounted by markets. Indeed, since the day of the announcement of the end to the quantitative



[2] Precise estimates of the magnitude of the yen carry trade are difficult, as the trades involve often offshore banks and over-the-counter derivatives for which data are difficult to obtain. But some private estimates indicate that it may be as large as $100 billion.

[3] Uridashi bonds are bonds issued to retail investors in Japan by foreign entities in foreign currency. Total issuance in 2005 was more than Y3 trillion. Given their high yield, the Australian and New Zealand dollars have been the main currencies of issuance.

BOX 7. THE END OF QUANTITATIVE EASING IN JAPAN—IMPLICATIONS FOR THE YEN CARRY TRADE IN EMERGING ASIA (CONT.)

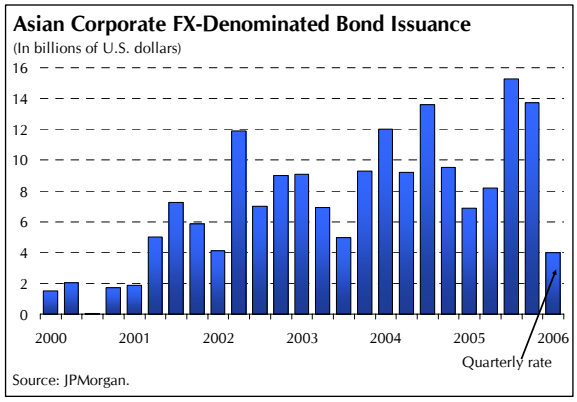
easing policy, the yen has not moved much, and the rise in short and long-term rates has been limited.

However, changes in global financial conditions could still potentially bring about some disorderly unwinding of the yen carry trades. Yen carry trade activities have been attractive thanks to the current benign international financial environment and the relative strength in the U.S. dollar, especially against the yen. However, any change in dollar/yen exchange rate expectations that could arise in case of an earlier end to monetary tightening in the United States, or a rise in emerging market spreads, could potentially affect the attractiveness of these trades, thereby leading to some unwinding and volatility in financial markets. Such a situation occurred in 1998, when triggered by some weakening of the dollar and a rise in emerging market spreads following the Russian crisis, yen carry trades unwound abruptly leading to a rise in volatility in financial markets, and reinforcing the initial rise of the yen against the dollar and the rise in risk aversion. Recent developments in the United States, such as the rise in long-term yields to their highest since the beginning of the monetary tightening, and the impact it could have on emerging market spreads could give cause for caution.

In any event, the impact of an unwinding of the yen carry trades on emerging Asia should be manageable. First of all, since 1998, G-10 supervisors have taken steps to improve the regulation of highly-leveraged activities and therefore, financial market volatility as the yen carry trades are unwound should be limited. But also, emerging Asian economies have become more resilient to shocks on their capital accounts as external vulnerabilities have been reduced: external debt levels have declined, foreign reserves are ample, and exchange rates have become more flexible. Therefore, any unwinding of the yen carry trade is not expected to have much of an impact on regional economies, as long as this is not accompanied by a sharp slowdown of the world economy.

BOX 8. THE BOOM IN ASIAN EXTERNAL CORPORATE BONDS

The Asian external (i.e. fx-denominated) corporate bond market has grown substantially over recent years, taking a significant step away from traditional forms of bank finance. Issuance grew nearly 50 percent between 2003 and 2004, and stayed at around the 2004 level last year. As a result, the stock of non-government external bonds outstanding has risen steadily and at the end of last year had risen by almost three-quarters to reach some $269 billion. This represents a significant change for firms in the region who previously relied for the most part on banks for their (non-internally generated) financing.



The development of local currency markets has grabbed headlines in recent years, but issuance in foreign currencies remains extremely relevant for many firms. Some borrowers, such as exporters, have fx-denominated streams of revenues that they want to match with similarly denominated liability streams. Others need the foreign currency for import-intensive fixed asset investment. Increasingly, Asian corporates have operations outside the countries in which they are headquartered, and may need foreign exchange to service those operations. More broadly, some see the current low global interest rate environment as offering a unique opportunity lock in long-term funding at rates that have not been seen for many years. External bond markets offer the opportunity to place larger, longer-term, and more structured bonds than can be sold in local markets. For the region's bigger firms with heavier borrowing needs, the external markets therefore offer an attractive option.

International Private Debt Outstanding
(In billions of U.S. dollars)

	Dec-97	Dec-01	Dec-05
China			
Financial institutions	11.0	9.6	21.0
Corporates	1.8	2.2	1.0
Total	12.8	11.8	22.0
Hong Kong SAR			
Financial institutions	17.1	27.8	41.6
Corporates	5.5	10.4	15.5
Total	22.6	38.2	57.1
Indonesia			
Financial institutions	14.3	7.9	10.3
Corporates	2.8	0.9	0.3
Total	17.1	8.8	10.6
Japan			
Financial institutions	182.8	198.3	215.5
Corporates	125.4	50.1	59.0
Total	308.2	248.4	274.5
Korea			
Financial institutions	30.6	22.3	52.0
Corporates	18.0	19.4	25.4
Total	48.6	41.7	77.4
Malaysia			
Financial institutions	2.3	3.7	18.5
Corporates	8.9	9.9	6.5
Total	11.2	13.6	25.0
Philippines			
Governments	4.6	3.1	4.3
Financial institutions	3.9	4.5	5.3
Corporates	8.5	7.6	9.6
Singapore			
Financial institutions	2.8	11.7	24.8
Corporates	1.5	6.0	10.0
Total	4.3	17.7	34.8
Taiwan Province of China			
Financial institutions	1.2	1.6	5.0
Corporates	5.2	6.5	19.3
Total	6.4	8.1	24.3
Thailand			
Financial institutions	7.8	5.6	4.4
Corporates	4.8	3.3	3.8
Total	12.6	8.9	8.2
Total ex. Japan			
Financial institutions	91.7	93.3	181.9
Corporates	52.4	63.1	87.1
Total	144.1	156.4	269.0

Source: Bank for International Settlements.

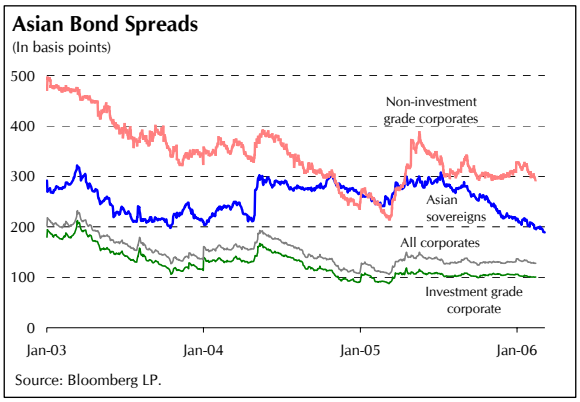
For many borrowers, it is important to have a multiplicity of sources of finance should any one of their traditional sources dry up temporarily. They are therefore keen to keep their names known on international, as well as local, markets. Governments have been supportive of these strategies and have been willing to issue sovereign external debt that provides a risk-free benchmark against which their corporates can be priced. Meanwhile, local interest rates in several key

BOX 8. THE BOOM IN ASIAN EXTERNAL CORPORATE BONDS (CONT.)

Asian countries have been ratcheted up in recent quarters as the authorities there bear down on inflation. One of the advantages of local market borrowing has therefore waned and borrowers have turned again to the external market.

External debt outstanding is now somewhat more balanced across the region (see table). Korean quasi-sovereigns and banks have been very active issuers over recent years, as they were before the crisis, and Korea has retained its position as having the largest stock of external bonds. The sovereign has been active in maintaining a benchmark curve, and Korean borrowers are widely recognized names in the market. The region's financial centers of Hong Kong SAR and Singapore have shown large rises in issuance in recent years, principally from their financial institutions as economic recovery has become more established, and the earlier problems of non-performing loans have been tackled.[2] Taiwan Province of China has shown a particularly rapid rise in external issuance, driven mainly by a surge in borrowing by technology companies.[3]

Demand has been strong and the spreads on benchmark corporate bonds have tightened steadily over recent years. The main factors driving external corporate spreads tighter are the generally supportive environment for emerging markets, the strength of the "Asian bid"[4], and growth in the region's of savings and investment institutions. Asia is seen as having good supply-demand dynamics, low volatility, and limited risk of credit deterioration driven by M&A activity (which is often seen as pushing up debt levels to the detriment of bondholders). That said, the region's external fixed income market is generally seen as expensive compared with other regions, and prospects of benefiting from ratings upgrades are often seen as higher in other parts of the world.



The development of the Itraxx Asia index of regional credit default swaps has made it much easier and cheaper for investors to hedge or adjust their positions. It has therefore made it possible to express a much broader range of credit views than the traditional buy-and-hold, 'long-only' investors that have dominated in the past. Analysis of credit default swaps, and the 'basis' (broadly, the gap) between CDS spreads and the spreads on the underlying bonds are an integral part of credit analysis in the region.

Outlook and Risks

Looking ahead, a number of trends will require careful attention. First, the global credit cycle is

[2] For these borrowers, a particular attraction of the external debt market is the ease with which they can offer subordinated debt, including "upper tier 2" capital.

[3] For high-tech companies, the possibility of issuing convertible bonds is important as it allows them to capture some of the valuable option premiums on their shares. It is easier to issue convertible bonds in the external market, where investors are familiar with these structures, than in the local markets.

[4] The "Asian Bid" refers to the deposits that the regional banks hold in excess of those they need to meet loan demand and reserve requirements. Much of these are invested in debt from their own country, or other countries in the region.

(continued…)

BOX 8. THE BOOM IN ASIAN EXTERNAL CORPORATE BONDS (CONT.)

turning, and Asian corporates are considered to be in the vanguard of this trend as the region has been growing rapidly for several years. Asia's ratings upgrade-to-downgrade ratios have compared favorably with other emerging market regions over recent years, and are expected to hold up in coming quarters, but there will come a point at which the trend will turn. Second, some analysts argue that the Asia bid is weakening as issuance continues at a strong pace and banks are increasingly finding other uses for their surplus funds. Korea, Thailand, and Malaysia are seen as the countries where the appetite for external corporate debt might fall most. Third, it is not yet clear when Asian banks will adopt the Basle II ratings approach. When this happens, some analysts believe it will require an increase in the capital requirements for many banks as they have relatively more of the assets that will attract higher capital charges under Basle II. Some argue that banks in Indonesia, the Philippines, and Thailand will face the largest challenges during the transition to Basle II.

The main risks for holders of Asian external corporate bonds are a broader sell-off in emerging market assets amid a general increase in risk aversion. A fall-off in the prices of a broad range of commodities are also potentially negative for the region and for its corporates, especially if this is as a result of a slowdown in the pace of global growth. Even so, this is likely to affect Asian external credits less than credits in some other countries that have been more heavily favored during the run-up of emerging market assets in recent months. Some even believe the region's external bonds will display some defensive qualities in the event of a sell-off in emerging market assets.

BOX 9. REGIONAL FINANCIAL INTEGRATION INITIATIVES—AN UPDATE

Recent efforts to advance regional financial integration have focused on two areas. First, local currency bond funds are being introduced under the Asian Bond Market Initiatives (ABMIs). And second, existing arrangements to swap foreign exchange reserves in case of liquidity crises are being expanded under the Chiang Mai Initiative (CMI).

Asian Bond Market Initiatives

Historically, bond markets have not played much of a role in regional financial systems. This is largely because governments have traditionally maintained strong fiscal positions and have not had to issue much debt, while large corporations have been able to secure sufficient financing at low interest rates from commercial banks. But bond market underdevelopment also reflects deficiencies in market infrastructures and regulatory environments. It is these deficiencies that the Asian Bond Market Initiatives aim to address, in the expectation that more developed local bond markets could reduce countries' exposure to maturity and exchange rate risks.[2]

A key aspect of the Asian Bond Market Initiatives has been the development of the Asian Bond Funds (ABFs). The first ABF aimed at stimulating demand for U.S. dollar bonds issued by members of the Executive Meeting of East Asia and Pacific (EMEAP) by using the region's foreign exchange reserves to buy them.[3] The second ABF, launched in June 2005, aims to promote local currency bond markets, by establishing a Pan-Asian Bond Index Fund (PAIF) and eight single-market funds (SMFs).[4] Initially, the EMEAP authorities invested $1 billion in the PAIF and are committed to invest a total of $1 billion in the SMFs.

These funds have now been opened to the public, with the aim of offering investors a low-cost/low-risk way of entering local bond markets. The PAIF is now trading on the Hong Kong Stock Exchange as an open-ended bond fund, managed privately and benchmarked to iBoxx Pan-Asia Index. As of mid-April 2006, about three-fifths of the index was comprised of bonds issued in Korea, Singapore, and Hong Kong SAR, giving it an average credit rating of A-/BBB+ and duration of four years.[5] As for the eight SMFs, three have been listed so far as exchange-traded funds (Hong Kong SAR, Malaysia, and Singapore), with the Thailand fund also recently publicly offered. In addition, SMFs have been set up (but not yet publicly offered) in Korea and Indonesia, with China and the Philippines expected to follow by mid-2006.

Both the PAIF and SMFs have been well received by the market, but initial private investments have been small. The net asset value of the PAIF was just $1.2 billion as of mid-April 2006 (including the $1 billion from EMEAP), and daily trading volume has been low. However, the three SMFs funds have been growing rapidly since their initial listings, since they provide an attractive way for investors to enter specific markets of interest.

Despite this slow start, the ABFs have also spurred bond market development. For instance, the ABF-II has led to the creation of local-currency bond indices which can be used to benchmark

[2] The Asian Bond Market Initiatives comprise the Asian Bond Fund, the ASEAN+3 Asian Bond Markets Initiative, the APEC Regional Bond Market Initiative, and the Asia Cooperation Dialogue Asian Bond Market Initiative.

[3] The members of EMEAP are: Australia, China, Hong Kong SAR, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore, and Thailand.

[4] The PAIF and eight SMFs exclude in local currency bonds issued in Japan, Australia, and New Zealand.

[5] Country weights in this index take into account market capitalization, liquidity, and openness, as well as a country's sovereign rating and trading infrastructure, and are rebalanced monthly.

BOX 9. REGIONAL FINANCIAL INTEGRATION INITIATIVES—AN UPDATE (CONT.)

investment funds, including the ABF-II SMFs. The ABFs have also encouraged the establishment of other exchange-traded funds in several countries, and are expected to foster development of local-currency fixed-income derivatives, including bond futures.

Meanwhile, on the supply side, the Asian Bond Market Initiatives continue to be aimed primarily at improving market efficiency and activity. Steps have been taken over the past year to extend the benchmark yield curve (Indonesia, Korea, and Malaysia), improve trading infrastructure (China and Thailand), and attract offshore investors (China, Malaysia, and Vietnam).[6] Further steps envisaged under a progress report issued by ASEAN+3 group in November 2005 include: (i) creating new securitized debt instruments; (ii) studying new credit guarantee mechanisms, including possible regional ones; (iii) examining regional settlement issues, in particular impediments to cross-border bond investment and issuance; and (iv) enhancing the credibility of local credit ratings agencies.

Chiang Mai Initiative

As for the CMI, this initiative continues to expand and evolve. The CMI aims to reduce the risk—and alleviate the consequences—of liquidity crises by establishing a network of bilateral swap arrangements between select ASEAN members and China, Japan, and Korea (the +3 countries).[7] In Istanbul in May 2005, the ASEAN+3 agreed to double the size of these arrangements, resulting in a $30 billion increase over the past year, to $71.5 billion. In addition, the draw-down mechanism has been changed. The amounts that can be activated without linkage to an IMF facility has been increased from 10 percent of the maximum amount of drawing to 20 percent, in the event that swap-providing countries deem the swap-requesting country as facing short-term liquidity problems owing to sudden market irregularities.

The Istanbul Agreement also laid out a path for further development. Eventually, the CMI could be "multilateralized", by establishing a clearly defined process for activating the swaps and a collective decision-making mechanism for doing so, and potentially also by pooling some of the group's reserves. To lay the groundwork for this, the ASEAN+3 is planning to develop its regional surveillance, in concert with the surveillance provided by existing institutions, such as the IMF. Over the longer term, a further objective is to make more intensive use of local currencies in the CMI framework.

Following Istanbul, a study group was set up to consider possible routes toward multi-lateralization. This group submitted a report to the ASEAN+3 Finance and Central Bank Deputies meeting in April 2006, and further discussions will be held in the ASEAN+3 Finance Ministers meeting in India, in May this year.

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[6] See the Asian Development Bank's *Asia Bond Monitor* (November 2005) for further details.

[7] While all ASEAN members can participate in the CMI, the newest ones (Cambodia, Lao PDR, Myanmar, and Vietnam) in principle have access to concessional foreign assistance.

BOX 10. ARE REGIONAL TRADE AGREEMENTS IN ASIA OPEN OR CLOSED BLOCS?

Preferential trade agreements are proliferating around the world, including in the Asia and Pacific region. At least 23 such agreements among regional economies have entered into force in the past five years, and currently about 30 additional ones are under negotiation.

Conventional economic theory questions the benefits of Regional Trade Agreements (RTAs). In principle, preferential trade agreements are economically inferior to nondiscriminatory trade liberalization on most-favored-nation (MFN) basis. Indeed, there is a risk that they can easily turn into closed blocs, preventing progress toward further multilateral liberalization. RTAs could divert resources away from multilateral trade liberalization, including in the context of WTO negotiations, and could create incentives for regional trade partners to lobby against any MFN-based reforms that would reduce the value of their tariff preferences, thus undermining prospects for future broader trade reforms.

Consequently, it is useful to ask whether the recent proliferation of preferential agreements in Asia is a healthy development, or whether it will result in an unmanageable "noodle bowl" regionalism in the future, more likely to divert trade than to create it.

The results of a recent IMF staff study shed some light on this question. They suggest that trade among members in Asia's RTAs has expanded very rapidly in recent years—but not at the

Preferential Trade Agreements in the Asia and Pacific Region, 2005[1]

Regional Trade Agreements	Bilateral Trade Agreements
Already in force:	
AFTA (ASEAN Free Trade Area), 1992, 1993	Australia-New Zealand (CER, Closer Economic Cooperation, 1983, 1983)
ASEAN-China Free Trade Agreement, 2004, 2005	Australia-Singapore, 2003, 2003
Bangkok Agreement, 1975, 1976	Australia-Thailand, 2004, 2005
Pacific Island Countries Trade Agreement (PICTA), 2001, 2001	Australia-United States, 2004, 2005
SAARC Preferential Trade Agreement (SAPTA), 1993, 1995	China-Hong Kong SAR, 2003, 2004
Trans-Pacific Strategic Economic Partnership Agreement (TPSEPA), 2005[2]	China-Macao SAR, 2003, 2004
	China-Thailand, 2003, 2003
	India-Sri Lanka , 1998, 2001
	India-Thailand, 2003, 2004
	Japan-Mexico, 2004, 2005
	Japan-Singapore, 2002, 2002
	Korea-Chile, 2003, 2004
	Korea-Singapore, 2005, 2006
	Lao PDR-Thailand, 1991, 2001
	New Zealand-Singapore, 2000, 2001
	New Zealand-Thailand, 2005, 2005
	Singapore-European Free Trade Association, 2002, 2003
	Singapore-Jordan, 2004, 2005
	Singapore-United States, 2003, 2004
	Sri Lanka- Pakistan, 2005, 2005
	Vietnam-United States, 2000, 2001

[1] The year in parenthesis refers respectively to the year of signing of the agreement and the year it became into force.
[2] Not in force yet.

BOX 10. ARE REGIONAL TRADE AGREEMENTS IN ASIA OPEN OR CLOSED BLOCS? (CONT.)

expense of trade with nonmembers.[2] In fact, trade among members seems to have grown in tandem with trade with other regions of the world so far. However, looking forward, a further proliferation of RTAs runs the risk of becoming a substitute for multilateral trade liberalization. To guard against this risk, Asian countries would be well-advised to continue to pursue broad-based trade liberalization both at the regional level and in the context of the WTO.

A gravity model is used to assess the impact of RTAs on the level and direction of trade. The model is based on the idea that trade between two countries is analogous to the gravitational force exerted between two objects. Thus, trade is a function of the countries' mass (in this case, GDP and GDP per capita) and the distance between them. Theories of trade under perfect competition can be used to justify the gravity equation: a country is more likely to trade with economically larger countries that produce a greater variety of goods to offer, while GDP per capita also has a positive effect on trade, since as countries become more developed, they tend to specialize more and, therefore, trade more.

The following gravity model was estimated in line with Wei and Frankel (1997):[3]

$$LnTrade_{ij} = \alpha + \beta_1 Ln[GDP_i GDP_j] + \beta_2 Ln\left[\frac{GDP_i}{Pop_i}\frac{GDP_j}{Pop_j}\right] + \beta_3 Ln[Dist_{ij}] + \beta_4 Ln[ADJ_{ij}] + \beta_5 Ln[Lang_{ij}] + \gamma_1 RTA2_{ij} + \gamma_2 RTA1_{ij} + u_{ij}$$

The dependent variable is bilateral trade (exports plus imports) between country pairs. The independent variables, beside GDP and GDP per capita, are: distance, common border, common language and two dummy variables that represent common membership in a regional agreement: *RTA*2, where the suffix 2 implies that both countries, *i* and *j*, are members of the same RTA, and *RTA*1, where the suffix 1 implies that either *i* or *j* belongs to the tested RTA.

The coefficients of *RTA*2 and *RTA*1 can be interpreted as follows:

- A positive coefficient for the *RTA*2 variable indicates that an RTA tends to generate more trade among its members than any random country pair that does not belong to any RTA.
- A positive coefficient on the RTA1 variable indicates that trade between an RTA member and a nonmember is higher than one would expect given their economic size, distance and other geographic and cultural characteristics; this could be taken as an evidence of an open trade bloc.
- A negative coefficient on the *RTA*1 dummy, instead, implies that trade between a member of an RTA and a nonmember is smaller, on average, than that between two otherwise similar countries that are not RTA members, which may indicate possible trade diversion.
- The difference between RTA2 and RTA1 dummies (when positive) can be interpreted as a measure of intraregional bias: how much more an RTA member trades with another member than with a nonmember.

The study considers the following preferential trade agreements with Asia: the Australia-New Zealand Closer Economic Relationship (CER), ASEAN, and the Agreement on South Asian Association for Regional Cooperation (SAARC) Preferential Trading Arrangement (SAPTA), which includes: Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka; and the following RTAs outside the region: the Eurasian Economic Community (EAEC), which includes: Belarus,

[2] Based on Tumbarello (2006): "Are Free Trade Agreements in Asia Building or Stumbling Blocs?" (forthcoming).

[3] Wei, S., and J. Frankel (1997), "Open versus Closed Regional Trade Blocks", in *Regionalism versus Multilateral Trade Arrangements*, Ed. By T. Ito and A. Krueger (Chicago University Press).

BOX 10. ARE REGIONAL TRADE AGREEMENTS IN ASIA OPEN OR CLOSED BLOCS? (CONT.)

Kazakhstan, the Kyrgyz Republic, the Russian Federation, and Tajikistan; the European Union—comprising 15 members (EU-15): Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom; the Southern Common Market (Mercosur) which comprises: Argentina, Brazil, Paraguay, and Uruguay; and the North American Free Trade Agreement (NAFTA), which includes: Canada, Mexico and the United States.

Two different estimates were run. The first one includes only preferential trade agreements within Asia: CER, ASEAN, and SAPTA, while regression 2 includes also RTAs outside the region: the EAEC, the EU-15, Mercosur, and NAFTA. The data set covers 182 countries for a total of 45,863 country pairs for the period 1993-2003. The sample includes data for 1993, 1996, 1999, 2002, and 2003. Bilateral trade data are extracted from the UN COMTRADE database. An OLS panel regression technique, which allows for year-specific effects, is employed.

The results suggest that during 1993-2003 membership in major RTAs in Asia (CER, ASEAN and SAPTA) does not appear to have led to trade diversion. While trade has grown rapidly among members for RTAs, this was not associated with any decrease in trade with nonmembers, as the signs of each of the *RTA*2 and *RTA*1 dummies are positive when statistically significant. More specifically:

- **Bilateral intra-ASEAN trade is estimated to be 54 percent greater than the bilateral trade of ASEAN members with non-members** [exp(1.33-0.90)-1 = 0.54]. CER countries show an even higher degree of intra-regional trade: Australia and New Zealand trade about 2.4 times more between themselves than with other countries [exp(1.35-0.11)-1 = 2.45], while the intra-SAPTA trade is estimated to be around 63 percent greater than the bilateral trade of SAPTA members with non-members (Regression 1).

Pooled Estimations of the Gravity Model, 1993-2003

	(1)	(2)
Ln GDP	0.98	0.99
	(0.000)***	(0.000)***
ln GDP per capita	0.11	0.11
	(0.000)***	(0.000)***
ln distance	-1.30	-1.30
	(0.000)***	(0.000)***
common border	0.71	0.68
	(0.000)***	(0.000)***
common language	1.02	1.07
	(0.000)***	(0.000)***
ASEAN 1	0.90	0.89
	(0.000)***	(0.000)***
ASEAN 2	1.33	1.34
	(0.000)***	(0.000)***
CER 1	0.11	0.08
	(0.093)*	-0.26
CER 2	1.35	1.26
	(0.093)*	-0.116
SAPTA 1	0.21	0.21
	(0.000)***	(0.000)***
SAPTA 2	0.69	0.72
	(0.000)***	(0.000)***
EU-15 1	...	0.09
	...	(0.000)***
EU-15 2	...	-0.87
	...	(0.000)***
EAEC 1	...	0.03
	...	-0.501
EAEC 2	...	3.12
	...	(0.000)***
MERCOSUR 1	...	0.11
	...	(0.005)***
MERCOSUR 2	...	0.47
	...	-0.152
NAFTA 1	...	-0.44
	...	(0.000)***
NAFTA 2	...	-0.74
	...	-0.114
Constant	13.05	12.98
	(0.000)***	(0.000)***
Observations	45,863	45,863
Adj. R-squared	0.737	0.739

Source: IMF Staff estimations.

P-values in parenthesis. *, ** and *** denote significant at 10%, 5% and 1% level.

- **Compared to other RTAs around the world, the results also suggest that the members of RTAs in Asia—especially ASEAN—showed a higher degree of openness with nonmembers than other RTA countries outside the region do**. In particular, ASEAN countries trade 144 percent more [(exp 0.89)-1 = 1.44] with outside countries than one would predict given their size, GDP per capita income, and geographical and cultural characteristics. The EU-15 and Mercosur countries trade, respectively, 10 percent and 12 percent more with outside countries than the model's prediction, while NAFTA countries trade on average 33 percent less with nonmembers than one would expect given the standard gravity determinants.

BOX 10. ARE REGIONAL TRADE AGREEMENTS IN ASIA OPEN OR CLOSED BLOCS? (CONT.)

The last result, which is in line with the findings of previous studies,[4] can be explained by the presence of complementarily in production (i.e., NAFTA countries do not have the same comparative advantages), and by the fact that, in the case of Mexico, the majority of trade takes place under preferential rules.

One main reason that could explain why RTAs in Asia appear to have been more trade-creating than other RTAs to date is the fact that regional trade integration in Asia followed a long period of unilateral liberalization during the 1980s and 1990s. Subsequently, regional integration efforts proceeded in parallel with multilateral liberalization. In fact, many Asian countries acceded to the WTO in the mid-1990s, and lowered their MFN tariff rates substantially, thereby limiting the risk of possible trade diversion under subsequently agreed RTAs. Moreover, as reported recently by Baldwin[5], the implementation of ASEAN Free Trade Area (AFTA) appears to have had limited practical impact on trade flows to date, with only a small fraction of intra-ASEAN trade benefiting from AFTA's preferences. One likely explanation for this is that the administrative costs associated with verifying that AFTA's rules of origin have been observed may often be perceived to be too large compared with the differential between the Common Effective Preferential Tariff (CEPT) and the corresponding MFN tariffs.[6]

Simple Average MFN Tariffs[1]

(In percent)

	1997	2005
ASEAN	10.1	8.8
CER	5.5	3.3
EAEC	10.9	8.4
EU-15	10.0	6.5
MERCOSUR	11.4	11.2
NAFTA	8.8	9.5
SAPTA	25.1	18.0
Memorandum item:		
World	15.5	11.4

Source: IMF Trade Policy Information Database (TPID).
[1] Average among country members.

Going forward, Asian countries need to recognize the risks associated with an excessive focus on regional trade arrangements that are no longer matched by multilateral liberalization. As noted in a number of recent studies and reports, the recent trend toward the negotiation and signing of multiple bilateral trade arrangements, including between ASEAN and other major Asian economies, could threaten the multilateral trading system, if regional integration is perceived as a substitute for multilateral liberalization.[7] Therefore, Asian countries would be well-advised to continue pursuing concerted trade liberalization in accordance with the MFN principle, rather than focusing on regional trade preferences only. In particular, countries should guard against participation in multiple memberships in bilateral and regional trade agreements, which could have mutually inconsistent rules of origin that can substantially

[4] Wei, S., and J. Frankel (1997).

[5] Baldwin, R., 2006 "Managing the Noodle Bowl", CEPR Discussion Paper, London.

[6] Rules of origin are established in free trade agreements to ensure that only goods originating in participating countries enjoy preferences. However, the administrative costs associated in proving conformity to these rules may lead to low utilization of the preferential trade scheme. Moreover, rules of origin can lead to trade diversion if they oblige partners to buy higher priced intermediate goods from a partner rather than on the lower-priced world markets.

[7] Baldwin op.cit. and AsDB, Asian Development Outlook 2006.

(continued…)

BOX 10. ARE REGIONAL TRADE AGREEMENTS IN ASIA OPEN OR CLOSED BLOCS? (CONT.)

complicate production and sourcing decision by firms. Continuing to strengthen the outward-oriented policy vis-à-vis the rest of the world would be the best way to ensure that the Asia and Pacific region will reap the benefits from its ongoing international integration to the fullest extent possible.

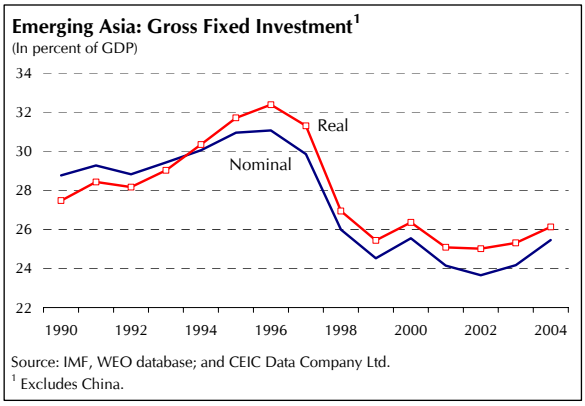
BOX 11. ASIA'S INVESTMENT DECLINE: IS IT REAL?

Investment in Emerging Asia outside China has declined sharply since the 1997 financial crisis. For example, comparing 1992-96 with 2000-04, private investment declined by 5-18 percentage points of GDP in Hong Kong SAR, Korea, Singapore, Malaysia and Thailand. This prolonged, sizeable, and broad-based decline raises an important question: is the investment decline real or has it simply reflected a fall in the price of capital equipment relative to the overall price of output?

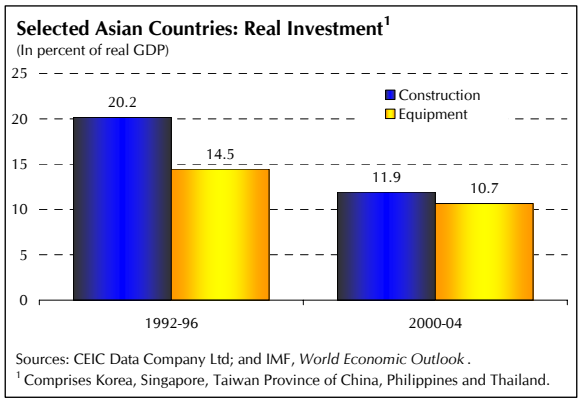
To answer this question, it is necessary to first consider some simple identities. The nominal investment ratio is $\frac{I}{Y} = \frac{P_I Q_I}{P_Y Q_Y}$ where P_I = price index for investment, Q_I = constant price quantity of investment, P_Y = price index for total output (GDP), and Q_Y = constant price of output. Thus a fall in $\frac{I}{Y}$ could reflect a decline in $\frac{P_I}{P_Y}$, or a fall in the relative price of investment goods.

A fall in the relative price of capital goods has in fact been occurring globally. Advances in technology have reduced the price of capital goods, particularly relative to the price of other types of goods. In the United States, for example, the ratio of the implicit price deflator of equipment and software to the overall GDP deflator declined by 40 percent between 1990 and 2004. Meanwhile, the relative overall price of investment goods has declined in emerging Asia excluding China, but much more moderately (only about a fourth as large). There are many possible reasons why the relative price decline has been more moderate in emerging Asia than in the United States, including considerable differences in statistical coverage and methodology (U.S. data are chain weighted and include hedonic adjustments for quality changes) and differences in the mix of investment goods.

In emerging Asia, real and nominal investment ratios have displayed broadly similar trends, suggesting that the investment slump is indeed real. During the crisis, the real investment ratio fell more sharply than the nominal ratio, but it has since recovered more rapidly. While the real ratio for the region as a whole is close to its 1990 level, this mainly reflects a sharp rise for India; for other countries, the ratio was on average about 5 percentage points of GDP lower in 2004 than in 1990. Moreover, the ratio of equipment investment to GDP has fallen *more* in real than in nominal terms.



It is unclear whether technical progress should result in a lower real investment rate. If the mix of capital goods has shifted towards more productive items, a lower aggregate investment rate would be warranted. At the same time, however, high-tech capital goods such as computers tend to depreciate faster than other



BOX 11. ASIA'S INVESTMENT DECLINE: IS IT REAL? (CONT.)

capital goods, implying a need for a *higher* real investment ratio. Thus, technological innovation has an ambiguous effect on the optimal investment rate. Indeed, the nominal investment ratio in the G-7 countries actually trended *upwards* slightly over most of the 1990s, and the U.S. nominal investment ratio is presently somewhat *above* its 1990–2005 average.