HALF-YEARLY MONETARY AND FINANCIAL STABILITY REPORT

December 2006

This Report reviews statistical information between end-May and end-November 2006.

Summary

Strong non-inflationary growth continues to characterise Hong Kong's economy. During the first three quarters of 2006, real GDP grew by 6.8% on average relative to the same period in 2005, while prices as measured by the composite consumer price index (CCPI) advanced 2.0%. The unemployment rate fell to 4.5% of the labour force in October compared to 5.2% at the end of 2005.

In terms of components of GDP, exports grew by 9.5% and investment 8.5% while private consumption expanded less rapidly at 4.7%. The external sector thus constitutes a major source of growth in the economy, consistent with the pattern that we have observed in the past. Looking ahead, this external dependence implies that the outlook for the world economy will, to a large extent, shape the prospects for Hong Kong.

The evolution of the inflation rate continued to be dominated by the rental component, which reflects the behaviour of rental contracts with a relatively stable lag of about 24 months. As real estate prices have levelled off, this source of inflation in the economy will diminish over time. Meanwhile, there has been only a modest pick-up in prices of domestically produced goods and services as rapid growth of labour productivity has meant that increases in labour compensation have not translated into higher unit labour costs.

Overall, there are no apparent signs of imbalances in the economy. Monetary conditions as measured by our 'Monetary Conditions Index' can be characterised as broadly neutral, and growth rates of monetary and credit aggregates are consistent with the evolution of nominal GDP. The behaviour of asset prices also does not cause any serious concerns. While it is true stock market prices have increased rapidly during the year, real estate prices have levelled off since the beginning of 2005 and our measure of stress in this market paints a benign picture. (Section 2.10)

Our analysis of banking sector stability also points to a stable environment. In Sections 3.6-3.9 we show that profitability and capitalisation are strong, that asset quality has improved throughout the year, and that the probability of multiple defaults in the banking sector as well as in the corporate sector is low. We conclude that the banking and financial system as a whole is healthier than it has been in the past 10 years or so.

The outlook for 2007 will depend on external factors, since the real economy is heavily dependent on export demand, and our

financial conditions are dominated by monetary policy in the United States and the evolution of the US dollar in the foreign exchange markets. Consensus forecasts for the world economy, as well as projections by the International Monetary Fund, point towards a modest slowdown in growth in our main export markets in the coming year. While there are differences between the forecasting institutions, there appears to be a consensus that the reduction will be somewhere between 0.5 and 0.8 percentage points in the Unites States, the Euro area, and Japan, and the possibility of up to a one percentage point reduction in growth in Mainland China. In view of Hong Kong's sensitivity to the external environment, these projections suggest a tapering off in domestic growth in 2007. Improved labour market conditions as well as lingering positive wealth and balance sheet effects should support domestic consumption, however, cushioning the decline in economic growth. Consistent with these arguments, the latest market consensus forecasts for GDP growth in Hong Kong range from 4.3% to 6.0% with a mean of 5.1%.

The inflation outlook is influenced by two opposing forces; on the one hand the moderate tapering off in the increase in the rental component, and on the other the continuing increases in prices of domestically produced goods together with the possibility of higher import prices should the HK dollar weaken relative to our main trading partners as a result of a generalized weakening of the US dollar. The mean consensus forecast suggests an inflation rate of 2.6% for 2007 as a whole.

These projections are subject to a margin of error due mainly to the uncertainty surrounding the evolution of the US economy. While the consensus suggests a soft landing, some commentators point to the possibility of a more significant deceleration as a result of a pronounced slowdown in the housing and construction sectors. Simulations with our econometric models indicate that while a significant slowdown in the US would reduce growth in Hong Kong perceptibly, the effect would not be dramatic and would certainly not endanger monetary and financial stability. (See section 4.3)

The uncertainty associated with the inflationary outlook is largely due to the effect of a greater than expected depreciation of the US dollar, which would bring about increased prices of imported goods. However, the quantitative effect is likely to be moderate. For example, if the US dollar depreciates by 10% in trade-weighted terms in 2007, compared with the baseline consensus forecast of 4.5% depreciation, then our model predicts Hong Kong's inflation will be a quarter of one percentage point higher than the baseline.

In financial markets, the main uncertainty for Hong Kong relates to the interest rate outlook. Under the Linked Exchange Rate system our interest rates typically respond to the evolution of policy rates in the United States. While the US authorities have paused the tightening cycle that began over two years ago, there is a possibility that some increases will still be implemented if inflationary pressures do not abate rapidly. In addition, as Hong Kong dollar interest rates are currently some one hundred basis points below the corresponding US dollar rates, it is possible that local rates will increase if current liquid market conditions change. Financial market participants, mortgage lenders and borrowers in particular, should be aware of the corresponding basis risk. (See our analysis in Section 3.7 and Box 8)

Starting with this report we have expanded our coverage of the Mainland China economy. (See Section 1.5-1.7 as well as Boxes 1-4) As the role of Mainland China in the world economy increases, we hope that our analysis will provide useful information for the reader interested not only in its impact on the Hong Kong economy, but also on the region and the world more generally.

Half-Yearly Monetary and Financial Stability Report
December 2006

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1. Global and regional setting

External environment

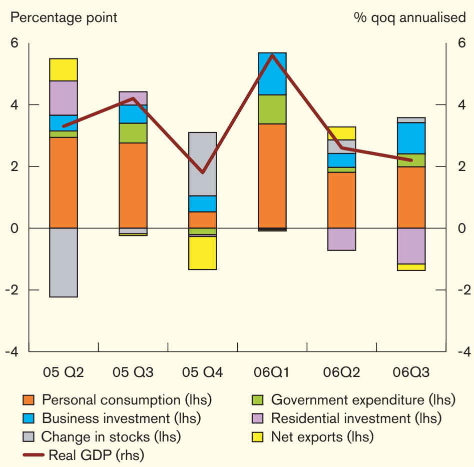
Global growth was more balanced in the third quarter. While it slowed in the US along with the housing market adjustment, growth picked up in East Asia, and remained healthy in the euro area and Japan, albeit at a more moderate pace. Recent indicators point to a further slowing in economic activity in the US. Reflecting this, there are signs that growth in industrial production is beginning to moderate in most of the regional economies.

1.1 United States

The US economy has slowed significantly since the June Report. Real GDP grew by 2.2% in Q3, down from the 2.6% in Q2 and 5.6% in Q1. The slowdown was driven by a continued double-digit drop in residential investment and a worsening trade balance, with the fall in housing construction reducing overall growth by more than one percentage point. Net exports subtracted another 0.2 percentage point as the rise in import growth more than offset the increase in export growth (Chart 1.1).[1] The share of Mainland China and Hong Kong in total merchandise imports increased to 15.3% on a 12-month rolling basis from 15.1% in the last Report. In contrast, growth in private consumption and business investment recorded a healthy rebound from their respective declines in Q2. Business and consumer spending together contributed around 3 percentage points to the Q3 growth. On balance, monthly indicators point to a moderate pace of expansion in Q4 (Table 1.A).

Retail sales growth fell sharply in October and job prospects have deteriorated. While the November ISM Purchasing Managers' Index for the non-manufacturing sector picked up to its highest level since the June

Chart 1.1
US: contributions to GDP growth



Source: Bureau of Economic Analysis.

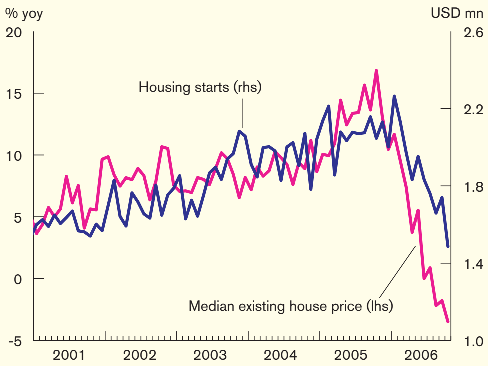
Table 1.A
US: monthly indicators of activity

	Jul	Aug	Sept	Oct	Nov
Manufacturing PMI	54.7	54.5	52.9	51.2	49.5
Non-manufacturing PMI	54.8	57.0	52.9	57.1	58.9
Industrial production (% 3m-on-3m)	1.6	1.7	1.0	0.5	n.a.
Durable goods orders (% 3m-on-3m)	0.2	-0.1	2.3	2.0	n.a.
Capital goods orders, nondefense (% 3m-on-3m)	1.8	1.8	3.5	2.2	n.a.
Retail sales (% 3m-on-3m)	1.0	0.8	0.9	0.2	n.a.
Real personal consumption expenditure (% 3m-on-3m)	0.8	0.8	0.7	0.5	n.a.
Real disposable income (% 3m-on-3m)	-0.3	0.3	0.9	1.4	n.a.
Change in nonfarm payroll (thousand persons)	123	230	203	79	132
Unemployment rate (%)	4.8	4.7	4.6	4.4	4.5
Consumer confidence (index)					
Conference Board	107.0	100.2	105.9	105.1	102.9
Job prospects1	9.0	3.4	5.3	3.8	3.4
University of Michigan	84.7	82.0	85.4	93.6	92.1

Note 1: Jobs plentiful less jobs hard to get.
Source: Bloomberg.

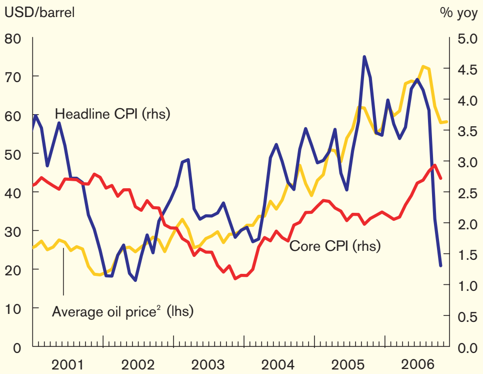
[1] For the US, euro area, Japan and non-Japan Asia (ex-Mainland China), all quarterly real GDP percentage changes are on a seasonally adjusted annualised basis, unless otherwise stated.

Chart 1.2
US: Housing market activity indicators



Source: US Department of Housing and Urban Development.

Chart 1.3
US: Headline and core CPI inflation[1]



1. Excluding food and energy.
2. Simple average of WTI, Brent and Dubai oil prices.

Report, amid lower energy prices and a firm labour market, the manufacturing index fell below 50 to 49.5, suggesting contraction in manufacturing activity for the first time in more than three years. Nevertheless, favourable fundamentals might cushion the impact of a slowdown in domestic demand-average hourly earnings have continued to rise at a fast pace; long-term interest rates are still at low levels; and corporate profit growth remains solid.

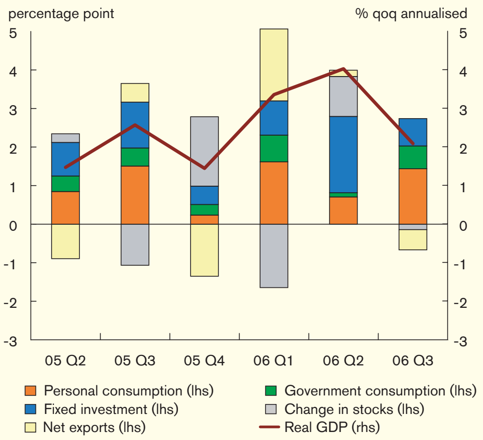
That said, the housing market developments present a key downside risk to the near-term growth outlook. Housing activity indicators have shown broad-based deterioration in 2006. The October existing home sales and new home sales dropped 14% and 27% respectively from their peaks in mid-2005, and housing starts fell to their lowest levels in more than six years in the same month (Chart 1.2). Looking ahead, although a relatively gradual adjustment is expected, a sharper-than-expected fall-off in housing activity and house prices could trigger a larger-than-expected decline in consumption and investment growth.

Inflation risks have increased since the June Report, although signs of easing emerged at the end of Q3 (Chart 1.3). While headline inflation has largely tracked the recent fall in oil prices, measures of core inflation have been trending upward, driven by higher owners' equivalent rent. Compared with their levels of around 2.0% year on year in the last Report, core PCE and core CPI inflation rose to 2.5% and 2.9% in August and September respectively, before easing to 2.4% and 2.7% in the following month, along with the subsequent fall in oil prices. Despite a slowing economy, inflationary pressures remain, against the background of rising unit labour costs and high resource utilisation in both the labour and the product markets.

1.2 Euro area and UK

The euro area real GDP increased by 2.1% in 2006 Q3, broadly in line with its potential, despite slowing from the above-trend growth of 4.0% in Q2. The moderation reflects flat growth in the euro area's second-largest economy, France, although the German economy expanded at a solid 2.6% in Q3, following the

Chart 1.4
Euro area: contributions to GDP growth



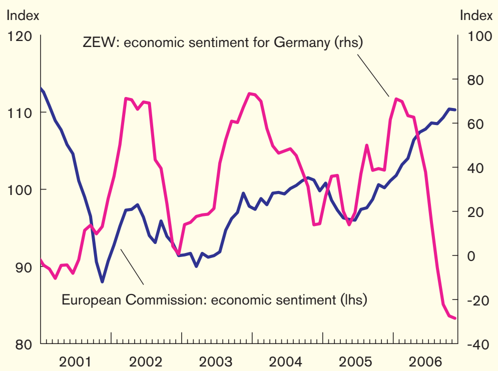
Source: Eurostat.

Table 1.B
Euro area: survey indicators of activity

(Index)	2005	Jul	Aug	Sep	Oct	Nov
Composite PMI	53.5	58.5	57.8	57.3	57.4	57.6
Manufacturing PMI	51.2	57.4	56.6	56.6	57.0	56.6
Services PMI	53.9	57.9	57.5	56.7	56.5	57.6
European Commission survey						
Economic sentiment	98.4	108.6	108.5	109.3	110.4	110.3
Industrial confidence	-7.4	4.0	2.0	4.0	5.0	6.0
Orders component	-16.8	3.0	3.0	4.0	5.0	6.0
Consumer confidence	-13.8	-8.0	-9.0	-8.0	-8.0	-7.0
ZEW economic sentiment (expectation)	32.3	18.1	1.3	-10.2	-12.5	-11.0
Germany IFO (business climate)	95.6	105.6	105.0	104.9	105.3	106.8

Source: Bloomberg and Reuters.

Chart 1.5
Euro area: economic sentiment indicators



Sources: European Commission and Zentrum für Europäische Wirtschaftsforschung (ZEW).

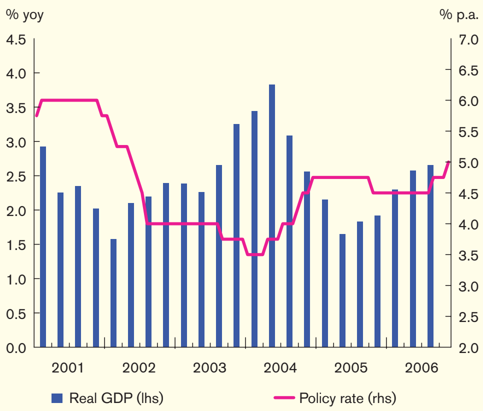
exceptional growth of 4.4% in Q2. By expenditure component, domestic demand remains the main source of growth, with investment becoming an increasingly important driver in the recent cyclical upturn. The contribution of net exports, however, turned from almost neutral to negative in Q3 as imports grew at a faster pace than exports (Chart 1.4).

Benefiting from the favourable interest rate environment, strong corporate earnings, and improved business efficiency, growth in investment surged to 9.4% in Q2. Despite a moderation of growth to 3.3% in Q3, investment spending is expected to remain solid in the near term as the supporting factors should continue to be in place, particularly for Germany. Consumer spending growth picked up to 2.6% from 1.2% in Q2 against the backdrop of a gradually improved labour market and the rise in consumer confidence, and is anticipated to stay robust before decelerating in early 2007 following the planned value-added tax (VAT) hike in Germany.

Survey indicators suggest the growth momentum is likely to continue in Q4. The Purchasing Managers' Indices for both the manufacturing and the service sectors have remained at a high level in recent months, indicating robust and balanced expansion across sectors (Table 1.B). The European Commission economic sentiment indicator stayed at around its highest level since early 2001 in November, and showed broad-based strength in both business and household confidence. However, concerns over a slowdown in the US, higher interest rates, a stronger euro, and Germany's VAT increase have cast a shadow over the growth prospects, as reflected in the plunge in the ZEW German economic sentiment over the past two quarters (Chart 1.5).

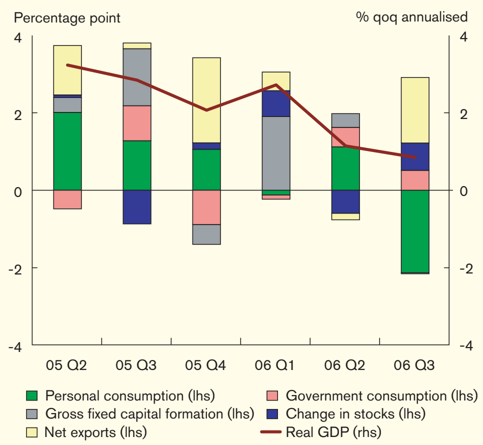
Inflation risks remain. Headline HICP inflation rose to its record-high of 2.5% year on year in Q2, on the back of buoyant economic performances and rising energy prices. It then softened to below the ECB's 2% target in both September and October, reflecting falling oil prices and the base effect that brought inflation down from its peak of 2.6% in September 2005. The HICP inflation is expected to pick up in the coming months, again due to the base effect and to the 2007 VAT tax hike in Germany.

Chart 1.6
UK: Real GDP growth and interest rates



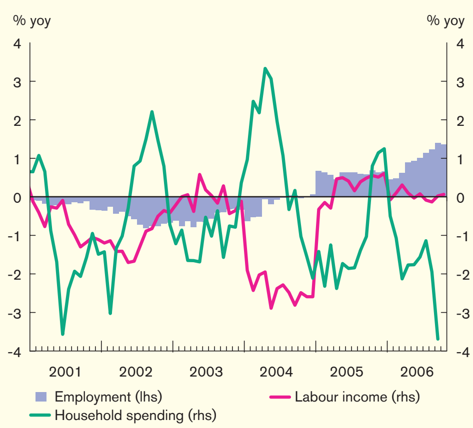
Sources: UK National Statistics and Bank of England.

Chart 1.7
Japan: contributions to GDP growth



Source: Cabinet Office of Japan.

Chart 1.8
Japan: employment, labour income and household spending



Sources: Ministry of Health, Labour and Welfare.

The UK economy grew by 2.7% year on year in 2006 Q3, the fastest in two years (Chart 1.6). Stable household income growth, buoyant housing markets, healthy corporate financial positions, and a revival in manufacturing activities have supported the economy's continuing recovery in 2006. Inflationary pressures have increased since the previous Report, against the backdrop of rapid growth and limited spare capacity. In response to the above-target headline CPI inflation, which has hovered around 2.4-2.5% year on year between June-September, the Bank of England has raised the official Bank Rate twice by a total of 50 basis points since August.

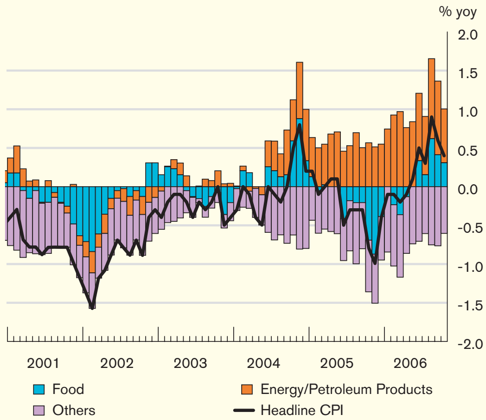
1.3 Japan

In Japan, real GDP growth moderated to 0.8% in Q3 from 1.1% in the previous quarter, with fall in consumer spending more than offsetting growth in net exports and business investment (Chart 1.7). Private consumption fell by 2.1% as the unusually cool and wet weather in many parts of Japan dampened spending. With sluggishness in labour income growth in recent months, the weakness in consumption is expected to continue (Chart 1.8).

Although business investment was strong in Q3, forward-looking indicators point to the possibility of slower growth in business activities in the coming months. Core machine orders (excluding vessels and electric power) fell by 11% quarter on quarter in Q3, while the manufacturing PMI was also down for the second consecutive month in November. Nevertheless, the September Tankan survey suggests that business confidence and excess production capacity have remained unchanged.

As overseas economies continued to expand and the yen exchange rate remained favourable, export growth picked up strongly. In volume terms, merchandise exports increased by 8.8% in Q3, compared with 3.4% in the previous quarter. Exports to the US, the euro area and East Asia all registered stable growth. The robust export performance has been supported by the strong demand for fuel-efficient Japanese automobiles. Nevertheless, faster import growth reduced the merchandise trade surplus to 1.5% of GDP in Q3.

Chart 1.9
Japan: contributions to consumer price inflation



Sources: Ministry of Internal Affairs and Communications and staff estimates.

Headline CPI inflation has remained positive since May and rose by 0.4% year on year in October, while excluding fresh food, the CPI rose by 0.1%. The increase in consumer prices was mainly driven by food and energy prices, while the contribution to the CPI by the rest of the consumer goods remained negative (Chart 1.9). With energy prices falling substantially from their peaks, inflation is likely to moderate in the coming months. In view of this, the Bank of Japan has revised its forecast for core CPI inflation (excluding fresh food) for the fiscal year 2006 to 0.3%, down from 0.6% previously estimated.

1.4 Other Asia (ex-Mainland China)

In the rest of East Asia, real GDP growth in Q3 remained solid at an average rate of 5.9%, compared with 3.6% in the previous quarter.[2] A strong performance in exports continued to be the main contributor to growth. In particular, growth in Korea, Singapore and Taiwan picked up to an average rate of 6.2% in Q3, compared with 1.6% in Q2. During the same period, Indonesia, Malaysia, the Philippines and Thailand grew by an average rate of 5.6% compared with 5.3% in the previous quarter (Table 1.C).

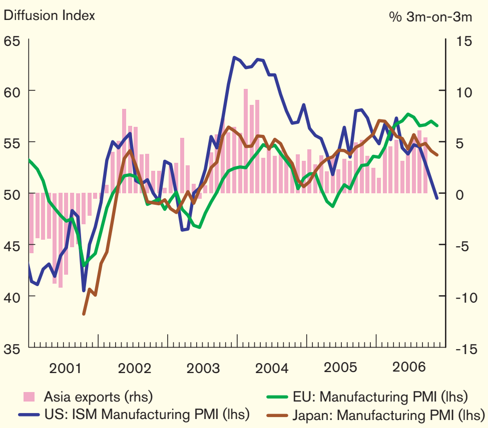
Table 1.C
East Asia: real GDP growth

(% qoq, annualised)	05Q2	05Q3	05Q4	06Q1	06Q2	06Q3
NIE:	**6.8**	**7.1**	**7.7**	**4.8**	**1.6**	**6.2**
Korea	5.9	6.6	6.7	4.9	3.4	4.4
Singapore	14.6	9.6	12.5	7.0	3.9	5.7
Taiwan[1]	6.9	7.6	8.4	4.4	-1.8	9.5
ASEAN:	**5.4**	**6.2**	**5.9**	**4.2**	**5.3**	**5.6**
Indonesia[1]	3.7	5.8	7.8	1.2	5.6	7.7
Malaysia[1]	0.9	6.3	4.4	12.4	2.1	4.4
Philippines	7.4	4.9	5.6	4.6	8.0	1.3
Thailand	8.9	7.8	3.9	4.3	4.5	6.0
East Asia:	**6.1**	**6.7**	**6.7**	**4.5**	**3.6**	**5.9**

Note 1: Staff estimates.
Sources: CEIC and staff estimates.

Exports have grown strongly in most economies in the region in Q3, supported by robust US demand (Chart 1.10). However, the slowdown in the US continues to cast doubt on the sustainability of such buoyant export growth in the region. With the exception of Korea, latest available figures show that industrial production began to slow in most of the regional economies. With a significant portion of industrial output being exported, the downward trend is expected to continue along with the moderation in external demand. Private consumption fell by 4.2% in

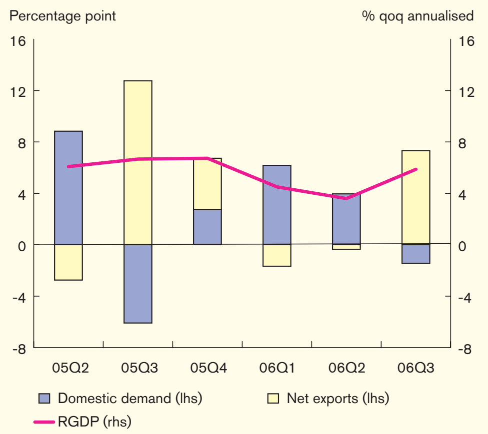
Chart 1.10
East Asia: exports and the PMI in the US, the euro area and Japan



Sources: CEIC, Reuters, Bloomberg and staff estimates.

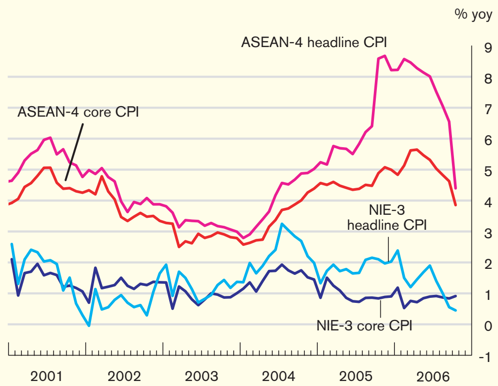
[2] Aggregate real GDP growth for Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand, which is weighted by GDP of respective economies in 2005 valued at PPP exchange rates.

Chart 1.11
East Asia: contributions to GDP growth



Sources: CEIC and staff estimates.

Chart 1.12
East Asia: headline and core CPI inflation[1]



Note 1: Simple average.
Sources: CEIC and staff estimates.

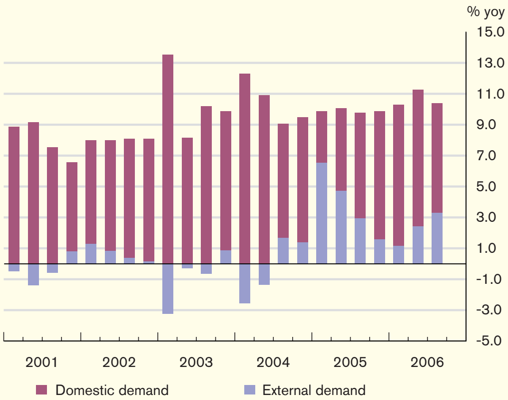
Q3 following increases in the first half of the year (Chart 1.11). Retail sales fell in the more advanced economies of Singapore, Taiwan and Korea in September, despite increasing in Indonesia and the Philippines.

Inflationary pressure continued to ease in October in most Asian economies for the fourth consecutive month, along with falling fuel prices and as the successive monetary tightening measures began to take effect. In Korea, Singapore and Taiwan, the year-on-year headline CPI inflation eased steadily to an average rate of 0.5% in October, from 1.9% in June. In particular, prices in Taiwan fell from August till October (Chart 1.12). Headline inflation in Malaysia, the Philippines and Thailand also eased to an average of 3.8% during the same period. In Indonesia, CPI inflation fell from a double-digit level in the previous 12 months to 6.3% in October, as the impact of the previous year's cut in fuel subsidy continued to dissipate. Looking forward, if the downward trend in commodity prices continues, CPI inflation in the region is likely to moderate further.

Mainland China

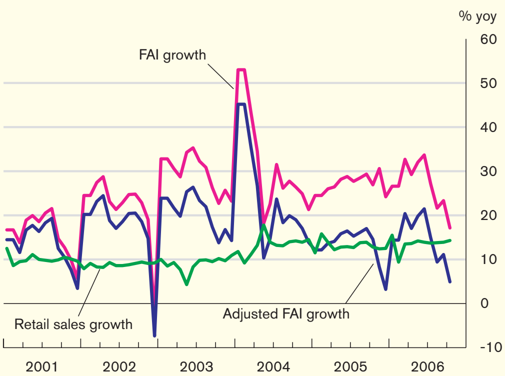
Economic growth on the Mainland moderated in 2006 Q3 following a record high in Q2. While the risk of overheating subsided, the external imbalance has worsened, with record-breaking monthly trade surpluses and enormous foreign exchange reserves of over US$1 trillion. Therefore, policy priorities are likely to be placed more on addressing the causes of the external imbalance, including reforming the foreign trade and investment regime, promoting domestic consumption and increasing exchange rate flexibility.

Chart 1.13
Mainland China: real GDP growth and the contribution from domestic and external demand



Note: Real external demand is proxied by the merchandise trade balance adjusted by the GDP deflator.
Sources: CEIC and staff estimates.

Chart 1.14
Mainland China: real growth of FAI and retail sales



Sources: CEIC and staff estimates.

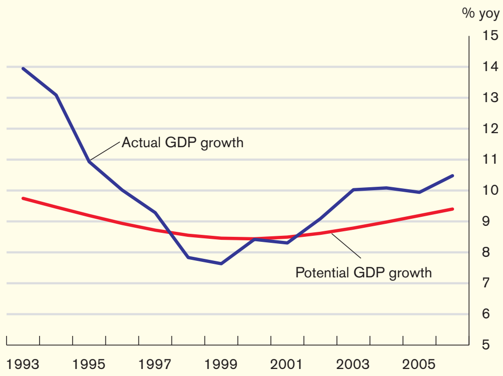
1.5 Output growth, external trade and inflation

Output growth

Real GDP growth moderated to 10.4% year on year in Q3 after recording an eleven-year high of 11.3% in Q2 (Chart 1.13). The seasonally adjusted quarter-on-quarter growth also declined to 1.3% from 2.5% in the previous quarter. The moderation in growth was led mostly by a slowdown in domestic demand. This was partly offset by an increased contribution from external demand whose relative importance to GDP contribution rose from about 10% in Q1 to around 30% in Q3.

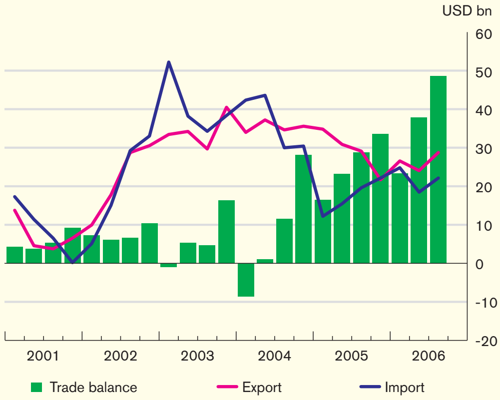
The moderation in domestic demand mainly resulted from a considerable slowdown in the growth of fixed assets investment (FAI), which rose by 24% year on year in Q3, eight percentage points lower than that in the previous quarter (Chart 1.14). (Box 1 summarises the findings of an empirical study that analyses the efficiency of investment in Mainland China.) In particular, the year-on-year growth in new construction investment in Q3 declined from about 39% in Q2 to 24%. An adjusted FAI growth series, which is closer to gross fixed capital formation in value-added terms (and averaged about 10 percentage points lower than the original series between January 2003 and September 2006), is also shown in Chart 1.14. Meanwhile, private consumption expenditure, proxied by the retail sales, has been progressing at a steady pace (Chart 1.14).

Chart 1.15
Mainland China: output growth rates



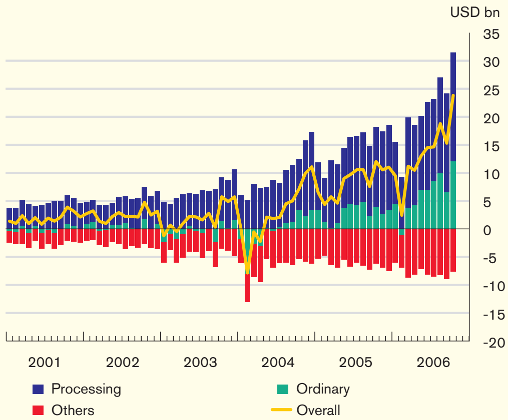
Note: The potential GDP growth is estimated with the Cobb-Douglas production function. The 2006 number is based on forecasts.
Sources: CEIC and staff estimates.

Chart 1.16
Mainland China: external trade



Sources: CEIC and staff estimates.

Chart 1.17
Mainland China: trade balance by types of trade



Sources: CEIC and staff estimates.

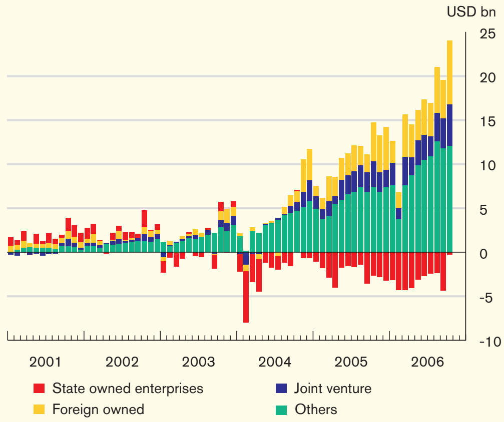
The slowdown in FAI growth signifies that the tightening measures implemented since late April are beginning to have an impact on the economy. However, the authorities are likely to remain vigilant against the risks of overheating as the current output growth rate is probably about one percentage point above its potential, as illustrated in Chart 1.15.

External trade

On the back of strong external demand, exports grew briskly at a year-on-year rate of close to 29% in Q3, almost five percentage points higher than that of the previous quarter, while growth in imports also recovered noticeably after a slowdown in Q2 (Chart 1.16). Robust foreign demand for exports coupled with a less vigorous domestic demand for imports led to a surge in trade surpluses, amounting to US$133.67 billion, in the first 10 months of the year.

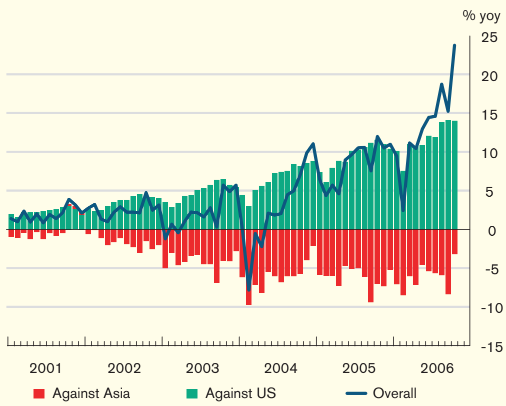
The processing trade sector consistently contributed the largest portion of the trade surplus, accounting for 70.4% and 66.2% of total trade surpluses in Q2 and Q3, respectively (Chart 1.17). Foreign-owned, joint-venture and other private firms contributed to the large trade

Chart 1.18
Mainland China: trade balance by ownership of firms



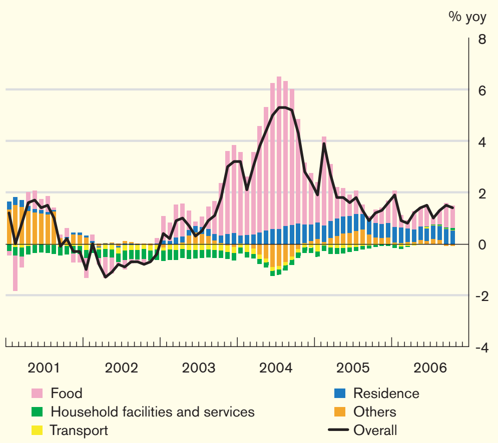
Sources: CEIC and staff estimates.

Chart 1.19
Mainland China: trade balance by geographic region



Sources: CEIC and staff estimates.

Chart 1.20
Mainland China: contributions to CPI inflation



Sources: CEIC and staff estimates

surpluses, while state-owned firms were the sole contributor to the trade deficit (Chart 1.18).

Although the Mainland ran a significant trade surplus with the US, it ran a large trade deficit with East Asian economies, including Japan, Korea and Taiwan, and the Southeast Asian economies. Over the past two years, the surplus with the US appears to have widened significantly, while the trade deficit with East Asia also increased, albeit at a slower pace than that of the surplus with the US (Chart 1.19).

Inflation

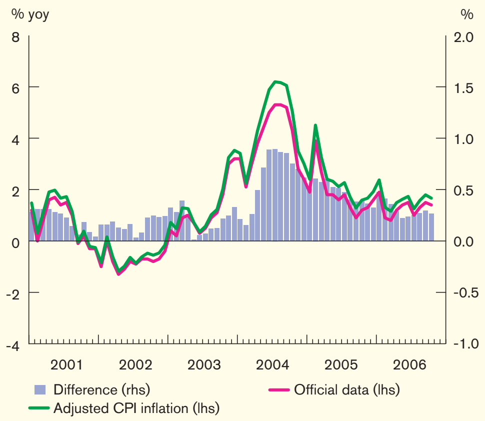
Notwithstanding fluctuations in food prices, headline inflation remained low at below 2% year on year in the first three quarters, and registered 1.4% year on year in October (Chart 1.20). Despite recent downward price movements, the likelihood of the economy returning to deflation remains remote. As indicated in Chart 1.15, economic growth is probably still one percentage point above its potential, implying that upward pressures on prices remain. In addition, commentators have argued that the headline inflation number may be biased downwards, given the Mainland's CPI may have assigned a relatively low weight to the housing component. For example, the housing weight in the consumer expenditure basket is only 13.2% on the Mainland,

Table 1.D
Mainland China: CPI weights across countries

Country	Food* (%)	Housing** (%)
Brazil	22.1	13.3
Columbia	29.5	29.4
Malaysia	30.0	21.4
Mexico	23.2	26.2
Thailand	38.5	25.9
Turkey	27.7	16.3
average	*28.5*	*22.1*
China	**33.2**	**13.2**

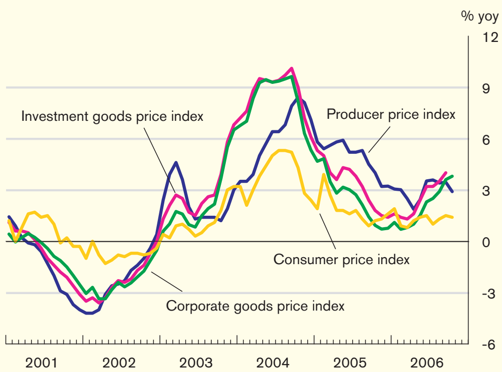
Note:
*: Brazil: food products and beverages; Mexico: food, beverages and tobacco; Thailand: food and beverages; Turkey: food and non-alcoholic beverages;
**: Malaysia: housing, water, electricity, gas and other fuels; Thailand: housing and furnishing; Turkey: housing, water, electricity, gas and other fuels.
Sources: CEIC, Instituto Brasileiro de Geografia e Estat-stica and Departamento Administrativo Nacional de Estadistica.

Chart 1.21
Mainland China: adjusted CPI inflation



Sources: CEIC and staff estimates.

Chart 1.22
Mainland China: price indicators



Note: Corporate goods price index is a comprehensive price index representing changes in the prices of goods provided in inter-enterprise transactions. It is compiled by the PBoC and was preceded by the Wholesale Price Index (WPI), which started in 1994.
Source: CEIC.

which is low when compared with the average of a group of medium-income economies at similar levels of development (Table 1.D). In view of the significant rise in property prices across the urban areas and the growth in the price of construction materials and rentals, the current CPI inflation would be about 0.3 percentage point higher if the housing component were assigned a larger weight, say, to the average of those medium-income countries listed in Table 1.D (Chart 1.21).

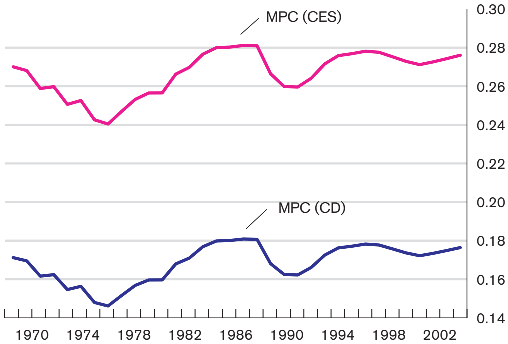
Meanwhile, the producer price index (PPI) inflation declined to 2.9% year on year in October after remaining above 3% in the four months from June to September 2006, mainly reflecting changes in energy prices. However, the investment goods price index and the corporate goods price index inflation rates continued their upward momentum (Chart 1.22), despite recent falls in commodity and energy prices. As a result, inflationary pressures may not abate markedly in the near term in spite of the recent decline in oil prices and the moderation in the domestic economy.

Box 1
Assessing the efficiency of Mainland China's investment

Mainland China's investment has been growing strongly. The share of gross capital formation in GDP has also been higher than in other East Asian economies during their significant growth period in the 1970s and 1980s. Many commentators have argued that such high rates of investment growth have been driven by irrational incentives and have been largely inefficient, will cause a build-up of non-performing loans in the banking system, and will also lead to over-capacity and deflation. Others, however, have argued that China is still capital scarce, returns on capital are high and high rates of investment are both desirable and sustainable.

He et al (2006) sheds new light on this debate by analysing both the allocative efficiency and the dynamic efficiency of China's spending on capital.[3] The allocative efficiency measures the extent to which resources have been invested in places where potential rates of return on capital are high. The potential rates of return can be calculated as the marginal products of capital derived from an aggregate production function. The dynamic efficiency measures the extent to which the capital-output ratio exceeds the optimal level. The optimal level of the capital stock is determined by the rate of investment which presently allows Chinese residents to enjoy the highest possible level of consumption, without sacrificing the level of consumption in the future.

Chart B1.1
Mainland China: marginal product of capital



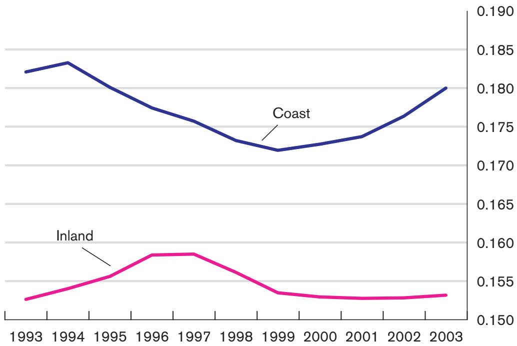
Source: He et al (2006).

China's marginal products of capital (MPC) have been relatively high

Results from estimating the Cobb-Douglas (CD) and constant-elasticity-substitution (CES) production functions indicate that China's MPC has been relatively high in the past two decades, and has not shown clear signs of decline in recent years (Chart B1.1). In addition, China's MPC compares favourably with those observed in the major industrialised economies and in the Asia

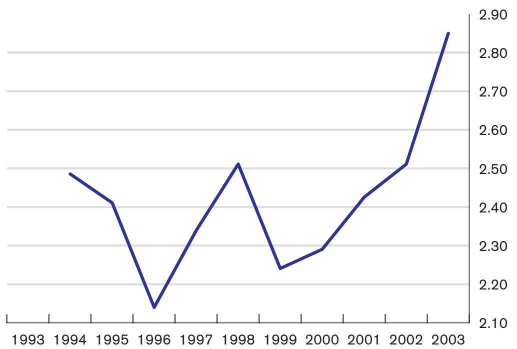
[3] The full technical version of the study is published as He, D., W.L. Zhang and J. Sheck, 'How efficient has been China's investment? Empirical evidence from national and provincial data', Research Memorandum 19/2006, HKMA.

Chart B1.2
Mainland China: marginal product of capital across regions from the CD production function



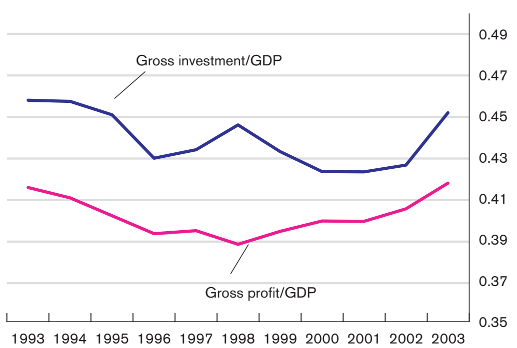
Source: He et al (2006).

Chart B1.3
Mainland China: allocative efficiency of investment over time



Source: He et al (2006).

Chart B1.4
Mainland China: ratios of investment and capital income to CDP



Source: He et al (2006).

region. The results also show that the MPC has been higher in the coastal areas than in the less developed areas of western and central China (Chart B1.2), but the marginal products of infrastructure capital have been higher in the inland areas than in the coastal areas. These results are robust to different assumptions made in constructing the data of capital stock.

The allocative efficiency of investment has been improving

In recent years, the correlation between the growth of investment and the MPC has been increasing, implying that the allocative efficiency of investment has improved (Chart B1.3). The positive relationship between the growth of investment and the MPC was stronger in the coastal areas than inland, implying that the former had higher allocative efficiency than the latter. Among the various types of investment, FDI had the highest allocative efficiency. Infrastructure investment in the inland areas appeared to have had low allocative efficiency, possibly reflecting the observation that infrastructure investments in those areas were typically made by the public sector without much consideration for current period rates of return.

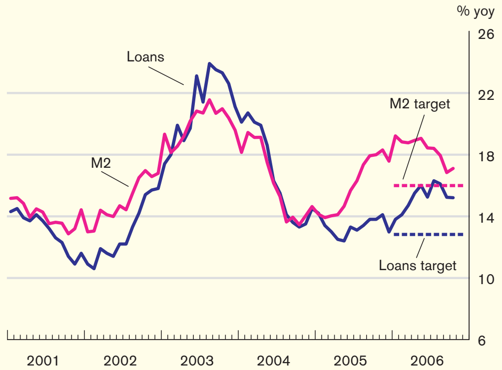
The rate of investment has probably been too high

The study also analyses the question whether the current rate of investment is too high by applying the methodology developed by Abel et al (1989) to judge the dynamic efficiency of an economy.[4] According to that methodology, an economy that invests more than its total profit in steady state is dynamically inefficient. By comparing the share of capital income in GDP and the rate of investment in China, the study finds that the latter has consistently exceeded the former since the early 1990s (Chart B1.4). This implies the rate of investment in China has been too high, and the Chinese economy is probably on a dynamically inefficient growth path. This provides analytical support for the government's intention to reduce the rate of investment and raise the rate of consumption.

[4] Abel, A. B., N. G. Mankiw, L. H. Summers and R. J. Zeckhauser (1989), 'Assessing dynamic efficiency: theory and evidence', The Review of Economic Studies, Vol. 56, No. 1, 1-19.

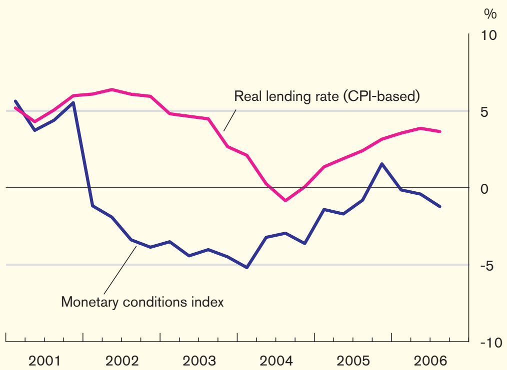
Thus, while one can take some comfort that the current high rate of investment is not necessarily a sign of allocative inefficiency or will cause a hard landing for the Chinese economy, the welfare of current and future generations of Chinese citizens can be improved by changing the pattern of expenditure, into one that involves less investment and more consumption.

Chart 1.23
Mainland China: growth in money and credit



Source: CEIC and staff estimates.

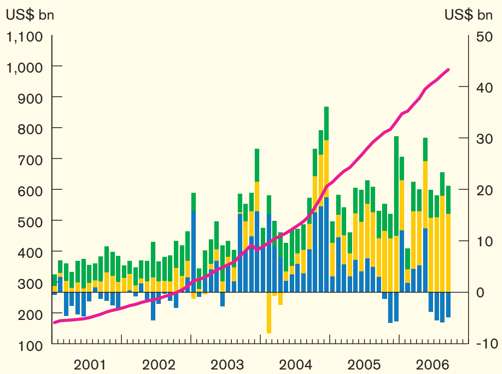
Chart 1.24
Mainland China: monetary conditions



Note: The monetary conditions index (MCI) is defined as a weighted sum of real interest rate, real effective exchange rate and real credit growth. A rise in the index indicates a tightening of monetary conditions.

Sources: CEIC and staff estimates.

Chart 1.25
Mainland China: external capital inflows



Sources: CEIC.

1.6 Monetary conditions and the renminbi exchange rate

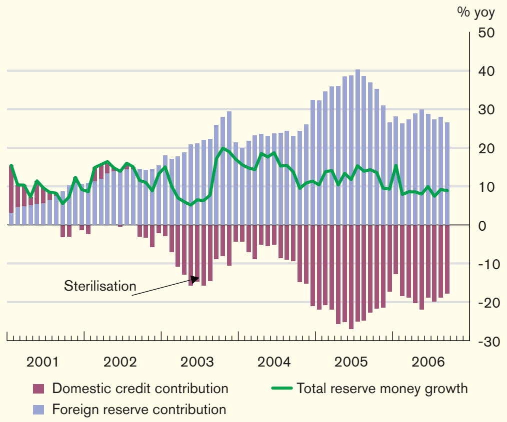
Monetary conditions

Growth in broad money, M2, maintained an elevated rate of 16.8% year on year in Q3, marginally lower than in Q2, and recovered to 17.1% in October (Chart 1.23). Loans in Q3 and October rose by 15.2% year on year, the same as in Q2. Growth rates in both M2 and bank credit are still above the announced targets in 2006, suggesting that the liquidity overhang in the banking system remains a concern.

Despite the rising real lending rate, the monetary conditions index (MCI) indicated a persistent easing of overall monetary conditions in Q3 (Chart 1.24). This was primarily driven by a softening in the real effective exchange rate (REER). (Box 2 describes a methodology to calculate a third-country REER for Mainland China that may better reflect the country's external competitiveness).

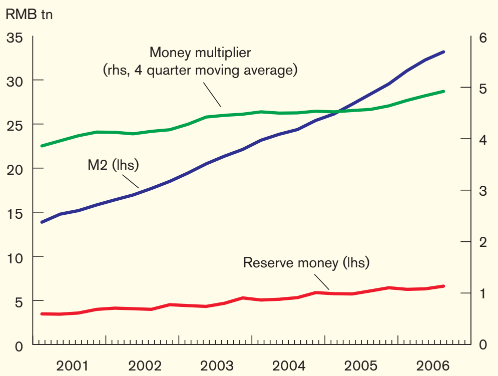
Foreign exchange reserves totalled US$987.9 billion in Q3, about US$47 billion higher than in Q2 and exceeded US$1 trillion at the end of October (Chart 1.25). The rapid accumulation of foreign exchange reserves was mostly due to the trade surplus as the pace of capital outflows appeared to have intensified. As indicated by the balance of payments statistics in 2006 H1, outward portfolio investment by Chinese investors increased sharply from US$8.5 billion in 2005 H1 to US$44.8 billion in 2006 H1. In addition, net portfolio inflows also changed from positive to negative in the past few months, reaching US$20 billion between June and September 2006, possibly suggesting that speculation on a sharp renminbi appreciation has weakened and the measures to control foreign speculation in the property market may have started to take effect.

Chart 1.26
Mainland China: contribution to reserve money growth



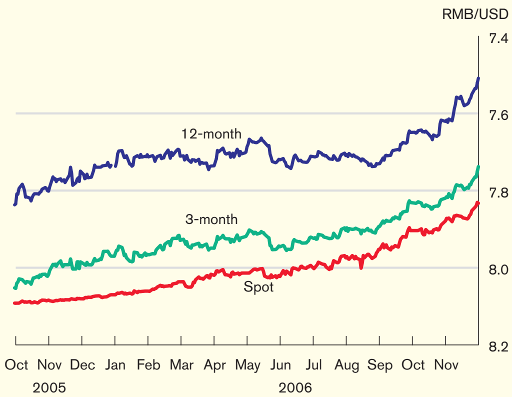
Source: CEIC.

Chart 1.27
Mainland China: money multiplier



Sources: CEIC and staff estimates.

Chart 1.28
Mainland China: renminbi exchange rate (non-deliverable forward and spot)



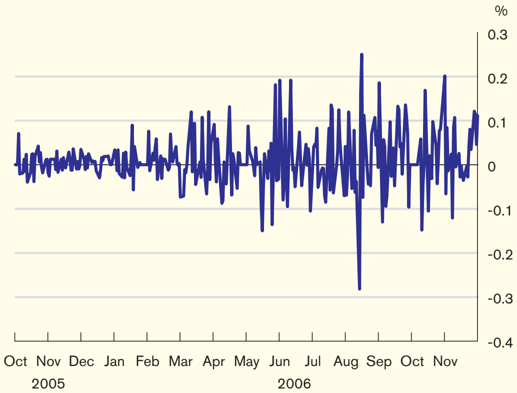
Sources: Reuters and Bloomberg.

The escalating foreign exchange reserves continued to complicate the conduct of monetary policy. Although the growth of reserve money has been stable this year (Chart 1.26), the money multiplier (M2/Reserve Money) has increased at a faster pace, possibly owing to an improved payment system and the profit orientation of commercial banks (Chart 1.27). This suggests that the monetary authority has to drain more liquidity than before to achieve the same effect on the growth of broad money supply. (Box 3 describes an attempt to estimate a benchmark term structure of interest rates on the Mainland, which could be used to analyse the changes in monetary conditions over time). While the favourable interest rate differentials between assets denominated in renminbi and the US dollar suggest the sterilisation operations can continue without incurring interest income losses, it is possible that the capital loss for the central bank may become larger once the pace of the appreciation of the renminbi accelerates.

The renminbi exchange rate

The renminbi has continued to appreciate in recent months, with the spot rate trending up and appreciating by about 3.5% since the exchange rate reform of July 2005. The non-deliverable forward rates at the end of November suggest that markets expected the renminbi to appreciate to around RMB7.74 and RMB7.50 to US$1 in three and 12 months, respectively (Chart 1.28). Accompanied by a faster pace of renminbi appreciation, the authorities appear to have allowed more flexibility in

Chart 1.29
Mainland China: daily volatility of the renminbi exchange rate against the US dollar



Sources: Bloomberg and staff estimates.

Chart 1.30
Mainland China: the weight of the US dollar in a nine-currency basket after the reform

Note: The nine currencies are the US Dollar, Euro, Japanese Yen, Korean Won, Canadian Dollar, Singapore Dollar, British Pound, Australian Dollar and Thai Baht. The regression is undertaken by ordinary least squares with 60-day rolling sample.

Sources: Bloomberg and staff estimates.

the exchange rate, as shown by the gradual increasing daily volatility in the spot rate (Chart 1.29). Increased flexibility in the RMB exchange rate provides two-way risks on the exchange rate movements, thus discouraging short-run capital inflows.

It also appears the US dollar has played a less prominent role in determining the renminbi exchange rate since the reforms of July last year. The estimated weight of the US dollar, in a hypothetical currency basket that might have been used as a reference to determine the value of the renminbi, appears to have decreased considerably since October 2005. This is indicated by an ordinary least squares (OLS) rolling regression with the daily changes of the renminbi exchange rate as the dependent variable and a basket of nine currencies as the explanatory variables, all measured against a common *numeraire* of the Swiss Franc (Chart 1.30). Though recovered to over 90%, the decline in the dollar weight was particularly noteworthy in the three months preceeding November.

Box 2
Mainland China: Third-country Real Effective Exchange Rate (REER)

Often used to gauge an economy's external competitiveness, the conventional REER is calculated based on the shares of the economy's bilateral trade with its major trading partners. Although a useful indicator, this measure does not capture the so-called 'third-country' effects – competition that an exporting economy faces in foreign markets from other economies which export similar products. One case in point is the economic relationship between the Mainland and Mexico. As there is limited trade between the two economies, Mexico carries a small weighting in the Mainland's conventional REER measure. However, Mexico is an important source of imports for the United States, which is also one of the largest export markets for the Mainland. It is likely that exports from the Mainland and Mexico compete with each other in the US market, which is not adequately reflected in the conventional REER.

Shu and Yip (2006) constructs a third-country REER for the Mainland to capture the economy's competiveness relative to its competitors in the destination markets.[5] The weighting scheme for this measure is calculated utilising the data on exports from the Mainland's major competitors to the United States, the European Union, and Japan - three markets which account for more than half of the Mainland's exports. An economy is considered to be the Mainland's competitor if it exports similar products to the three destinations. The weighting for a competitor depends on the market shares of both the competitor and the Mainland in the destination market. Mathematically, the weighting for competitor j is given as:

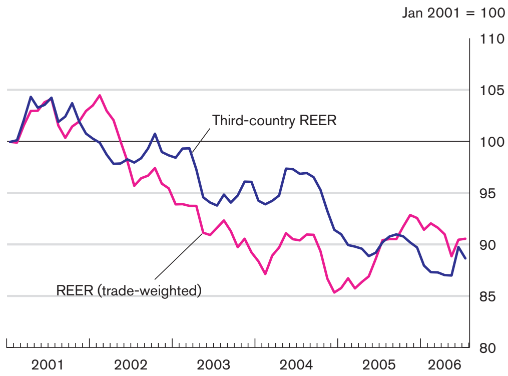
$$w_j = \sum_k \left(\frac{X^k_{CN}}{\sum_k X^k_{CN}} \right) \bullet \left(\frac{M^k_j}{\sum_j M^k_j} \right),$$

[5] Shu, C. and R. Yip (2006), Impact of Exchange Rate Movements on the Chinese Economy, China Economic Issues, Number 3/06, July 2006, HKMA.

where M_{j}^{k} = imports of economy k (k = US, EU, and Japan) from competitor j

X_{CN}^{k} = exports of the Mainland to economy k.

Chart B2.1
Conventional and third-country REERs

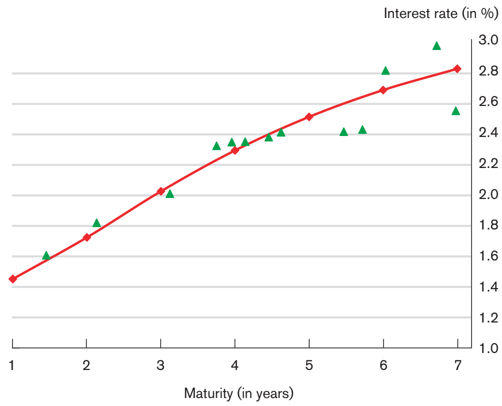


Source: Staff estimates.

Chart B2.1 plots the conventional and third-country REERs. Measured by the conventional REER, the renminbi, being pegged to the US dollar before July 21, 2005, weakened in the second half of 2004 due to the depreciation of the US dollar against other major currencies. After rebounding in 2005 upon the strengthening of the US dollar and the 2.1% revaluation in July 2005, the renminbi weakened again in 2006, returning to a level similar to that in the middle of 2004. However, while the conventional REER suggests that the currency experienced several swings in the last couple of years, resulting in limited gains in the Mainland's competitiveness, the third-country REER reveals a different picture. It points to a more or less continuous gain by the Mainland in competitiveness relative to its competitors since mid-2004 owing to greater currency appreciation in those economies. The comparison between the two measures suggests that the conventional REER has probably understated the rise in the Mainland's external competitiveness in recent years. This gain in competitiveness against the Mainland's competitors may have contributed to the sustained strengthening in its export growth.

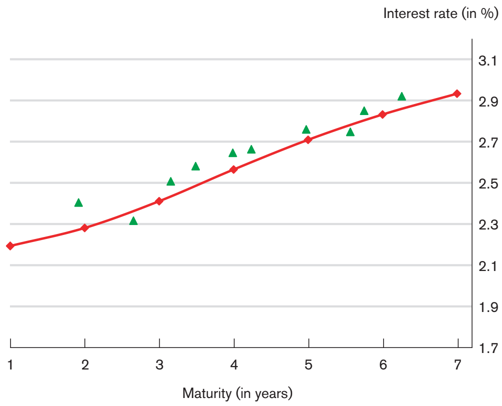
Box 3
Mainland China: Estimates for a benchmark term structure of interest rates

Chart B3.1
Benchmark term structure of interest rates on 8 March 2006



Source: Staff estimates.

Chart B3.2
Benchmark term structure of interest rates on 25 August 2006



Source: Staff estimates.

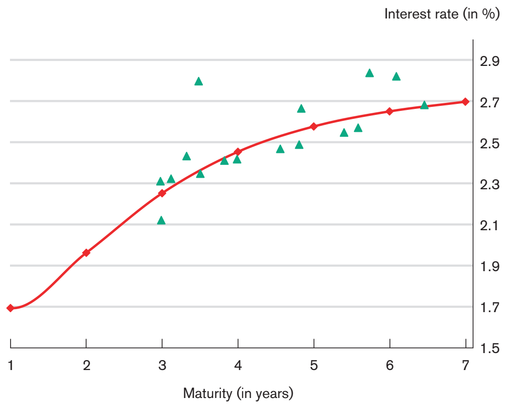
The term structure of interest rates depicts the relationship between spot rates and maturity. A benchmark term structure of interest rates is fundamental for pricing bonds and other debt instruments such as bank loans, mortgages, corporate debts and interest rate derivatives. It is also a useful tool for portfolio evaluation, risk management, and monetary policy analysis. It is often based on treasury bonds or debt instruments issued by the government or the monetary authority as these bonds or instruments are normally free of credit risk. The China Government Securities Depository Trust & Clearing Co. Ltd. (CDC) regularly publishes a yield-to-maturity curve for treasury bonds. However, the yield to maturity is different from the spot interest rate, as the former depends on the current price of the bond, the pattern of coupon payments and reinvestments, and the latter should not depend on the pattern of coupon payments. If a bond is issued without coupons, the yield to maturity will be the same as the spot interest rate. Otherwise the yield to maturity can be significantly different from the spot interest rate for the same maturity.

Chen and Yeung (2006) estimates a benchmark term structure of interest rates for China using data on treasury bonds and presents an estimated curve with maturities ranging from one to seven years, for which liquidity has built up over the years.[6] A method widely used by other central banks is employed to estimate the spot interest rate corresponding to each maturity, dealing particularly with the complication introduced by coupon payments.[7] Charts B3.1, B3.2 & B3.3 present the estimated term structure curves for three representative

[6] Chen, H. and Vincent Yeung, Estimating a Benchmark Term Structure of Interest Rates for Mainland China, China Economic Issues, No. 4/06, October 2006, Hong Kong Monetary Authority.

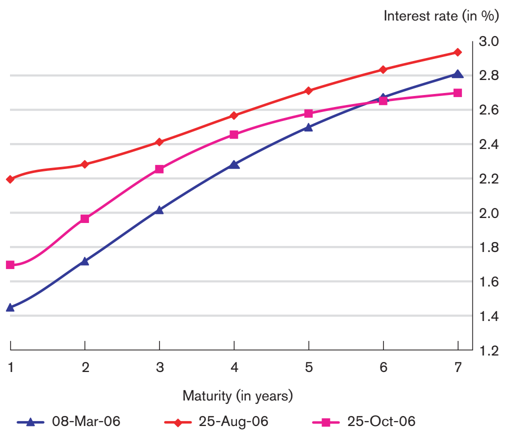
[7] Svensson, Lars E.O., "Estimating and Interpreting Forward Interest rates: Sweden 1992-1994", NBER Working Paper 4871.

Chart B3.3
Benchmark term structure of interest rates on 25 October 2006



Source: Staff estimates.

Chart B3.4
Comparison of the term structure curves



Source: Staff estimates.

dates 8 March, 25 August and 25 October of 2006 respectively. Chart B3.4 compares these three term structure curves. Based on these results, the following observations are drawn.

First, the term structure curves are generally upward-sloping for the three dates estimated, which suggests that the market expected the future short-term interest rate to go up.

Secondly, the term structure curve shifted upwards from 8 March 2006 to 25 August 2006, and shifted downwards from 25 August to 25 October. The People's Bank of China intensified monetary tightening from March 2006 through increases in reserve requirements, hikes in benchmark lending and deposit rates, issuance of central bank bills, repo transactions and moral suasion. These policy actions raised interest rates at both short and longer ends, resulting in an overall upward shift of the term structure curve. However, the curve flattened a little, suggesting the market expected a smaller rise in the future short-term interest rates on 25 August than on 8 March, probably reflecting the effect of the tightening measures implemented during the period. Most recently, the curve shifted downwards from 25 August to 25 October, reflecting easier banking system liquidity on the latter date.

In using the estimated term structure of interest rates, a number of issues need to be kept in mind:

First is the relevance of the estimated term structure curve as a benchmark for setting other interest rates. Mainland China has made significant progress in interest rate liberalisation in recent years. For example, only a rate ceiling and a rate floor are imposed for the bank deposit rate and lending rate, respectively. Therefore, the estimated term structure curve, which is a risk-free market-based interest rate structure, could be a useful reference for pricing bank loans. But the pricing of corporate bonds is more complicated. The corporate bond market is still in its early stage of development in Mainland China, and interest rates on corporate bonds are still subject to control. Therefore, to a lesser extent, the estimated term structure may serve as a benchmark, although it should provide a floor to interest rates on corporate bonds.

Secondly, when using the benchmark term structure for bond pricing, portfolio evaluation and risk management purposes, appropriate adjustment should be made to take into account the liquidity and risk profile of the underlying asset. In the case of Mainland China, it is currently difficult to quantify the liquidity and risk profiles because of the lack of a reputable local credit rating agency.

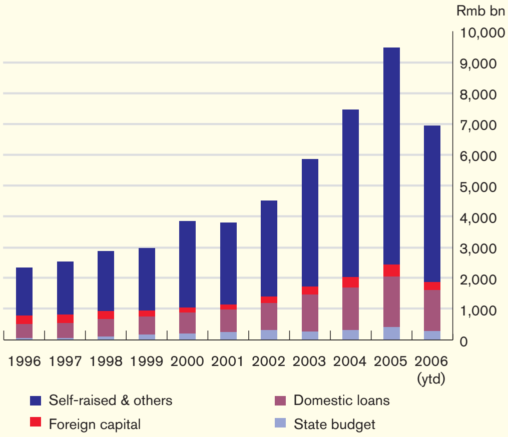
Thirdly, while the interest rate differential between renminbi and the U.S. dollar provides information on market expectations of the future change in the renminbi-U.S. dollar exchange rate, it should be borne in mind that Mainland China still has capital controls, which means the arbitrage mechanism might not work effectively. This is a point to note when the interest rate differential is used to price the forward exchange rate of renminbi.

1.7 Policy response

The Mainland authorities have indicated their major macroeconomic policy challenges include returning investment growth to a sustainable path, containing price increases in the property market, and reducing external imbalances. While the authorities may take some comfort from slower investment growth in the recent quarter, they need to be assured that the normalisation of investment growth is not short-lived. The rise in property prices, while not being seen as alarmingly fast to outside observers, is still too rapid for the authorities. However, the solution to the problem is not clear. As for reducing external imbalances, a faster pace of renminbi appreciation is expected to shoulder part of the burden of adjustment, but the authorities have argued that a fundamental re-orientation of the expenditure pattern involving more consumption is required to solve the problem.

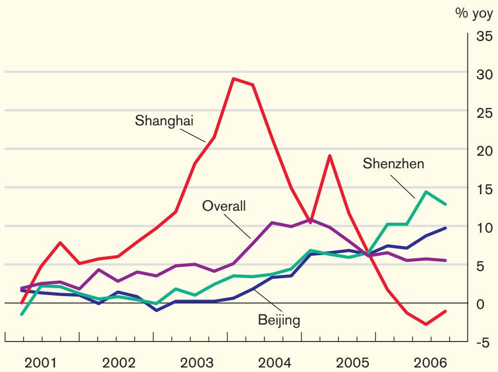
The decline in investment growth in Q3 has indicated that the macroeconomic tightening measures imposed so far have started to achieve their intended results. Compared with the overheating in 2003/2004, the authorities have acted earlier and mobilised both monetary policy and administrative measures (including window guidance) to steer the economy to a gradually moderating path. As the overall monetary conditions remain accommodative, monetary policy is likely to maintain a tightening bias. The central bank has recently shown a greater willingness to use the reserve requirement ratio (RRR) as a policy instrument, raising it by another 0.5 percentage point to 9.0% in November, the third consecutive rise in the year. Relative to the open market operations, raising the RRR increases the financial burden on the banks. Nevertheless, given that the current level of RRR on Mainland banks is still relatively low compared with economies that have experienced large capital flows in the past, its future use as a liquidity sterilisation instrument cannot be ruled out.

Chart 1.31
Mainland China: sources of investment funding



Sources: CEIC and staff estimates.

Chart 1.32
Mainland China: changes in property prices in selected cities



Sources: CEIC and staff estimates.

Fast investment growth has also been driven by favourable profit conditions in the corporate sector. It has become increasingly evident that investment spending has been funded mainly by retained earnings and other forms of self-raised funds (Chart 1.31), reflecting the observation that state-owned enterprises do not pay dividends to the government. To dampen investment growth, the authorities are reportedly discussing the option of tightening the dividend policies on large state-owned enterprises. The authorities have also indicated their intention to re-orient fiscal policy to contain investment growth. Instead of spending on investment, the government will likely use increased fiscal revenues for spending on public services such as rural education and health care, which should help boost private consumption. This new policy direction appears to have already been reflected in the 2006 budget, although it might take time to have a discernable impact on private consumption.

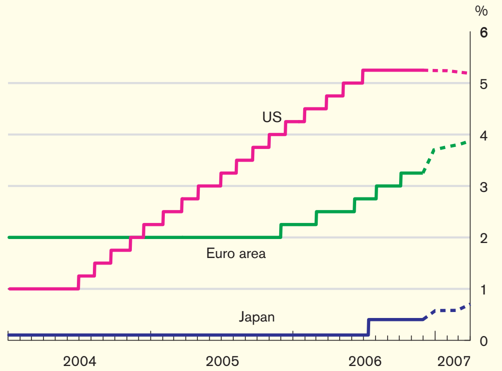
Out of concerns for financial stability and social equity, the authorities introduced a range of policy initiatives to contain the rise in property prices this year. While the increase in property prices in Shanghai fell by about 20 percentage points in 2006 Q3 from its peak in 2005, the increase in other major cities such as Beijing and Shenzhen remained elevated, although the national average has been moderate (Chart 1.32). Because property cycles may vary across different metropolitan areas, there are expectations that property prices in other cities will decline in coming months, particularly as the measures to contain real estate speculation have been enforced more strictly nationwide since the end of the second quarter. Indeed, the price increase in Shenzhen started to decline in Q3. Nevertheless, it is too early to tell whether more initiatives will need to be introduced to cool the property market.

The authorities appear to be taking a multi-pronged approach to tackle the ballooning trade surplus. They have shown greater willingness to gradually allow more flexibility in the renminbi exchange rate. However, the central bank has stated emphatically that the necessary adjustments to the real effective exchange rate should not rely solely on the nominal exchange rate. This is because key domestic prices are still state controlled, and environmental and labour costs are kept artificially low by inadequate regulations on environmental and labour protection. The authorities have started the process of reforming domestic prices so they can reflect the scarcity of resources more accurately. These reforms will likely lead to rises in domestic inflation, which can partially shoulder the burden of adjustment in the real effective exchange rate. Fiscal policy measures have also been taken to facilitate the adjustment. Recent moves to further reduce the export tax rebate and impose taxes on exports of energy and resource products are intended to reduce export growth. Financial sector reforms, such as developing domestic capital markets and launching the Qualified Domestic Institutional Investor (QDII) schemes, will help increase the investment returns for households and thereby reduce their precautionary savings. More broadly, policies to reduce the saving-investment gap will help narrow the current account surplus. However, such policies will take time to implement and to have an impact.

Monetary and financial conditions

The US Federal Reserve has paused its two-year monetary tightening, while other major central banks are catching up in the tightening cycle and taking a more non-accommodative stance in setting policies.

Chart 1.33
Policy rates for the US, Euro area and Japan



Note: Broken lines are future paths implied by futures prices (based on changes in the three-month futures prices for euro area and Japan) on 30 November 2006.

Source: Respective central banks and Bloomberg.

Chart 1.34
US Treasury yields

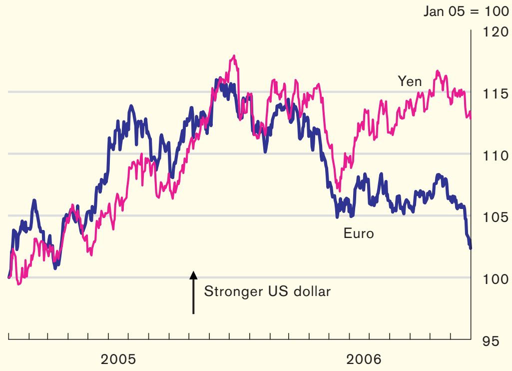
Source: US Federal Reserve.

1.8 Interest rates

Following 17 consecutive interest rate increases starting from June 2004, the FOMC has voted for a pause, waiting for clearer economic signals to provide policy directions (Chart 1.33). The minutes of the October meeting revealed its members concluded, although not unanimously, "that the economy would expand close to or a little below its potential growth rate and that inflation would ebb gradually from its elevated levels". This has generally been taken by financial markets that the central bank will continue to put policy on hold in the near future. Futures prices currently imply a 72% chance that the Fed funds rate will remain unchanged through March 2007. Across the Atlantic, the European Central Bank has raised its official interest rate by a total of 75 basis points to 3.25% since the previous Report. Although the rate was kept unchanged following the November meeting, President Trichet signalled a further tightening likely in December. The Bank of England lifted its policy rate twice from 4.5% to 5% in the period. In Asia, the Bank of Japan raised its uncollateralised overnight call rate to 0.25% in July, officially ending its zero interest rate policy.

US Treasury bond yields have fallen markedly since the previous Report. The longer end of the yield curve benefited more from an improved inflation outlook, with the 10-year yield declining by 66 basis points and the 1-year yield by only 13 basis points. The result has been a more pronounced inverted yield curve (Chart 1.34). At the end of November, the 1-year and 10-year yields stood at 4.94% and 4.46% respectively.

Chart 1.35
Bilateral US dollar exchange rates

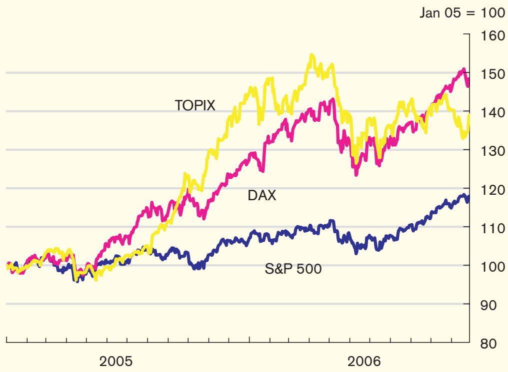


Source: Bloomberg.

1.9 Exchange rates

The US dollar has been traded within a narrow range against major currencies in directionless markets (Chart 1.35). As the tide turns in the US economy, there have been more mixed signals from the data. The Japanese yen depreciated against both the dollar and the euro, as earlier expectations of a strong economic recovery triggering an aggressive policy tightening by the Bank of Japan did not materialise. Outside the economic sphere, the military conflict between Israel and Lebanon and the nuclear tests by North Korea intensified geopolitical tensions. These occasionally increased the safe haven role of the dollar during the period, to some extent offsetting the impact of the narrowing interest differentials. News of plans by large foreign exchange reserves holders such as the central banks of China and Russia to diversify their holdings into non-dollar financial assets added further to the uncertainties. Since the previous Report, the US dollar has weakened against the euro by 3.4% and strengthened by 2.8% against the yen.

Chart 1.36
World equity indices



Source: Bloomberg.

1.10 Equity markets

Major equity markets have staged a strong comeback following the global correction in May and June. Apart from the Japanese market, which had a good run in 2005 H2, but lost steam amid more mixed economic data this year, most major markets have risen sharply over the past six months (Chart 1.36). The strong gains have been supported by better than expected earnings results, lower oil prices and, in the case of the US, also by a pause in monetary tightening and a steep fall in the long-term bond yields. The S&P 500 rose by 10.3% from the beginning of June to the end of November, while the DAX advanced by 10.8%. The TOPIX rose moderately by 1.5%.

2. Domestic economy

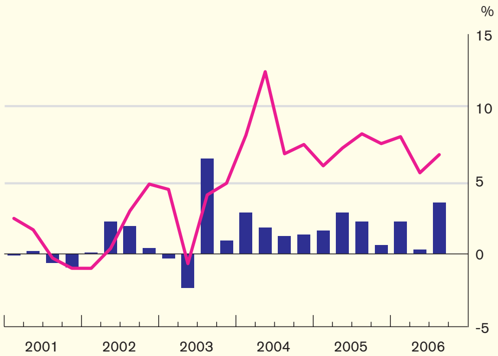
Demand

The Hong Kong economy expanded for the thirteenth straight quarter in 2006 Q3, reflecting faster growth in re-exports, and vibrant growth in capital goods (machinery, equipment and computer software) investment on more favourable monetary conditions. Local consumption continued its solid growth on the back of improving labour market conditions, while exports of services were supported by strong growth in offshore trade.

2.1 Aggregate demand

The Hong Kong economy expanded strongly in 2006 Q3, after a moderation in growth in Q2. On a year-on-year comparison, real GDP growth increased to 6.8% in Q3, from 5.5% in Q2 (Chart 2.1). The pick-up in growth was mainly due to a sharp rise in private sector capital goods (machinery, equipment and computer software) investment, and strong growth in re-exports, while private consumption and exports of services continued to grow at a slower, but still solid pace. On a seasonally adjusted quarter-on-quarter basis, real GDP expanded by 3.5% in Q3, following an increase of 0.3% in Q2. This was the thirteenth straight quarter of quarter-on-quarter increase, and also the strongest growth over the past three years.

Chart 2.1
GDP at constant market prices



Source: C&SD.

Table 2.A
Real GDP growth by expenditure component

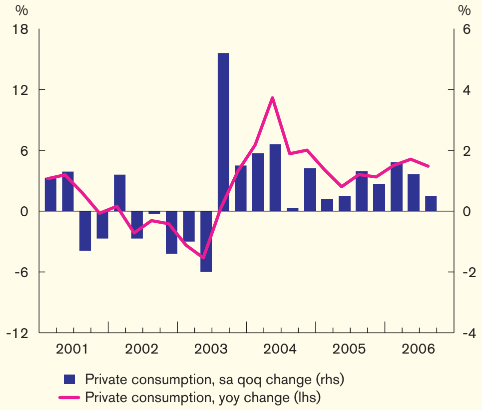
(% yoy)	2004	2005	2005	2006		
			Q4	Q1	Q2	Q3
Gross Domestic Product	**8.6**	**7.3**	**7.5**	**8.0**	**5.5**	**6.8**
Domestic demand	5.1	1.9	7.3	6.7	5.5	4.9
Consumption						
Private	7.3	3.4	3.4	4.5	5.1	4.4
Public	0.7	-3.1	-3.8	1.2	-1.5	-1.0
Gross domestic fixed capital formation	3.0	4.1	8.4	7.6	5.0	12.7
Private	5.1	7.9	15.2	14.1	7.6	16.5
Public	-6.7	-16.3	-26.6	-22.1	-17.6	-18.3
Change in inventories[1]	-0.2	-0.8	2.6	1.4	0.8	-1.0
Net exports of goods[1]	0.9	3.3	-0.7	0.2	-0.7	0.8
Net exports of services[1]	3.1	2.3	2.3	2.1	1.5	2.0

Note: 1. Percentage point contribution to annual growth of GDP.
Source: C&SD.

2.2 Domestic demand

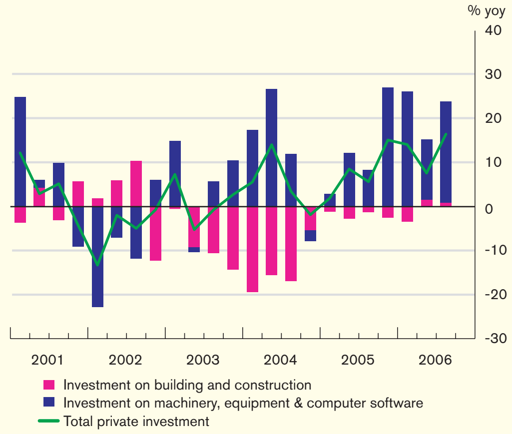
Domestic demand continued to be a key contributor to GDP growth in Q3, expanding by 4.9% from a year earlier, following an increase of 5.5% in Q2 (Table 2.A). Underpinned by more favourable monetary conditions, overall investment spending picked up noticeably in Q3. Private consumption expenditure continued to grow robustly in Q3, albeit at a less rapid rate than the first half of the year. Government consumption declined further, reflecting continuous fiscal consolidation. After a rebuilding of inventories during the four quarters to 2006 Q2, inventories decreased markedly in Q3, contributing negatively to GDP growth.

Chart 2.2
Private consumption



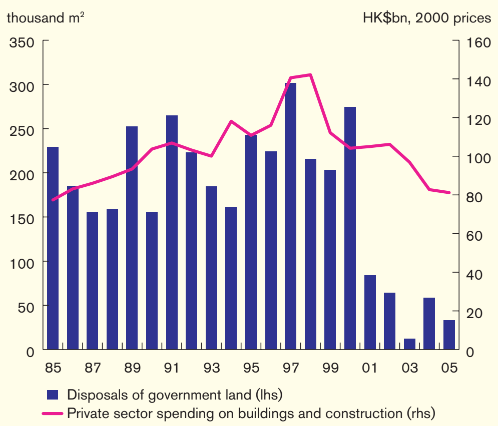
Source: C&SD.

Chart 2.3
Private investment by component



Source: C&SD.

Chart 2.4
Spending on buildings and construction and government land disposals[1]



Note: 1. Include sales of land for residential, commercial, and industrial property developments through public auctions and tenders.

Sources: C&SD, Lands Department, and CEIC.

Consumption

Local consumption has continued to grow at a solid pace since the previous Report, on the back of a broad-based improvement in labour market conditions as well as the wealth effects stemming from a rally in the stock market, which was in turn helped by the pause in the monetary tightening cycle in the US (Chart 2.2). However, growth in private consumption expenditure moderated somewhat in Q3, slowing to a year-on-year rate of 4.4%, from 5.1% in Q2. The seasonally adjusted quarter-on-quarter increase also slowed to 0.5% in Q3, from 1.2% in Q2.

Government consumption expenditure remained soft in Q3, declining by 1.0% from a year ago, following a fall of 1.5% in Q2 (Table 2.A). This reflected the Government's commitment to maintaining a robust and sustainable fiscal position.

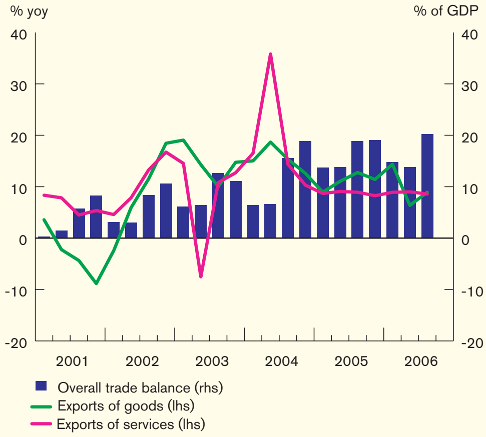
Investment

The year-on-year growth in overall investment spending increased considerably to 12.7% in Q3, from 5.0% in Q2. The sharp increase in Q3 was mainly attributable to a surge in private sector spending on machinery, equipment and computer software, which rose substantially by 22.9% from a year ago (Chart 2.3). Private sector spending on building and construction registered the second straight quarter of mild increase in Q3, rising by 0.9% year on year. These, together with a moderate increase in the expenditure on ownership transfers, resulted in a sharp 16.5% growth in overall private sector investment spending. Despite a mild increase in Q2 and Q3, the construction industry remained the weakest sector in the recent economic upturn. The sluggish building and construction activities were partly due to a sharp reduction in land supply in recent years (Chart 2.4). Public sector investment spending registered its eleventh quarter of decline in Q3, falling by 18.3% from a year ago. This was due to the lack of large-scale construction projects in the public sector.

2.3 External trade

Merchandise exports registered faster growth in Q3 after a moderation in Q2, underpinned by an increased import demand from Hong Kong's major trading partners as well

Chart 2.5
Export growth and trade balance (in real terms)



Source: C&SD.

Table 2.B
Total exports of goods by major market[1]

(% yoy)	Share[2] %	2004	2005	2005 Q4	2006 Q1	2006 Q2	2006 Q3
Mainland China	45	20	14	14	18	8	13
United States	16	5	6	2	4	0	1
European Union	15	18	16	13	9	4	2
ASEAN5[3] + Korea	7	19	7	9	8	2	13
Japan	5	14	10	6	7	2	0
Taiwan	2	16	3	3	4	-7	9
Others	10	9	10	5	11	7	9
Total	**100**	**16**	**11**	**10**	**12**	**5**	**8**

Notes: 1. Within the total, re-exports accounted for 94% in 2005.
2. Share in 2005.
3. ASEAN5 includes Indonesia, Malaysia, the Philippines, Singapore and Thailand.

Sources: C&SD and CEIC.

as a real depreciation of the Hong Kong dollar effective exchange rate. Total exports of goods increased by 8.9% year on year in Q3, up from 6.4% in Q2, with exports to most major markets showing noticeable improvement (Chart 2.5 and Table 2.B). On a seasonally adjusted quarter-on-quarter basis, exports of goods increased markedly by 6.4% in Q3, after declining by 1.1% in Q2.

Growth in re-exports accelerated to a year-on-year rate of 9.8% in Q3, after slowing markedly to 5.3% in Q2 from 12.8% in Q1. Domestic exports, on the other hand, reverted to a year-on-year decline of 3.2% in Q3, following a strong increase averaged at 26.7% in the previous four quarters. The fall in Q3 was mainly due to sharp declines in domestic exports of textile and clothing products and machinery, equipment and apparatus. The fall in textile and clothing exports in turn reflected a high base of comparison because of the expansion in local clothing production in earlier quarters following the imposition of the safeguard measures by the US and the EU against textile imports from the Mainland. Growth in imports of goods increased to 8.5% in Q3, from 6.7% in Q2, attributable to increases in both imports for re-exports and retained imports, particularly capital goods.

Exports of services continued to grow vigorously in Q3, rising by 8.6% year on year, following an increase of 9.0% in Q2. Reflecting a pick-up in re-exports and the ongoing robust offshore trade, growth in exports of trade-related and transportation services accelerated in Q3. By contrast, growth in the export of travel services moderated, owing to slower growth in the number of incoming tourists. The export of financial and other services maintained notable growth, in part helped by buoyant fund raising activities in the stock market. On the other hand, growth in imports of services slowed to 5.5% in Q3 from 8.3% in Q2, as faster growth in trade-related and transportation services was more than offset by a slower increase in other services.

Overall, the trade surplus increased considerably to 20.3% of GDP in Q3 from 13.8% in Q2, as the deficit of trade in goods narrowed and the surplus of trade in services widened (Chart 2.5).

Output and supply

The finance and logistics industries have been the important contributors to total output growth in recent quarters. The sustained economic growth continued to boost employment growth, resulting in a further decline in the unemployment rate.

Table 2.C
Real GDP growth by major economic sector (year-on-year)

(% yoy)	2004	2005	2005 Q3	2005 Q4	2006 Q1	2006 Q2
GDP at factor cost	**8.5**	**7.1**	**7.6**	**6.9**	**8.1**	**6.7**
Industrial sector	-2.7	-0.6	-0.2	-1.4	-2.4	1.2
Of which:						
Manufacturing	1.7	2.1	4.1	5.9	7.0	5.3
Construction	-9.8	-6.6	-5.5	-12.4	-12.3	-4.1
Service sector	9.9	7.9	8.5	7.7	9.1	7.3
Of which:						
Wholesale, retail, restaurant and hotel	13.7	6.6	6.3	6.7	6.3	6.1
Import and export	15.4	12.1	11.9	11.8	13.8	7.0
Transport and storage	14.0	14.5	16.6	14.2	10.7	5.7
Financing, insurance and business services	17.3	10.3	11.2	9.4	16.7	18.4

Source: C&SD.

Table 2.D
Contribution to real GDP growth by major economic sector (year on year)

(% point)	2004	2005	2005 Q3	2005 Q4	2006 Q1	2006 Q2
GDP at factor cost	**8.5**	**7.1**	**7.6**	**6.9**	**8.1**	**6.7**
Industrial sector	-0.3	-0.1	0.0	-0.1	-0.2	0.1
Of which:						
Manufacturing	0.1	0.1	0.2	0.2	0.2	0.2
Construction	-0.4	-0.2	-0.2	-0.4	-0.4	-0.1
Service sector	8.8	7.1	7.6	7.0	8.3	6.6
Of which:						
Wholesale, retail, restaurant and hotel	0.7	0.3	0.3	0.3	0.3	0.3
Import and export	3.3	2.8	2.9	2.9	3.1	1.6
Transport and storage	1.0	1.1	1.3	1.1	0.9	0.4
Financing, insurance and business services	2.9	1.9	1.9	1.7	3.2	3.6

Source: C&SD.

2.4 Output

The service sector, particularly the finance and logistics industries, continued to be the key driver of growth in 2006 H1 (Table 2.C).[8] However, along with a moderation in external trade flows, output growth of the trade-related and transportation sectors slowed markedly in Q2, from the double-digit year-on-year growth in the earlier quarters. On the other hand, output growth in financing, insurance, and other business services increased noticeably to 17.6% in 2006 H1, from 10.3% in 2005. This mainly reflected strong growth in banking services as well as buoyant stock market activities. The further opening up of Mainland China's capital account is likely to be favourable to the financial sector. Box 4 provides an analytical framework for an educated guess of the potential volume of outward portfolio investment from the Mainland and how large Hong Kong's share could be if the Mainland's capital account were to be as open as any other developed economy. For the industrial sector, manufacturing output growth picked up moderately in 2006 H1, while the construction sector continued to contract.

In terms of contribution to growth, the financial and business services industry accounted for about 46% of total output growth in 2006 H1 (Table 2.D). Services related to external trade was the second largest contributor, accounting for about 31% of the total increase.

[8] GDP by economic sector for 2006 Q3 was not available at the time of the publication of this Report.

Box 4
Outward portfolio investment from Mainland China

The Mainland has recently hastened its capital account liberalisation process. The launch of the Qualified Domestic Institutional Investors (QDII) scheme in April 2006, under which certain qualified financial institutions are allowed to engage in offshore portfolio investment, is an initial step in what is expected to be a gradual but steady process of liberalisation. With national savings amounting to 50% of GDP, and limited investment opportunities in the domestic market, this represents potentially a large amount of funds to be invested abroad, should restrictions on outward capital flows be relaxed.

Where China stands in international investment positions

While Mainland China's gross foreign direct investment (FDI) as a percentage of GDP had caught up to the world average by the early 1990s, foreign portfolio investment flows have continued to lag behind (Table B4.A). In particular, the Mainland's outward portfolio investment position stood at only 5% of GDP, compared with 12% for East Asia and 46% for the OECD average. As such, foreign portfolio investment flows are likely to have the greatest scope to respond to further capital account liberalisation in the future.

Table B4.A
International comparison of investment position, average over 2001-2005

(% of GDP)	PI Asset	PI Liability	PI Total	FDI Asset	FDI Liability	FDI Total
OECD	**46**	**57**	**103**	**30**	**24**	**54**
US	24	46	71	24	22	46
UK	95	102	197	61	36	97
Germany	55	67	123	29	25	54
Japan	38	19	57	8	2	10
China[1]	5	3	8	3	28	30
E. Asia[2]	**12**	**22**	**34**	**14**	**22**	**36**
Indonesia	1	8	10	-0.4	10	9
Korea	3	26	28	4	12	16
Malaysia	2	13	15	11	24	35
Philippines	4	24	28	1	16	17
Singapore	84	61	145	102	157	258
Taiwan[3]	32	27	58	27	12	38
Thailand	1	17	19	2	31	34

Notes: 1. Simple average of 2004 to 2005.
2. East Asia includes NIE-3 and ASEAN-4.
3. Accumulated sum of capital flows from March 1981 to December 2005.

Source: CEIC.

The potential size of the Mainland's outward portfolio investment

How much outward portfolio investment can Hong Kong expect from the Mainland, if its capital account is liberalised to the same extent as any developed economy? In general, the size of a country's portfolio outflows can be determined by factors including, (1) the sophistication of the domestic financial markets; (2) domestic and world stock market return differentials; (3) the share of foreign firms listed on the domestic stock market; (4) openness; (5) access to foreign information; and (6) per capita income.

Based on these factors, Cheung et al. (2006) provides an analytical framework for an educated guess of the potential size of the Mainland's outward portfolio investment.[9] They first estimate a quantitative relationship between a country's outward portfolio investment and the aforementioned factors based on the experience of OECD countries. The estimates are then used to project the total size of the Mainland's outward portfolio investment under various hypothetical scenarios.

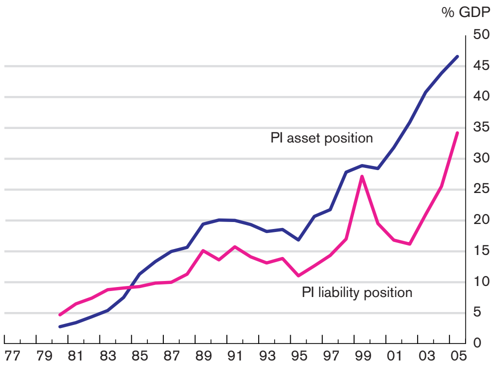
Based on a counterfactual scenario where Mainland China's capital account is as open as that of a typical OECD country in 2005, Cheung et al. suggest that the Mainland's outward portfolio investment would reach US$340 billion or 15% of GDP, compared to the actual figure of 5% of GDP (Table B4.B).[10] In addition, the authors project the size of the outflows by the time the Mainland is mature enough to open its capital account under two different scenarios. In the more conservative scenario – where the Mainland's per capita income has reached the average of the current level in the coastal provinces – the Mainland's outward portfolio investment is estimated to reach US$904 billion or 23% of GDP. In the more bullish scenario, where per capita income is assumed to reach the current level in Shanghai, the amount could reach US$4,468 billion or 54% of GDP.[11] These estimates appear to be in line with international experiences. For instance, after 10 years of initial capital account liberalisation, Japan's outward portfolio investment increased to 18% of GDP, and further to the current 46% after another 10 years (Chart B4.1).

Table B4.B
Potential outward portfoliio investment from Mainland China

	2005 Counterfactual	Scenario 1	Scenario 2
Actual outward PI position			
(% of GDP)	5.3%	–	–
Projected outward PI position			
(% of GDP)	15%	23%	54%
(USD, billion)	340	904	4,468

Source: Cheung et al.

Chart B4.1
Portfolio investment position as a percentage of GDP in Japan



Source: IMF.

9 Cheung L., K. Chow, J. Chang and U. Li (2006), "Outward portfolio investment from Mainland China: How much do we expect and how large a share can Hong Kong expect to capture?", *Research Memorandum* 13/2006, HKMA.

10 It should be noted that this scenario only serves as an easy-to-understand scenario. It would not be appropriate to assume that the OECD countries experiences hold for the Mainland at present.

11 Assumptions on the share of internet users also differ between the two scenarios-in the first scenario, it is assumed to reach the level in Greece, which is the lowest among the OECD countries, while in the second scenario, it is assumed to reach the average level of the OECD countries.

How much could Hong Kong capture?

A natural question is how much could Hong Kong capture from the potentially large amount of outward portfolio investment from the Mainland. The allocation pattern of international portfolio investment suggests the factors that appear to drive the allocation of bilateral portfolio investment include, (1) the size of the stock market in both the source and the recipient countries; (2) the distance between the source and the recipient countries; (3) information costs; (4) common languages; (5) stock market return differentials between the source and the recipient countries; and (6) exchange rate volatility.

Based on the above factors, Cheung et al. further estimates a gravity model on the bilateral portfolio investment among 19 OECD countries. The estimated results are then used to project the share of Mainland China's outward portfolio investment captured by Hong Kong, if the capital account is as liberalised as that in a typical OECD country. In the counterfactual projection using 2005 data in Mainland China and Hong Kong, the results suggest that Hong Kong would capture close to 10% of the Mainland's outward portfolio investment position, equivalent to approximately US$32 billion (Table B4.C). In Scenario 1, where the market capitalisation of Hong Kong is assumed to increase along with the growing importance of Mainland-related shares in the next 10 years, Hong Kong would be able to capture close to 14% of the Mainland's outward portfolio investment.[12] In Scenario 2, the authors further assume that Hong Kong manages to increase its stock market size to that of Japan, and the results suggest that Hong Kong could capture 20% of the Mainland's outward portfolio investment, almost doubling its share in the counterfactual scenario.[13]

Table B4.C
Potential share of Mainland China's outward portfolio investment captured by Hong Kong

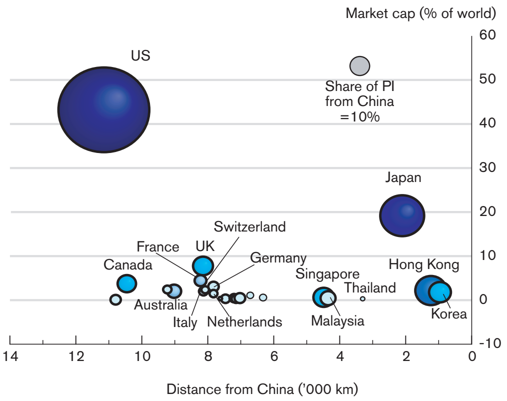
(In USD, billion)	2005 Counterfactual	Scenario 1	Scenario 2
Projected China's total outward PI position	340	904	904
Projected % share of HK in China's total outward PI position	9.4%	13.6%	20.1%
Projected inward PI position from China	32	123	182

Source: Cheung et al.

[12] Over the next 10 years, the market capitalisation of the locally-listed Mainland-related shares is assumed to increase at its average pace of growth in recent years of 20%, while the rest of the local market will grow at the same pace as that in the world market of 3%. In this case, Hong Kong's share in the world stock market capitalisation would be 7.6%.

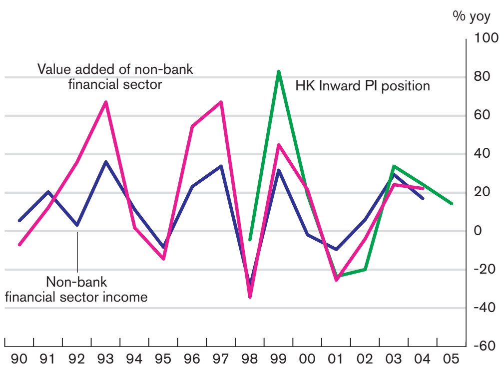
[13] In this case, Hong Kong's share in the world stock market capitalisation would be 19%.

Chart B4.2
Allocation of Mainland China's outward portfolio investment across major financial markets*



*Based on counterfactual scenario for 2005
Source: Cheung et al.

Chart B4.3
Inward portfolio investment position and financial sector income and value added



Source: CEIC.

It would also be interesting to look at how Hong Kong is competing with other countries in attracting portfolio investment from the Mainland (Chart B4.2). It is expected that while Hong Kong captures a significant share of the Mainland's portfolio investment, a major portion would be invested in the US, Japan and the UK, which have a combined share of around 75% of the global stock market capitalisation.

Implications for Hong Kong

While the model results suggest that Hong Kong's proximity and cultural affinity with the Mainland are important determinants, market capitalisation is the most important factor in determining the allocation of cross-border investment. It is thus important for Hong Kong to increase its stock market size through maintaining the soundness and sophistication of its capital markets and status as an international financial centre.

The potential increase in portfolio investment from the Mainland is expected to benefit the financial services industry in Hong Kong. Past development shows that there has been a strong co-movement between Hong Kong's inward portfolio investment position and non-bank financial sector income (Chart B4.3). The potential sizable portfolio investment from the Mainland would not only boost equity and debt market activities in Hong Kong, but also foster the fund management and custodian services industry.

2.5 Labour and productivity

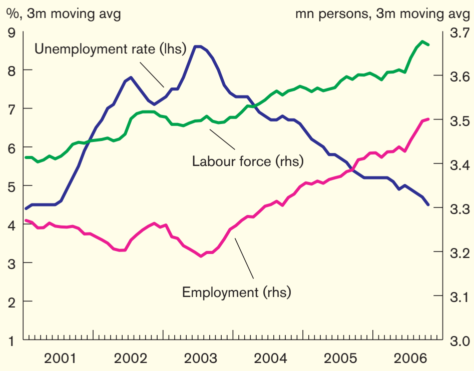
The sustained economic growth continued to boost labour demand, leading to a further decline in the unemployment rate. Real GDP grew even faster than employment growth recently, resulting in an increase in labour productivity growth in Q3.

Labour market conditions

Labour market conditions continued to improve, with the number of people in employment reaching an all-time high in October. While the effect of employment growth on the unemployment rate was partly offset by an increase in the labour force, the seasonally adjusted three-month moving-average unemployment rate dropped to a five-year low of 4.5% in October, compared with 5.1% six months ago (Chart 2.6). The fall in the unemployment rate since the previous Report was mainly observed in the construction, communications, and financial sectors.

The underemployment rate has also fallen in recent months, from 2.7% in June to 2.4% in October, although it was unchanged compared with six months ago. The improvement was particularly noticeable in the construction and manufacturing sectors.

Chart 2.6
Labour market conditions

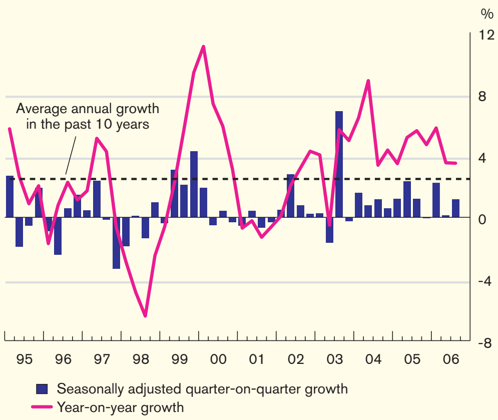


Source: C&SD.

Productivity

The year-on-year growth of output per worker - an indication of labour productivity growth - continued at above its 10-year average in Q3 (Chart 2.7). This was in part associated with an easing in capacity constraint on the back of higher capital spending on machinery and equipment acquisitions over the past few quarters.

Chart 2.7
Output per worker

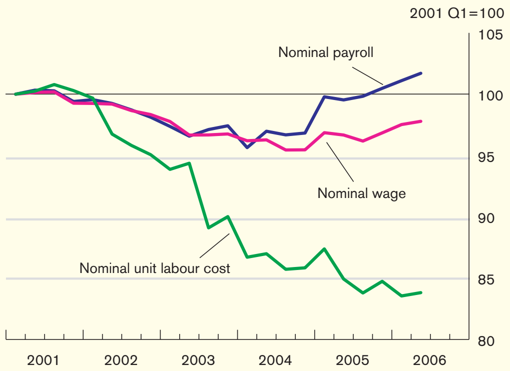


Sources: C&SD and staff estimates.

Prices and wages

Consumer price inflation eased during the review period, reflecting smaller increases in fresh food prices and rental costs. Inflationary pressures are expected to remain contained for the rest of the year, given the tepid growth in unit labour costs and the slowdown in rental price inflation. The recent decline in energy prices, if it continues, should also contribute to a more stable inflation outlook.

Chart 2.8
Wage and payroll indices and unit labour cost

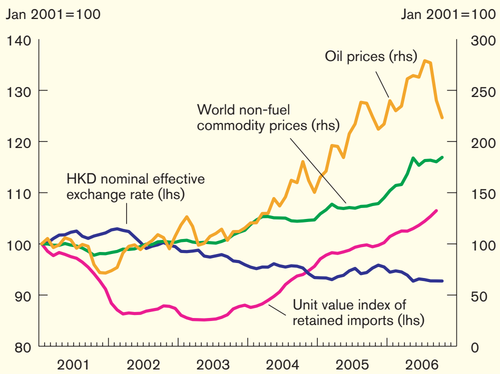


Sources: C&SD and staff estimates.

2.6 Labour costs

Reflecting continued business expansion and rising employment, labour earnings rose steadily during the first half of 2006. On a quarter-on-quarter comparison, nominal wages increased by 0.3% in Q2 after growing by 0.7% in Q1. Nominal payroll per worker rose even faster, by 0.6% for the third consecutive quarter in Q2, reflecting increased overtime earnings and discretionary bonuses (Chart 2.8). The largest increment in payroll was seen in the financial and property-related sector. So far, higher labour earnings have not exerted significant upward pressures on inflation, as robust growth in productivity has kept unit labour costs relatively stable, supporting corporate profitability in the face of higher commercial rents. The recent PMI survey suggests that while business owners will continue to expand their workforce, they perceive little upward pressures on staff costs.

Chart 2.9
Import prices

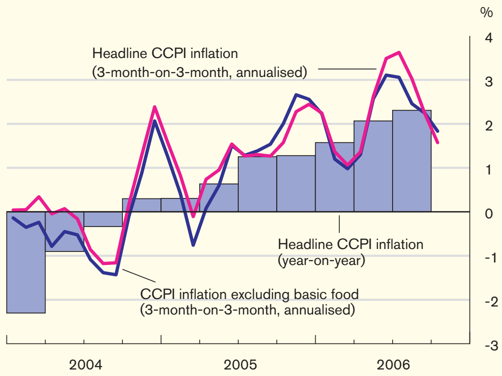


Sources: C&SD and IMF.

2.7 Commodity and import prices

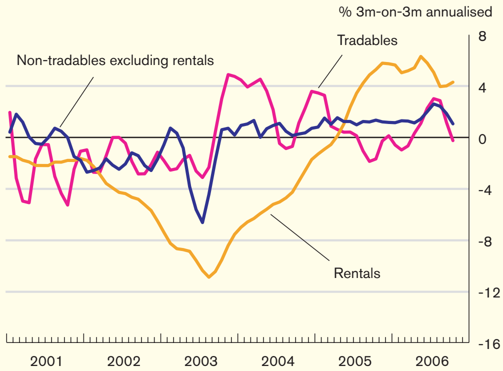
Import price inflation picked up in Q3, largely driven by higher non-fuel commodity prices. Prices of retained imports grew by 2.3% quarter on quarter in Q3 after rising by 1.1% in Q2. Prices of imported foods increased in Q3 following a decline in Q2, while raw material prices also rose notably. However, the recent fall in crude oil prices has reduced fuel costs, partly offsetting the pick-up in non-fuel commodity price inflation (Chart 2.9). Looking ahead, the expected slowdown in global demand for fuel and other commodities should help contain inflationary pressures stemming from imports, in part offsetting the upward pressure on import prices as a result of renminbi appreciation.

Chart 2.10
Different measures of consumer price inflation



Sources: C&SD and staff estimates.

Chart 2.11
Consumer price inflation by broad component



Sources: C&SD and staff estimates.

2.8 Consumer prices

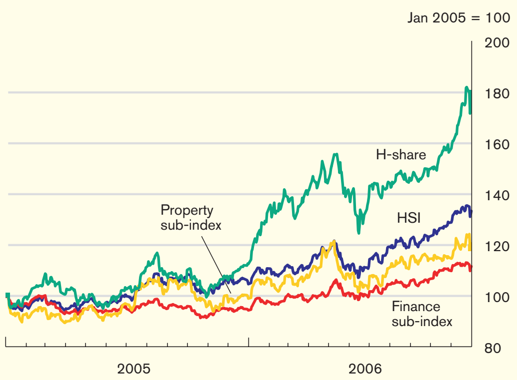
Consumer price inflation picked up modestly in Q3, reflecting robust growth in domestic demand and higher rental costs. The Composite CPI (CCPI) inflation edged up to 2.3% year on year in Q3 from 2.1% in Q2. However, the recent moderation in food price inflation and slower growth in rentals have reduced inflationary pressures. On a three-month-on-three-month comparison, CCPI inflation has eased gradually from a recent high of 3.6% (annualised) in July to 1.6% in October, mainly attributable to smaller increases in fresh food prices. Excluding the fresh food component, which is volatile in nature, consumer price inflation declined from 3.1% to 1.8% during the period, reflecting smaller increases in rentals (Chart 2.10).

Recent price development suggests that inflationary pressures are likely to recede in Q4. First, the recent declines in crude oil and energy prices, if they continue, will reduce inflation in those fuel-related components of the consumption basket of the CCPI. Secondly, following the stabilisation in residential property prices, the pace of increase in rental costs is expected to moderate in the coming months, given that the former is a leading indicator of the latter. Since the housing component has a weighting of almost 30% in the CCPI basket, a slowdown in rental price inflation is likely to curb the upward pressure on consumer prices. Thirdly, while business expansion has reduced the spare capacity in the labour market, the PMI survey in October and November shows that there is little upward pressure on staff costs and output prices, suggesting that inflationary pressures on the supply side remain contained. A breakdown of CCPI inflation shows that the inflation rates in rentals and other non-tradable components, which together represent more than two-thirds of household expenditure, have eased steadily since the middle of this year (Chart 2.11).

Asset markets

Equity prices in Hong Kong have increased sharply since the June Report, while residential property prices have decreased. Activity in the property market has picked up in recent quarters, underpinned by improved housing affordability and a more stable interest rate outlook.

Chart 2.12
Equity prices in Hong Kong



Source: Bloomberg.

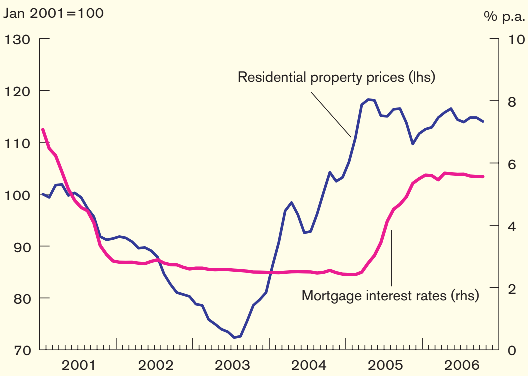
2.9 Equity market

The local equity market staged a strong rally following the market correction in May and June, and hit record highs towards the end of the review period (Chart 2.12). The bullish sentiment was supported by a number of factors, including a more favourable outlook for US interest rates, lower oil prices, increased liquidity, IPO excitement and continued renminbi appreciation. The Hang Seng Index (HSI) advanced by 19.6% in the review period, while its volatility declined. However, it was outperformed by H-shares, which rose by 28.2%. On 11 September, the China Construction Bank became the first H-share constituent included in the calculation of the Hang Seng Index. This will be followed by two other H-share constituents, the Bank of China and Sinopec, with effect from 4 December. In addition, a new Hang Seng China H-Financials Index was launched in response to increasing demand for a benchmark to track the performance of mainland financial firms listed in Hong Kong. These developments signalled the growing financial intermediation role of Hong Kong for the mainland economy.

2.10 Property market

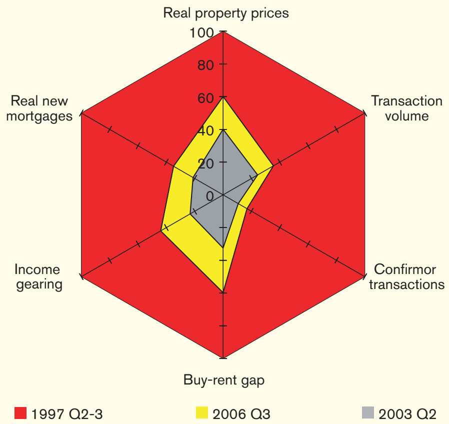
Private residential property prices declined in Q3 after a rebound in the first half of the year. In response to a moderation in private housing demand, key property developers have reduced the premium of house prices in the primary market over those in the secondary market to attract new home buyers. Classified by the saleable area, prices of medium-sized residential flats (from 40 m^2 to below 100 m^2) registered the largest decline in Q3, while prices of larger flats (160 m^2 or above) rose slightly. Despite the ongoing economic expansion, residential property prices have not risen further and have been fluctuating within a range since early 2005, as the

Chart 2.13
Property prices and interest rates



Source: Rating & Valuation Department, C&SD and staff estimates.

Chart 2.14
Graphical analysis



Sources: Rating & Valuation Department, Land Registry, Census & Statistics Department, Centaline Property Agency Limited, and staff estimates.

cumulative increase in mortgage rates has suppressed asset demand in the real estate market (Chart 2.13) (Box 5 analyses the importance of the housing market in transmitting interest rate hikes to GDP and inflation). However, prices of high-end residential properties continued to rise and were close to the 1997 peak levels in certain prime locations.

Property market transactions rose in Q2 and Q3 following a decline in Q1, largely attributable to increased residential property transactions in the primary market. The number of Sale and Purchase Agreements rose strongly by 23.1% quarter on quarter in Q2, followed by a small increase of 0.2% in Q3. The recent moderation in house prices and intensified competition in the mortgage market may stimulate residential property transactions in Q4.

Higher funding costs, together with a moderation in property prices, have reduced speculative activity in the property market in recent months. The share of confirmor transactions declined to 1.2% in Q3 from 1.8% in Q2. Nevertheless, private housing demand appears to be robust, supported by the steady rise in household income. Specifically, the income-gearing ratio, measured by the share of monthly mortgage payment in household income, declined to 28.2% in Q3 from 28.4% in Q2.[14] Higher rental yields also increased the incentive for home purchase, boosting the volume of property transactions and mortgage applications in Q2 and Q3. The buy-rent gap, measured by the ratio of mortgage repayment to rental, decreased to 59.7% from 61.3% in Q2. Overall, various indicators suggest a benign outlook for the property market, underpinned by improved housing affordability and sustained demand from home-buyers. There are no major signs of overheating in the property market, as shown by the graphical presentation in Chart 2.14 comparing the current housing market conditions with the previous episodes during the boom-burst periods.[15]

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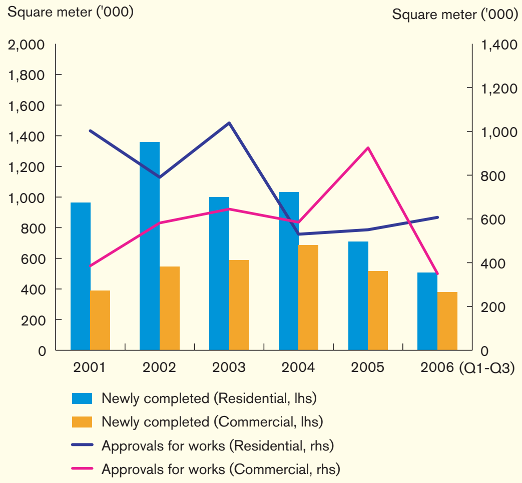
14 The mortgage repayment is estimated by assuming a 20-year mortgage on 70% of the purchase price of a representative 50 m^2 flat. The 75th percentile household income, instead of the median household income, is used in the calculation because it better reflects the income level of private housing owners.

15 See Chan, N., W. Peng and K. Fan (2005), "A graphical framework for monitoring the property market in Hong Kong", *HKMA Quarterly Bulletin*, March 2005.

Chart 2.15
Supply of residential and commercial properties



Sources: C&SD and Buildings Department.

On the supply side, newly completed residential properties (measured in terms of the floor area built) declined by 36.8% quarter on quarter in Q3 after rising in the first half of 2006. However, there is little sign of a supply shortage in the private housing market in the near term, given the relatively high vacancy rate and rising approvals for commencement of building residential units. For commercial property, the relatively low vacancy rate and a smaller increase in newly completed office space might keep rentals high for non-residential property. The decline in approvals for commencement of building commercial units since the start of this year may foreshadow a relatively limited supply in office space over the medium term (Chart 2.15).

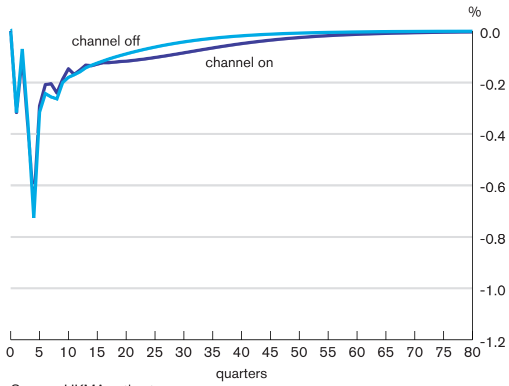
Box 5
Property market channel for transmission of interest rate shocks to HK's output and inflation

This box examines the roles that the property market plays in the transmission of interest rate movements to output growth and inflation in Hong Kong. Theoretically, interest-rate-induced property price fluctuations affect private consumption and fixed asset investments through the wealth and balance sheet effects. They are also directly fed through to the rental component of the composite CPI to affect the headline inflation rate, and are indirectly passed to the prices of goods and services through their impact on aggregate demand.

To quantify the impact of an increase in the 3-month HIBOR on output growth and inflation through the property price channel, a small vector auto-regression (VAR) model is constructed consisting of the headline composite CPI inflation rate, quarter-on-quarter growth in real GDP and property prices, and changes in the 3-month HIBOR. A two-step approach is adopted. In the first step, the responses of output growth and inflation to a 100 basis points increase in the 3-month HIBOR are generated using the VAR model. In the second step, the impact of the same shock is simulated under a counterfactual regime, in which the effects of property price fluctuations on output growth and inflation are shut off, by setting the estimated coefficients on the lags of property price in the inflation and output equations to zero. The difference between the responses in the two steps can be taken as the impact of interest rate shocks through the property price channel.

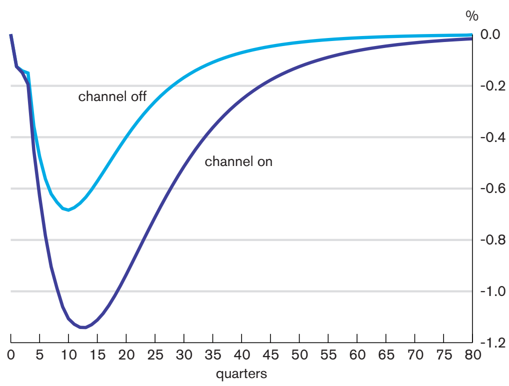
The effect of a 100 basis point hike in the 3-month HIBOR on GDP growth and headline inflation rate with the property price channel turned on and off are shown in Chart B5.1 and Chart B5.2 respectively. They show that such an increase in the 3-month HIBOR led to across-the-board declines in real GDP and the headline inflation rate. The declines are more pronounced in the presence of the property price channel.

Chart B5.1
Response of output growth to 100 basis points increase in the 3-month HIBOR



Source: HKMA estimates.

Chart B5.2
Response of headline inflation rate to 100 basis points increase in the 3-month HIBOR



Source: HKMA estimates.

Chart B5.1 shows that the impact of interest rate shocks through the property price channel on real GDP growth is relatively small, as the responses are similar whether the channel is turned on or off. In other words, in terms of the effect on aggregate demand, the wealth and balance sheet effects associated with interest-rate-induced property price swings are comparatively small versus the direct cost of capital effect of interest rate shocks (i.e. the effect not through the property price channel). Chart B5.2 shows that the contribution of the property price channel to the decrease in headline inflation rate is very significant and is comparable to the effect through other channels, as the responses differ markedly when the channel is turned on and off. Overall, the simulation results suggest that the effect of the property price channel is small in affecting output growth, but is very significant in affecting the headline inflation rate.

Although the simulation results suggest the property market does not normally amplify business cycle fluctuations in the face of interest rate shocks, it is possible – and even likely – that in episodes of unusually large property price movements within a short timeframe (e.g. the boom in 1996-1997 and the subsequent bust in 1998-1999), the property price channel can have a great impact on consumption and economic activity. The low frequency of such events and their non-linear nature make it difficult to capture the effects by traditional econometric methods.

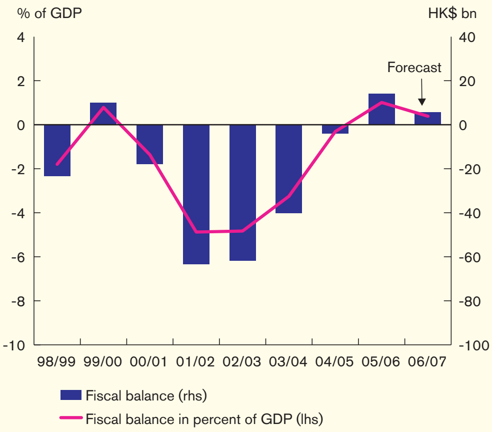
Public finances

The fiscal position continued to improve during the first half of 2006/07, supported by rising revenue along with solid economic growth and increased financial market activity. For the remainder of the fiscal year, growth in government revenue is expected to pick up, reflecting increased proceeds from land premium and direct tax.

2.11 Public finances

The fiscal position continued to improve during the first half of 2006/07. Compared with the same period in the preceding year, government revenue rose by 20.2% to HK$83 billion, partly due to higher indirect tax revenue from increased stock market transactions. Government expenditure was little changed, declining slightly by 1.0% during the period. As a result, the fiscal deficit narrowed to HK$30 billion in the first half of 2006/07, smaller than the deficit of HK$45 billion registered for the same period in 2005/06.

Chart 2.16
Fiscal balance and projection for 2006/07



Notes: 1. The 2000/01 balance excludes MTR privatisation proceeds; the 2004/05 balance excludes proceeds from the issuance of government notes and bonds.
2. The 2006/07 fiscal balance is the Budget forecast.
3. Hong Kong's fiscal year starts in April each year.

Sources: 2006/07 Budget Speech, the Treasury, and staff estimates.

Looking ahead, the fiscal balance is expected to be in surplus in 2006/07 (Chart 2.16). This is supported by increased land premium from a number of land auctions scheduled near the end of 2006. The direct tax revenue and investment income expected in 2007 Q1 are also likely to boost government revenue significantly. Over the medium term, the fiscal position is expected to continue to improve, with the consolidated surplus rising from 0.7% of GDP in 2007/08 to 1.8% in 2010/11 according to Government projections.

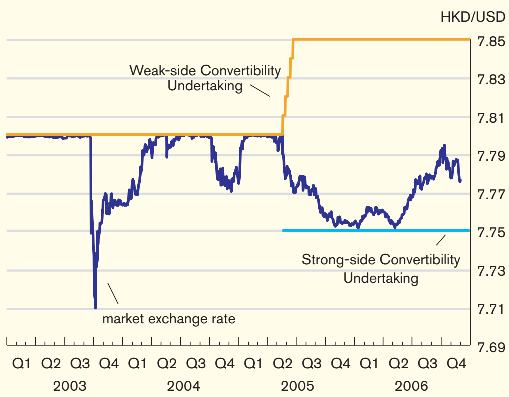
Taking account of the robust economic expansion and the current spending trend in the public sector, the International Monetary Fund recently projected a surplus for the current fiscal year, probably above 0.5% of GDP. This is similar to the Government forecast released in the Budget earlier this year. However, there are a number of fiscal challenges facing the Government over the long term. These include rising spending pressures related to the ageing of the population and continued volatility on the revenue side, reflecting the reliance on investment and land income. In this respect, a broader and more stable revenue base would help reduce the volatility in the fiscal position.

3. Monetary and financial sector

Exchange rate, interest rates and monetary developments

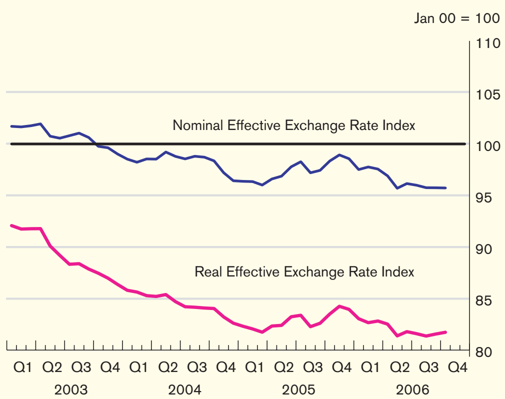
Despite an appreciation of the renminbi, the Hong Kong dollar exchange rate gradually weakened towards the centre of the Convertibility Zone from May to October before strengthening by the end of the review period. Local monetary conditions remained benign, with persistent negative interest rate spreads, steady monetary growth and a healthy balance of payments surplus.

Chart 3.1
Hong Kong dollar exchange rate



Source: HKMA.

Chart 3.2
Nominal and real effective exchange rates



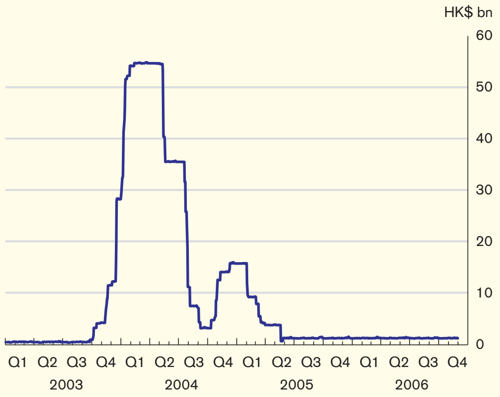
Note: Real Effective Exchange Rate Index is seasonally adjusted.
Source: HKMA, staff estimates.

3.1 Exchange rate and interest rates

The Hong Kong dollar exchange rate weakened gradually towards the centre of the Convertibility Zone from May to October 2006, partly because of interest carry trades taking advantage of the negative Hong Kong-US interbank interest rate differentials (Chart 3.1). Thereafter, the exchange rate strengthened towards the end of the year, reportedly under the influence of equity-related inflows. On the whole, the Hong Kong dollar exchange rate has weakened since the *June Report*. Meanwhile, the renminbi exchange rate has strengthened appreciably. The renminbi used to be an important factor affecting sentiment in the Hong Kong dollar, but the recent divergence in their spot exchange rates suggests the co-movements of the two currencies may have begun to diminish. That said, the psychological reaction in the Hong Kong dollar market may re-emerge when the renminbi continues to appreciate and reach parity with the Hong Kong dollar.

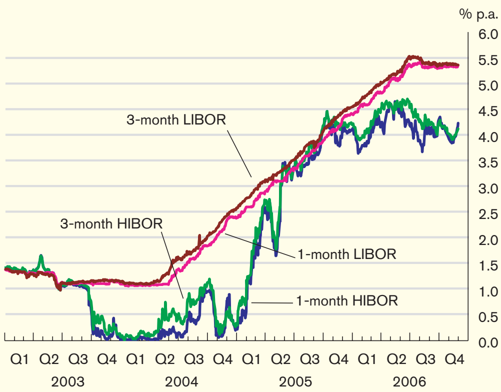
Under the Linked Exchange Rate system, movements in the bilateral exchange rates of the Hong Kong dollar against other currencies closely follow the corresponding bilateral exchange rates of the US dollar. The US dollar continued to depreciate against the renminbi, but moved within narrow ranges in a directionless market against other major currencies during the review period (see Section 1.9 for more discussion). As a result, the trade weighted nominal and real effective exchange rate indices of the Hong Kong dollar remained roughly stable in the reporting period (Chart 3.2).

Chart 3.3
Aggregate Balance (before Discount Window Activity)



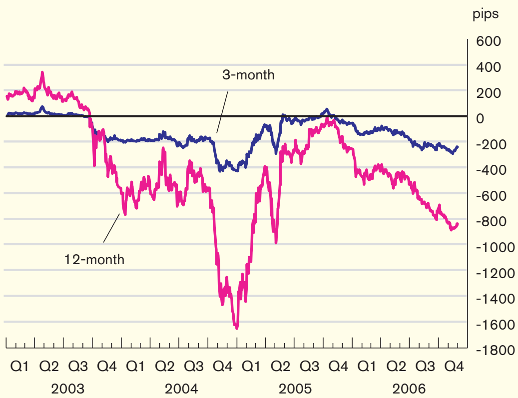
Source: HKMA.

Chart 3.4
Interest rates of the Hong Kong dollar and US dollar



Source: HKMA.

Chart 3.5
Hong Kong dollar forward points



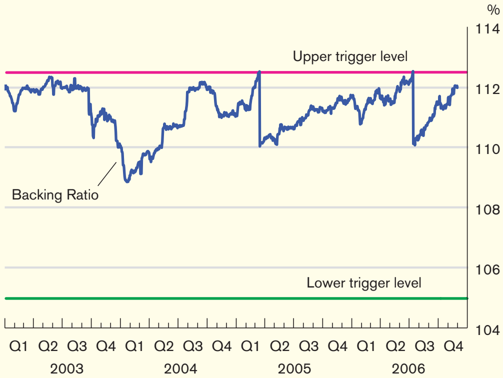
Source: HKMA.

The Convertibility Undertakings were not triggered during the review period, and the HKMA did not carry out any market operations within the Convertibility Zone. As a result, the Aggregate Balance remained stable at around HK$1.3 billion, with small fluctuations due to interest payments on Exchange Fund paper (Chart 3.3). The size of the Aggregate Balance exceeded the level normally needed for interbank settlement purposes, but provided enough cushion to deal with temporary increases in liquidity demand relating to very large and highly-oversubscribed equity IPOs (for example, the IPO for the Industrial and Commercial Bank of China).

The 1-month and 3-month HIBORs fluctuated around 4%, while the corresponding LIBORs remained stable at about 5.3% after the pause in interest rate hikes by the US Fed from August (Chart 3.4). The negative spreads of the 1-month and 3-month HIBORs over the corresponding LIBORs persisted in spite of interest arbitrage activities, reflecting ample liquidity in the interbank market. The persistently abundant interbank liquidity prompted banks to cut their best lending rates by 25 basis points in November.

The Hong Kong dollar 3-month and 12-month forward discounts widened during the reporting period (Chart 3.5). Consistent with the decoupling of the renminbi and Hong Kong dollar spot exchange rates, which could suggest the relationship between the two currencies has started to loosen, the gap between the 12-month forward exchange rates of the two currencies also widened.

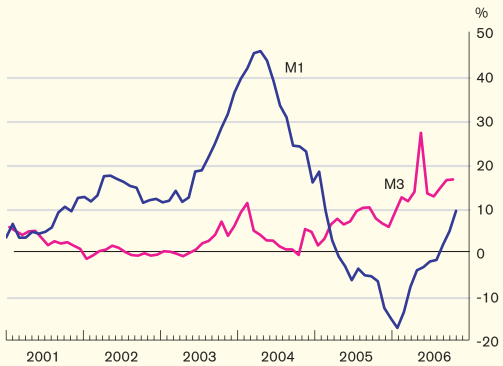
Chart 3.6
Backing Ratio



Note: The Backing Ratio is the ratio of Backing Assets to the Monetary Base. Under the arrangements for transferring assets between the backing portfolio and the investment portfolio of the Exchange Fund, when the backing ratio reaches 112.5% (the upper trigger level), sufficient assets will be transferred from the backing portfolio to the investment portfolio to reduce the ratio to 110%. Should the backing ratio drop to 105% (the lower trigger level), assets will be transferred from the investment portfolio to the backing portfolio to restore the ratio to 107.5%.

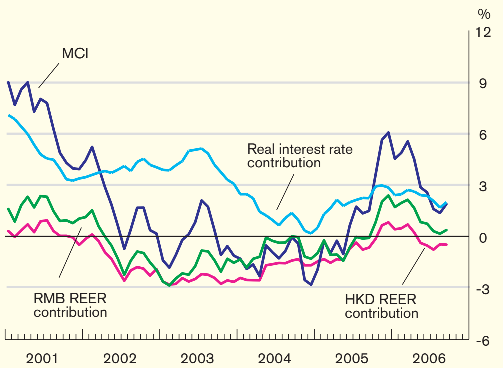
Source: HKMA.

Chart 3.7
Year-on-year growth in monetary aggregates



Note: Hong Kong dollar M1 is seasonally adjusted.
Source: HKMA.

Chart 3.8
Monetary conditions index



Note: MCI is a weighted sum of the real interest rate and the 4-quarter changes in the Hong Kong dollar and renminbi real effective exchange rates.
Source: HKMA, staff estimates.

3.2 Monetary Base and the Backing Ratio

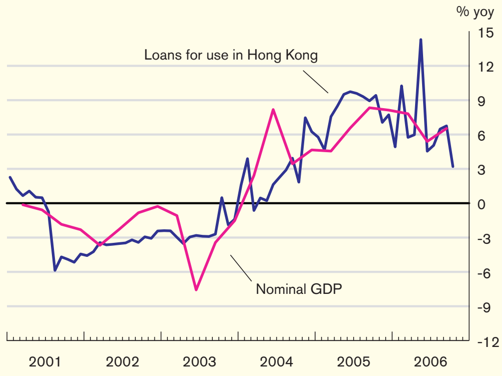
Backing Assets increased in the early part of the reporting period, as revaluation gains and interest income led to an increase in the Backing Assets while the Monetary Base dropped. The Backing Ratio rose to 112.52% on 13 July, surpassing the Upper Trigger Level of 112.5% (Chart 3.6). Under the arrangements approved by the Financial Secretary in January 2000, assets were transferred out of the backing portfolio to the investment portfolio of the Exchange Fund to reduce the Backing Ratio to around 110% on 14 July. Thereafter, the Backing Ratio largely moved upwards, as revaluation gains more than offset the effect of an increase in the Monetary Base. The Backing Ratio closed at 111.98% on 30 November.

3.3 Money, credit and monetary conditions

Monetary aggregates expanded during the period. Hong Kong dollar narrow money (M1) continued to increase and its year-on-year growth rate turned positive in August after 16 months of negative growth, reflecting buoyant fund-raising activities and increased turnover in the stock market (Chart 3.7). Hong Kong dollar broad money (M3) rose by 5.8% in Q3 and its year-on-year growth rate continued to rise alongside economic expansion.

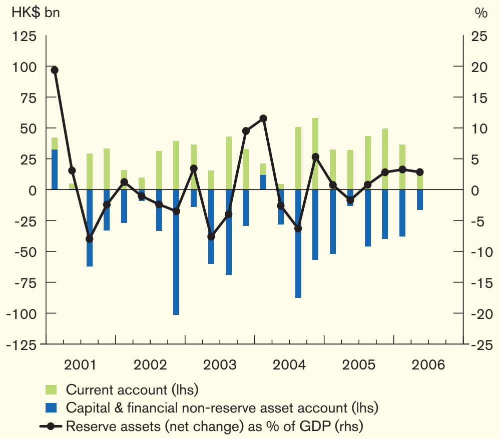
Local monetary conditions have eased since March 2006, as indicated by the downward trend of the monetary conditions index (MCI) (Chart 3.8). Moderations in the real effective exchange rates of the Hong Kong dollar and the renminbi, as well as a decline in the real interest rates on the back of rising inflation have contributed to the easing. From a macroeconomic perspective, the current level of the MCI is neither too loose (as in late 2003-2004), which would raise overheating pressures, nor overly tight, which would risk stifling the economic expansion.

Chart 3.9
Loans for use in Hong Kong and nominal GDP



Sources: HKMA and Census & Statistics Department.

Chart 3.10
Balance of payments



Source: Census & Statistics Department.

Table 3.A
Balance of payments account by standard components

	2004	2005	2005		2006	
In percent of GDP			Q3	Q4	Q1	Q2
Current Account	**9.5**	**11.4**	**12.2**	**13.3**	**10.6**	**4.3**
Capital and Financial Account	**-14.3**	**-11.6**	**-13.7**	**-13.5**	**-14.2**	**-7.6**
Capital transfers	-0.2	-0.4	-0.2	-0.1	-0.1	0.1
Financial non-reserve assets (net change)	**-12.1**	**-10.5**	**-12.6**	**-10.5**	**-10.8**	**-4.8**
Direct investment	-7.0	1.9	-8.6	13.8	7.9	-8.6
Portfolio investment	-23.7	-12.2	-5.4	3.5	9.8	-22.4
Financial derivatives	3.4	1.0	0.3	0.8	0.7	4.2
Other investment	15.2	-1.2	1.1	-28.6	-29.1	22.0
Reserve assets (net change)	**2.0**	**0.8**	**0.8**	**2.9**	**3.3**	**2.9**
Net errors and omissions	**4.8**	**0.2**	**1.5**	**0.2**	**3.6**	**3.3**

Source: Census & Statistics Department.

The growth of loans for use in Hong Kong usually tracks nominal GDP growth closely. In line with the steady nominal GDP growth, domestic loans growth remained healthy, with occasional spikes as a result of increased credit demand associated with equity IPOs (Chart 3.9).

3.4 Capital flows

For the fourth consecutive quarter, there were steady inflows of funds into the Hong Kong dollar. The latest Balance of Payments (BoP) statistics showed an increase in reserve assets in Q2 (Chart 3.10 and Table 3.A).

Among the BoP components, the current account remained in surplus in Q2 (Box 6 analyses the structural determinants of the current account surplus in Hong Kong). The surplus was smaller than those in the preceding quarters, mainly due to a net outflow of external factor income and a rise in the visible trade deficit, with the former largely affected by income payable abroad associated with equity investment.

The (non-reserve) capital and financial account continued to record a net outflow in Q2, as the net outflows from portfolio investment and direct investment were larger than the net inflows from other investment and financial derivatives. Among the components, there was a notable reversal from net inflows to net outflows in portfolio investment, amounting to 22.4% of GDP (Table 3.A). This was partly driven by Hong Kong residents buying (new) shares of Mainland companies, which are treated as foreign equity in the BoP statistics.

On the other hand, the "Other Investment" account, which includes mainly offshore loans and deposits of the banking and non-bank sectors, recorded a significant net inflow in Q2. The banking sector accounted for a large part of this net other investment inflow, with a marked expansion in currency holdings and deposits by non-residents. It should be remembered that fund flows related to the other investment account have always been volatile, reflecting the role of Hong Kong as an international financial and banking centre.

The latest information indicates a further increase in reserve assets towards the end of the reporting period.

Box 6
Structural determinants of current account surplus in Hong Kong

Chart B6.1
Current account and net foreign asset position

Source: HKMA.

Hong Kong as a city-state economy has registered current account surpluses for much of the past two decades. As a result, the economy has accumulated a sizable net foreign asset position, equivalent to over 250% of GDP in 2005 (Chart B6.1). Leung (2006) analyses the nature of the current account surplus and identifies factors that can explain its medium-term movements, focusing on saving-investment balance and structural changes in the domestic economy.[16] To this end, a multiple regression analysis is done to relate movements in the current account balance to a set of structural variables.

Empirical results show that the current account surplus is positively related to terms of trade, volatility of output gap, trade openness, the M2-to-GDP ratio and the non-service-sector-to-GDP ratio, and is negatively associated with the old age dependency ratio. Among the explanatory variables, terms of trade, volatility of output gap and trade openness are found to be most important in explaining movements in the current account balance (Table B6.A explains the economic rationale for their relationship with the current account balance).

From a saving-investment perspective, the joint statistical significance of terms of trade, volatility of output gap, and trade openness supports interpretation of Hong Kong's current account surplus from the perspective of accumulation of net foreign assets. As a small and highly open economy, Hong Kong is specialised and subject to high income volatility in the face of terms of trade shocks and business cycle fluctuations, with relatively concentrated domestic investment opportunities. As a result, Hong Kong residents have incentives to run current account surpluses to accumulate substantial net foreign assets for income smoothing and risk diversification purposes.

Table B6.A
Major determinants of current account balance

Variables	Economic relationship
Term of trade	A terms-of-trade improvement represents a rise in transitory income, which leads to a rise in savings rather than consumption, contributing to the current account balance.
Volatility of output gap	Economic uncertainty associated with higher output volatility increases precautionary savings and reduces incentive to pursue new investment, increasing the current account balance.
Trade openness	A higher trade openness ratio in Hong Kong indicates increasing volume of trade flows being processed by Hong Kong to generate external income through service exports, increasing the current account balance.

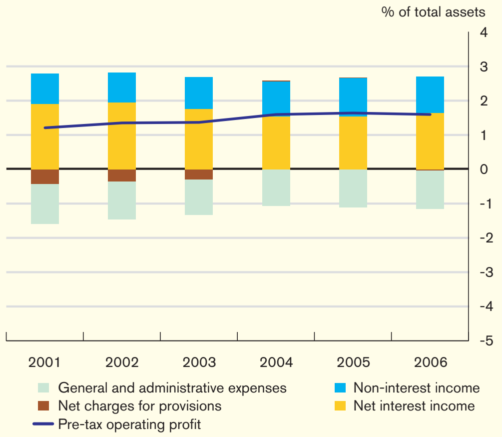
[16] Leung, Frank (2006) "Structural Determinants of Hong Kong's Current Account Surplus", *HKMA Research Memorandum 14/2006*, October 2006.

Based on reasonable assumptions on the future path of the structural determinants, a medium-term projection on the current account balance can be made. The current account is projected to average 4.4% of GDP over the next decade, smaller than the historical average surplus of 5.8% of GDP, reflecting (1) more intense competition for intermediation of China trade from other Mainland cities (which reduces the pace of generation of external income through service exports); (2) an aging population (which reduces savings and hence the current account balance); and (3) a deterioration of terms of trade as a result of expected renminbi appreciation.

Banking sector performance

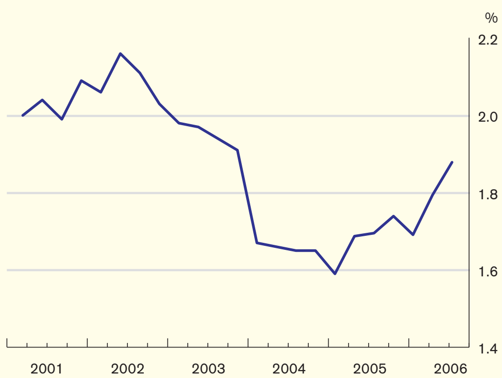
Retail banks continued to register steady profits underpinned by improved net interest margins and increased loan volume. They remained well-capitalised and highly liquid. While there were some signs of a modest deterioration in the quality of credit card lending, banks' asset quality remained healthy. However, the industry continued to face the challenge of strong deposit growth far exceeding domestic credit expansion. Given limited lending opportunities, and with funding costs falling to a low level partly due to strong capital inflows, price competition has intensified, particularly in the mortgage market, and may have put pressure on banks' interest margins again. In this environment, the basis risk that banks are exposed to in relation to a possible reversal of capital flows needs to be closely monitored.

Chart 3.11
Profitability of retail banks



Note: The figure for 2006 is the annualised figure up to 2006 Q3.
Source: HKMA.

Chart 3.12
Net interest margin of retail banks



Source: HKMA.

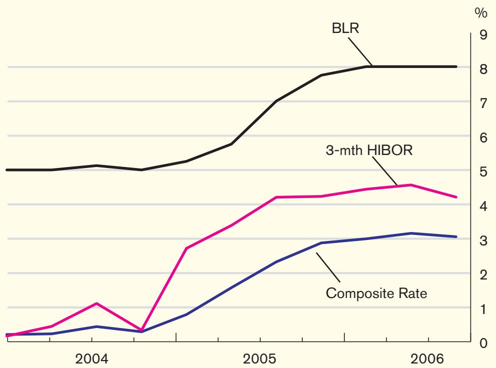
3.5 Profitability and capitalisation

Profitability

Retail bank profitability, measured by pre-tax operating profit as a percentage of total assets, remained steady in 2006 (Chart 3.11). Profitability was underpinned by a steady increase of net interest income, which more than offset higher general and administrative expenses arising from a significant increase in staff and rental expenses, and a shift of banks from a position of making net write-backs of provisions in 2005, to making modest net new charges for provisions in the first three quarters of 2006.

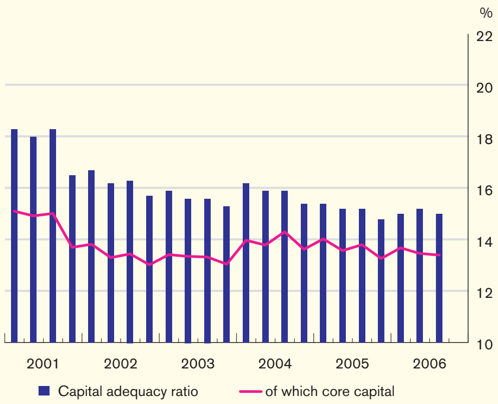
The net interest margin improved further during the second and third quarters of 2006, albeit still at a relatively low level, after a brief dip in the first quarter (Chart 3.12). During the first 10 months of 2006, the composite interest rate, which reflects the average cost of funds of retail banks, rose by 15 basis points, compared with a 25 basis-point rise in the Best Lending Rate (BLR), and a 20 basis-point fall in the three-month HIBOR

Chart 3.13
Composite interest rate



Note: End-of-period figures
Source: HKMA.

Chart 3.14
Capitalisation of locally-incorporated AIs



Source: HKMA.

(Chart 3.13).[17, 18] The intensification of price competition in recent months, particularly in the mortgage market, with some banks offering mortgages at BLR minus 3.0% and HIBOR-based mortgage products, may have again put pressure on interest margins.

Competition could benefit borrowers by offering lower rates, but it could also weaken banks' ability to withstand adverse developments. It is important to monitor the extent of competition in the sector and how it has evolved over time. Box 7 provides an assessment of the competition in Hong Kong's banking sector, using the Panzar-Rosse approach. It confirms that the degree of competition in Hong Kong's banking sector was fairly high in recent years.

Capitalisation

The average consolidated capital adequacy ratio of locally- incorporated authorized institutions (AIs) remained steady at 15.0% from the *June Report* to the end of September 2006 (Chart 3.14). This resulted from a similar pace of expansion of the capital base (up 8.6%) and that of risk-weighted assets (up 8.4%). There has been a general declining trend in the consolidated capital adequacy ratios since 1999, probably reflecting improved efficiency in capital utilisation and consolidation in the sector. Despite this, the consolidated capital adequacy ratio remains well above the minimum international standard of 8%. Core capital comprised 89.2% of the capital base and the ratio of core capital to risk-weighted assets was at a high level of 13.4% at the end of September 2006.

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17 Best lending rate refers to the rate quoted by The Hongkong and Shanghai Banking Corporation Limited.

18 Banks upward adjusted their BLRs and saving deposit rates by 25 bps on 28 March 2006.

Box 7
Competition in Hong Kong's banking sector: A Panzar-Rosse assessment

This box re-examines the issue of competition in Hong Kong's banking sector, which was first studied by Jiang et al. (2004).[19] In the previous study, the banking sector was found to be highly competitive during the period 1992-2002, despite significant changes in the operating environment, including bank mergers and acquisitions and relaxation of regulatory restrictions, which were either completed or took place around 2001 and 2002.

With the effects of major market consolidation and liberalisation now being more fully realised, this analysis provides a timely re-assessment of the competitive conditions of the banking industry and evaluates how the extent of competition has changed in the years subsequent to the previous study. It also aims to provide more accurate assessments with the aid of a panel dataset of retail banks in Hong Kong with a longer time series of data up to the end of 2005.[20]

Similar to the previous study, the competitive condition is assessed based on the Panzar-Rosse approach. By estimating the responsiveness of revenue to changes in input costs of banks from their revenue functions, the approach calculates a summary figure known as the H statistic, which ranges between negative infinite and one. A value closer to one suggests a more competitive market structure, while non-positive numbers imply a monopoly market. If the market is characterised by monopolistic competition, H will be between zero and one (Table B7.A).

Table B7.A
Competitive Structures and the *H* statistic

Competitive Structure	Values of H
Monopoly	$H \leq 0$
Monopolistic Competition	$0 < H < 1$
Perfect Competition	$H = 1$

19 Jiang et al. (2004), "Banking Sector Competition in Hong Kong-Measurement and Evolution Over Time", *HKMA Research Memorandum*.

20 In Jiang et al. (2004), the analysis was significantly restrained by data limitation, in particular the relatively small number of observations from industry level data which precluded the construction and testing of more complicated models, such as the relationship between competitive pressures and bank size in Hong Kong.

Table B7.B
Summary Statistics on the Sample (1991 Q1 – 2005 Q4)

Variables#	Median	Mean
Total Revenue (HK$ mn)	584	1,169
Unit price of labour	0.0015	0.0019
Unit price of funds	0.0122	0.0115
Unit price of capital	0.6995	3.6293
Total assets (HK$ mn)	32,352	76,628
Capital adequacy ratio (%)	19.7	25.9
Deposit mix (%)	83.1	78.6
Growth (%)	1.200	1.123
Inflation (%)	0.250	0.232

Notes: (1) The unit price of labour is computed as the ratio of staff expense to total assets.

(2) The unit price of funds is proxied by the ratio of interest expense to total funding (the sum of deposits from customers, due to banks, amount payable under repos and negotiable debt instruments issued and outstanding).

(3) The unit price of capital is derived as the ratio of expenses other than staff and interest expenses to fixed assets.

(4) Deposit mix is defined as the ratio of deposits from customers to bank's funding.

Source: HKMA.

A panel dataset of retail banks in Hong Kong from 1991 Q1 to 2005 Q4 is used to estimate the model parameters. In this study, total revenue[21] is used rather than gross interest revenue to account for the growing off-balance sheet business, which mainly generates fees and commissions-based incomes. Banks are considered as employing three factor inputs: labour, funds, and capital. The capital adequacy ratio and deposit mix are adopted as control variables to reflect the differences in risk and the funding structure of banks respectively. In addition to the bank characteristics, two macroeconomic variables are included - Hong Kong's real GDP growth rate and inflation rate. Table B7.B provides summary statistics on the sample.

The overall competitive condition during 1991-2005 is assessed by regressing scaled revenue (or unscaled revenue) on the explanatory variables with a constant *H* statistic for the entire sample period.[22] The *H* statistics are estimated to be around 0.64, suggesting that the banking sector can be characterised as monopolistic competition from 1991-2005. Statistical results also suggest that the market can neither be classified as perfect competition nor monopoly. Nevertheless, the degree of competition was fairly high.

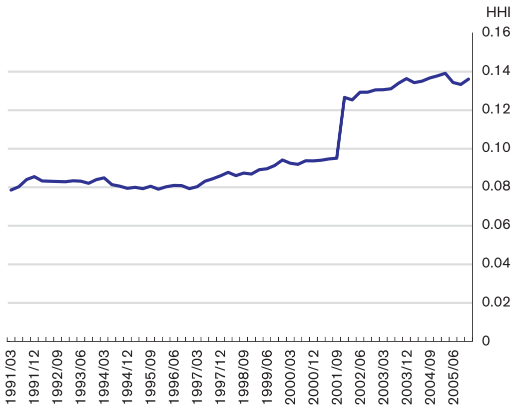
[21] Total revenue includes gross interest revenue and non-interest revenue.

[22] Specifically, two forms of revenue are considered. An equation for scaled revenue function is specified by

$$\log\left(\frac{R_{it}}{TA_{it}}\right) = \alpha_0 + \sum_{k=1}^{K} \alpha_k \log w_{it}^k + \mathbf{x}_{it}\boldsymbol{\beta} + \varepsilon_{it}$$

, where R is the revenue; TA is the total assets; w^k is the unit price of factor k; $\mathbf{x}$ is a vector of control variables; ε is the disturbance term; i and t denote bank and time respectively. The *H* statistic is the sum of α_1 to α_K in this specification. In addition to this specification, an equation for unscaled total revenue, which replaces the dependent variable by $\log(R_{it})$ with the variable *TA* controlled as an explanatory variable, is also considered. The specification of the unscaled total revenue is a special case of the scaled revenue function if the coefficient estimate of *TA* in the unscaled total revenue function equals to one. The value of the coefficient of TA facilitates the identification of the presence, or absence of scale economies. For details, see Wong et al. (2006), "Competition in Hong Kong's Banking Sector: A Panzar-Rosse Assessment", *HKMA Research Memorandum*.

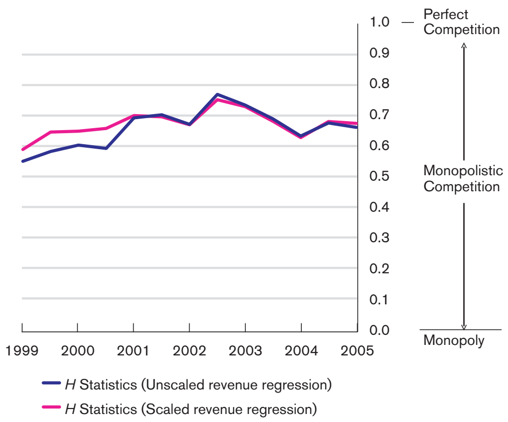
Chart B7.1
Major Changes in Market Concentration around 2001



Notes: 1. The HHI is the sum of the squared market shares of assets of all the retail banks in the market, ranging from zero to one. A large number of banks, each with a small share, produce an HHI close to zero. A monopolist bank with a 100 percent share produces an HHI of one.

Source: Staff estimates.

Chart B7.2
Rolling estimates of *H* statistics



Source: Staff estimates.

To examine the effect of the structural changes in the banking sector on the evolution of the degree of competition over time, *H* statistics for the period 1991 Q1 - 2001 Q2 and that for the period 2001 Q3 - 2005 Q4 are separately estimated. The time point 2001 Q2 is chosen to distinguish the two periods as most of the major bank consolidations, which had a substantial impact on market concentration, occurred in 2001 and 2002.[23] At the same time, major relaxation of regulatory restrictions, including interest rate deregulation and removal of branching restrictions for foreign banks, and certain market entry criteria, were also either completed or took place around this time. As shown in Chart B7.1, the degree of market concentration as measured by the Herfindahl-Hirschman index (HHI) increased sharply around the second half of 2001. The estimation results found that while the *H* statistics for the period 1991 Q1 - 2001 Q2[24] are slightly higher than the *H* statistics for the period 2001 Q3 - 2005 Q4,[25] the competitive condition was not statistically different between the two periods. A time series of rolling estimates of the *H* statistic from 1999 to 2005, which are generated by a series of rolling regressions of scaled and unscaled revenues, show similar results - depicted in Chart B7.2, the *H* statistic estimates move around 0.6 to 0.8 between 2001 and 2005 and do not have a persistent upward or downward trend. The empirical result re-confirms the previous findings that the degree of competition was fairly high during the period 1992-2002, and suggests that competitive pressures have been maintained in subsequent years, notwithstanding significant changes in the operating environment.

23 Details of the consolidations can be found at Table 1 of Jiang et al. (2004).

24 For the period 1991 Q1 - 2001 Q2, $H = 0.683$ in scaled revenue regression and $H = 0.690$ in unscaled revenue regression.

25 For the period 2001 Q3 - 2005 Q4, $H = 0.659$ in scaled revenue regression and $H = 0.656$ in unscaled revenue regression.

For the relationship between competitive conditions and bank size, estimation results show that the H statistic among larger banks has a slightly higher value than that of smaller banks.[26, 27] Interestingly, the hypothesis that the H statistic among larger banks equals the H statistic of smaller banks is rejected at the 1% level, indicating that competitive pressures among larger banks are higher than that among smaller banks. This suggests that while the two groups compete keenly in local retail markets on products such as mortgages and credit cards, larger banks may be subject to even stronger pressures from other competitors at regional or international levels in the corporate banking market, wealth management and other off-balance sheet activities, where they are more heavily involved than smaller banks.

Competition could lower financial intermediation costs and contribute to improvements in economic efficiency. However, since it may also reduce market power and the profitability of banks, it could weaken their ability to withstand adverse developments. It is important for policymakers to know the extent of competition in the sector and how it has evolved over time. While relaxation of regulations and advances in technology tend to increase competition in the banking system, the effect of consolidation may depend on the prevailing market settings. To the extent that bank consolidation in recent years may have hampered competition, regulatory liberalisation and technological progress appear to have largely offset the adverse effect. The emergence of a number of larger banks through mergers and acquisitions, which should be more capable of competing with existing large banks, may have also contributed. Nonetheless, with bank consolidation expected to continue, how market concentration can impact on competition in the years to come needs to be closely monitored.

[26] For larger banks, $H = 0.673$ in scaled revenue regression and $H = 0.675$ in unscaled revenue regression.

[27] For smaller banks, $H = 0.648$ in scaled revenue regression and $H = 0.651$ in unscaled revenue regression.

3.6 Liquidity and funding

As intermediaries transforming deposits into less liquid loans, banks inevitably are subject to liquidity risk. It is important to monitor such risk and ensure that banks are sufficiently liquid to fulfil both expected and unexpected financial commitments as they arise.

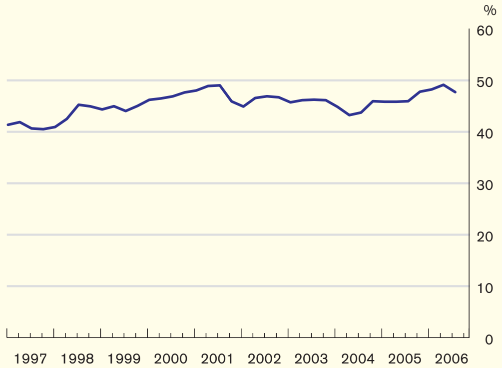
In 2006 Q3, the average liquidity ratio of retail banks rose further to 47.7%, substantially higher than the regulatory minimum of 25% (Chart 3.15). By September 2006, net placements to banks abroad and debt securities holdings, which are relatively liquid, accounted for substantial portions – some 17% and 24% respectively – of retail banks' total assets.

In addition to the holding of liquid assets, banks can obtain liquidity from the interbank market. Liquidity conditions there form a major determinant of banks' vulnerability to liquidity risk because they govern how easily banks can raise funds with short notice through interbank borrowing. Since the *June Report*, the interbank liquidity has remained stable. The Aggregate Balance rose to HK$1.35 billion in October 2006, with small fluctuations due to interest payments on Exchange Fund paper.

The structure of banks' liabilities is a longer-term factor influencing the degree of liquidity risk. Customer deposits have been the most important funding source of retail banks. Since September 1998 (Chart 3.16), they have accounted for over 70% of retail banks' liabilities. Its share rose slightly to 75.0% in September 2006 from 74.3% in December 2005. Generally speaking, a substantial customer deposit base is advantageous for banks' financial strength, since retail funding is typically less expensive and less volatile than wholesale funding.

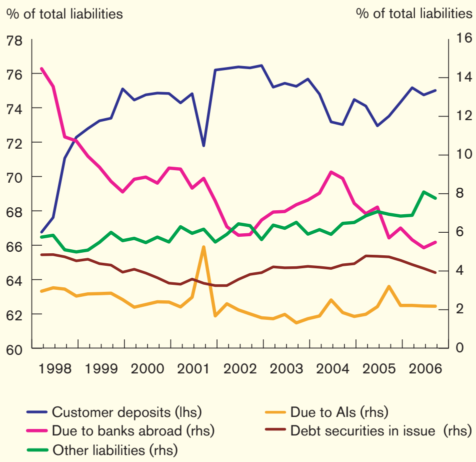
As interest rates remained at a high level, shifting deposits from savings to time deposits continued. Reflecting this, the share of time deposits rose further to 60.2% in September from 59.8% in March 2006, while that of savings deposits decreased to 32.3% from 33.0% (Chart 3.17). This has helped mitigate the problem of

Chart 3.15
Liquidity ratio of retail banks



Source: HKMA.

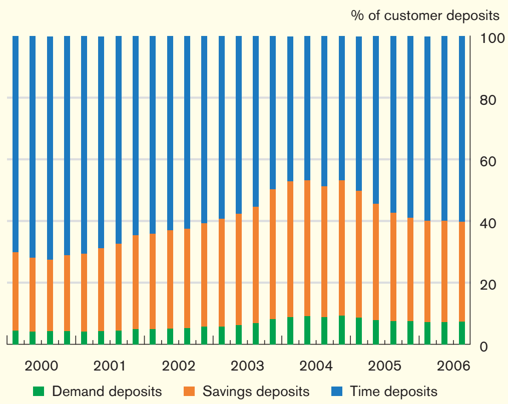
Chart 3.16
Liabilities structure of retail banks



Note: Debt securities comprise negotiable certificates of deposit and all other negotiable debt instruments.

Source: HKMA.

Chart 3.17
Structure of customer deposits (retail banks)

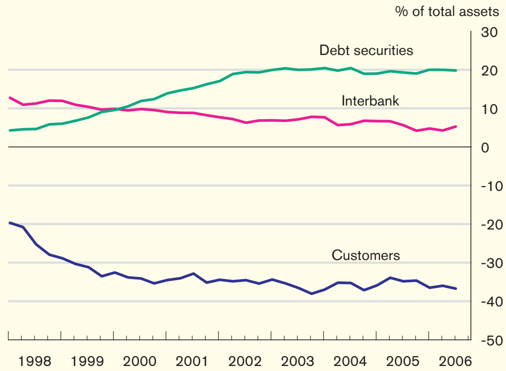


Source: HKMA.

maturity mismatch between retail banks' assets and liabilities, but increased the cost of retail funding. However, should US interest rates start to move downwards, as expected by some market players, a reversal of the direction of deposit substitution may take place, and could have an impact on the maturity mismatch of banks' assets and liabilities.

The liquidity level of banks also depends on the extent to which customer deposits are used to finance illiquid loans. As a whole, retail banks in recent years have maintained a negative 'customer funding gap', with the amount of customer loans being smaller than the amount of customer deposits. This gap in September 2006 was -36.9% (Chart 3.18), and made retail banks in the aggregate a net provider of interbank loans, which typically have short maturities, and net holder of debt securities comprising negotiable certificates of deposits and other negotiable debt instruments (which are liquefiable assets). At the end of September 2006, the Hong Kong dollar loan-to-deposit ratio was at 79.1% for the banking sector as a whole, and at 73.1% for retail banks (Chart 3.19). Such a structure suggests that liquidity risk may not be a major concern.[28]

Chart 3.18
Retail banks' funding gaps, by type of funding

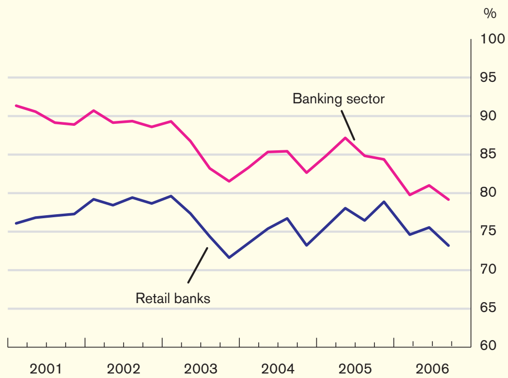


Notes: 1 Measured as assets less liabilities in the balance sheet categories shown, as a percentage of total assets.
2 'Customers' comprises all non-AI borrowers and depositors.
3 Debt securities comprise negotiable certificates of deposit and all other negotiable debt instruments.

Source: HKMA.

The extent of counterparty exposures among AIs is of great importance because a shock that originates at one AI may quickly spread to the rest of the banking sector. As retail banks have a strong customer deposit base, interbank funding does not constitute a significant funding source for them. On the other hand, they are net lenders in the market. For retail banks as a whole, the amount due to other AIs in Hong Kong accounted for only 2.1% of total liabilities in September, while the amount due from other AIs in Hong Kong contributed to a modest 7.4% of their total assets, suggesting that the contagion risk stemming from interbank exposures is also not a significant concern.

Chart 3.19
Hong Kong dollar loan-to-deposit ratios



Source: HKMA.

3.7 *Interest rate risk*

Given that the pricing of a sizeable part of interest-bearing assets of banks is on a floating rate basis, intermediation spreads should remain relatively stable in

[28] The excess in liquidity has, however, caused pressures on profitability. (also see footnote 39)

the face of volatile interest rates. However, it should be noted that for some banks, a large portion of their assets is priced with BLR, in particular the mortgage portfolio, but their funding is partly determined by HIBORs and time deposits linked to HIBORs. The different responses of BLR and HIBORs to changes in US interest rates could put pressure on banks' interest margins.

To reduce the basis risk in mortgage lending, some banks have recently been keen to promote hybrid HIBOR-based products in the mortgage market. To attract customers, these products are generally priced with a fixed spread on HIBOR, and with a BLR-based cap. Such a product design can reduce the basis risk of mortgage lending in a low-HIBOR market environment.[29] However, banks ultimately bear the basis risk as if the loans are priced based on BLR, should there be a sharp rise in HIBORs as a result of a sudden reversal in market liquidity conditions, but BLRs increase at a more moderate rate (Box 8).

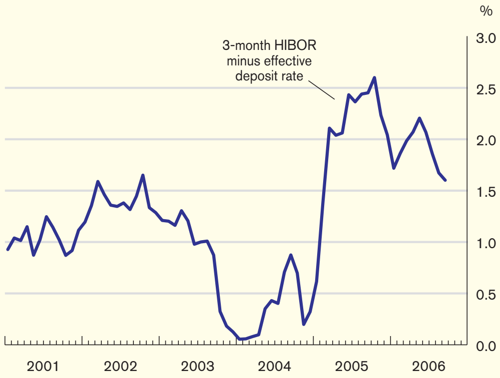
An examination of the gap between recent growth in Hong Kong dollar deposits and Hong Kong dollar loans reveals that the increase in deposits, which was mainly due to the continued rise in time deposits, significantly outpaced the loan growth (Chart 3.20). To the extent that the recent strong growth in Hong Kong dollar time deposits can be attributed to inflows of capital, which were partly stimulated by increased stock market activities, especially IPOs, such deposits may be largely of short-term maturity and could be less stable compared with other customer deposits. Therefore, the nature and maturity of such deposits should be closely monitored. Banks holding a significant amount of these deposits, or with a high proportion of their funds obtained from the interbank market, may be exposed to higher interest rate risks. The interest margins of their loan portfolios funded with these deposits may be squeezed in the event of a tightening in liquidity due to a reversal of capital flows resulting from a change in market sentiment.

Chart 3.20
Retail banks' gap of HKD deposits and loans

Note: Defined as HKD deposits minus HKD loans.
Source: HKMA.

[29] However, borrowers may face higher volatility in their mortgage repayments if their loans are based on HIBORs.

Chart 3.21
Spreads between HIBOR and effective deposit rate



Source: HKMA.

Changes in interbank rates also affect interest income directly through HIBOR-based lending. Because retail banks as a whole are net lenders in the interbank market, the decline in HIBORs relative to the effective deposit rate has lowered margins on HIBOR-based lending (Chart 3.21). It has also lowered returns on free funds. Retail banks active in the inter-bank market may have found the margin of their HIBOR-based lending come under pressure.

Box 8
Option values of BLR-linked interest rate caps for HIBOR-linked mortgage plans

Price competition in the mortgage loan market has become increasingly intense in recent months, with many retail banks aggressively promoting HIBOR-linked mortgage plans in view of the currently low market interest rate environment. This has brought the effective mortgage rates offered by some banks to the level of 4.6%, given that HIBORs have been staying around 4%. This compares with the effective rate of 5% for mortgages offered by one major bank which sets its mortgage rate at BLR minus 2.75%.[30] In order to attract customers, the mortgage rates are capped at the banks' BLRs minus some mark-ups, which range from BLR minus 2.5% to BLR minus 3%.

Such a cap is equivalent to an "option" which may be exercised by borrowers if there is a sudden sharp rise in HIBORs, but BLRs increase at a more moderate rate. It is, therefore, advisable that in their management of basis risk, banks should take into account the potential cost implied by the option in addition to their funding structure when the HIBOR-linked mortgage loans are priced.[31]

This box has two sections. The first section explains the option value of the cap and its characteristics. The second section presents technical details of the derivation of the option value.

The option value of the cap

The value of the cap arises from the fact that the short-run pass-through of HIBOR increases to the BLR is

[30] The bank's BLR is currently 7.75%.

[31] Such a product design can reduce the basis risk of mortgage lending in low-HIBOR market environments. However, banks ultimately bear the basis risk as if the loans are priced based on BLR when the options are exercised.

Table B8.A
Impact on interest margin of the HIBOR-linked mortgage plan under a 200 bps rise in 3-month HIBOR

	Current (as of 30 Nov 06)	Scenario with 3-month HIBOR increasing by 200 bps
Increases in retail rates[1]		
BLR	–	53.3 bps
Savings deposit rate (SAV)	–	53.3 bps
Time deposit rate (TDR)	–	98.6 bps
Effective mortgage rate		
HIBOR-linked[2]	4.73%	6.73%
BLR-linked cap[3]	5.20%	5.73%
Funding cost		
Mixed funding[4]	3.70%	4.81%
HIBOR funding	4.13%	6.13%
Mortgage margin		
Mixed funding	1.03%	0.92%[5]
HIBOR funding	0.60%	-0.40%[5]

Notes: 1. The estimated BLR and TDR increases are based on the error-correction models in Wong et al. (2005), which assesses the pass-through of changes in wholesale interest rates (i.e., HIBOR) to retail interest rates (i.e., BLR, SAV and TDR). The estimated pass-through arises from the short-term impact only, which reflects the response of the BLR, SAV and TDR in the immediate month only. However, in the long term, the impact will be much higher. For instance, under the scenario of a 200 bps increase in 3-month HIBOR, the long-term impact on BLR and TDR will be 147 bps and 190 bps respectively.

2. Based on 3-month HIBOR of 4.13% as of 30 November 2006 and the HIBOR-linked mortgage plan of HIBOR plus 0.6%

3. When the HIBOR-linked mortgage rate exceeds the BLR-linked cap, the effective mortgage rate will shift to be based on BLR. The BLR-linked cap is assumed to be BLR minus 2.8%. Banks currently set their BLRs at either 7.75% or 8%. The latter is used for the calculation in this table.

4. This is based on a hypothetical bank with a funding composition of: 18% savings deposits, 54% time deposits and 24% interbank funding. The funding costs with a mixed funding under the two scenarios are based on the assumption that the SAV increases by the same magnitude as BLR.

5. Mortgage margins are calculated based on the BLR-linked cap.

Source: Staff estimates.

Table B8.B
Numerical results of the option premuim of BLR-linked cap

Time to maturity (No. of years)	Forward 3-month HIBOR+ 0.6%	Implied BLR - 2.8%	Option Premium (in %) (ρ= 0.91)	Option Premium (in %) (ρ= 0.45)	Amortised Principal of $1,000,000
0.25	4.67	5.18	0.12	1.36	987,289
1	4.57	5.16	2.17	8.41	928,688
3	4.79	5.22	15.58	32.59	760,591
5	4.78	5.21	24.02	46.63	573,788
7	4.93	5.25	36.29	64.37	366,197
9	4.95	5.26	43.43	75.41	135,503
9.75	4.95	5.26	45.72	78.99	42,521

Source: Staff estimates.

smaller than one.[32] In other words, the increase in BLR will be smaller than that of HIBOR. The BLR-linked cap, when triggered, may result in a smaller increase in the effective mortgage rate than the rise in banks' cost of funds, thus squeezing the interest rate margin. The final impact on the interest rate margin will depend on the funding structure of the bank.

To illustrate this, a scenario analysis is applied to a hypothetical bank offering HIBOR-linked mortgage plans of 3-month HIBOR + 0.6% with a cap of BLR - 2.8%. The composition of funding of this bank is assumed to be 4% in demand deposits, 18% in savings deposits, 54% in time deposits and 24% in interbank funding. Under the scenario of 3-month HIBOR increasing by 200 bps, the squeeze on the interest rate margin will be 100 bps if the loan is solely funded with 3-month HIBOR, and 11 bps if the loan is financed by a mix of funds as the hypothetical bank (see Table B8.A).[33]

The value of such a "cap" can be derived from market data. As shown in the second section, for a 10-year residential mortgage loan (RML) with an interest rate of min [3-month HIBOR + 0.6%, BLR - 2.8%] and the correlation between HIBOR and BLR at 0.91, the premium of this BLR-linked cap is estimated to range from 0 bps (of time to option maturity = 3 months) to 46 bps (of time to option maturity = 9.75 years), and the amortisation-adjusted premium is a tangible 17 bps, which is an average of the caplet premiums weighted by the 10-year amortised principals. This premium means that a borrower would have to pay an extra interest of 17 bps per annum for the RML if the cap were not free (see Table B8.B).

The value of the cap is found to be sensitive to the correlation between the two reference interest rates. If the correlation between the 3-month HIBOR and BLR drops to 0.45 (i.e., the value observed during the period from March 1997 to September 1998), the amortisation-adjusted premium will increase to 34 bps.

32 Based on the error-correction models in Wong et al. (2005), "Interest Rate Risk in the Pricing of Banks' Mortgage Lending", *HKMA Research Memorandum*, http://www.info.gov.hk/hkma/eng/research/RM05-2005.pdf, which assesses the pass-through of changes in wholesale interest rates to retail interest rates.

33 If the BLR-linked cap is removed, the margin will be widened by 89 bps when the bank is financed by a mix of funds.

The derivation of the option value

The BLR-linked cap offered by banks guarantees that the rate charged on an RML at any given time will be the lesser of the prevailing rate (i.e., HIBOR + x %) and the cap rate (i.e., BLR - y %), where x and y are predetermined values. Similar to a conventional cap in which the cap rate is a fixed rate, the BLR-linked cap can be viewed as a portfolio of call options on HIBOR with the payoffs embedded in the payments of an RML. The individual options comprising a cap are sometimes referred to as caplets.

A BLR-linked caplet is an option to exchange (HIBOR + x %) denoted by H for (BLR - y %) denoted by B with volatility σ_H and σ_B respectively. As different caplets have different times to maturity, HIBOR and BLR used for option valuation are forward HIBOR and BLR implied by Hong Kong dollar interest rate swaps.[34] This means that for a caplet at 1 year from now, the underlying HIBOR is a 1-year forward rate. The value p of the caplet is

$$p = HN(d_1) - BN(d_2), \qquad (1)$$

where

$$d_1 = \frac{\ln(H/B) + \sigma^2 t/2}{\sigma\sqrt{t}}$$

$$d_2 = d_1 - \sigma\sqrt{t}$$

$$\sigma = \sqrt{\sigma_H^2 + \sigma_B^2 - 2\rho\sigma_H\sigma_B},$$

ρ is the correlation between HIBOR and BLR, and $N(.)$ is the cumulative normal distribution function.[35]

---

[34] The response of BLR to changes in HIBOR is derived from the error-correction models in Wong et al. (2005).

[35] It is the formula for pricing options to exchange one asset for another (see Hull J. (1997), *Option, Futures and Other Derivative*, 3rd Edition, page 468). The correlation, ρ, and BLR are assumed to be continuous time measures.

The model parameters, σ_H , σ_B and ρ, can be estimated from the market and historical data. The implied volatility of σ_H is available in the conventional interest rate cap and floor market. For a 10-year RML, the market σ_H of 16.6% is used and the forward HIBOR is implied from a 10-year interest rate swap.[36] Based on our estimations, the annualised historical volatility σ_B is about 8.6% and the long-run correlation (ρ) between 3-month HIBOR and BLR is about 0.91.

[36] Market data as of 30 November 2006 are used.

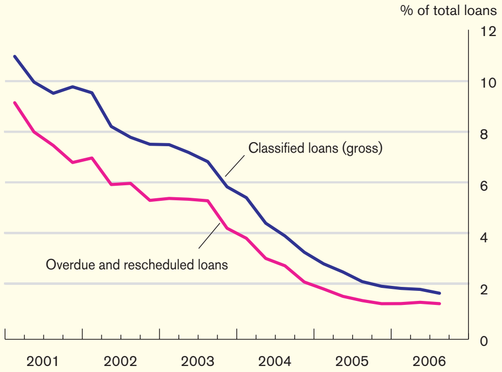
3.8 Credit risk

The proportion of classified loans and that of overdue and rescheduled loans in total loans remained low. This is in line with the continued growth of the domestic economy, which has supported corporate profitability and household income. During the six months to September 2006, the asset quality remained steady, with the classified loan ratio improving slightly to 1.19% from 1.32% and the overdue and rescheduled loan ratio staying at 0.92% (Chart 3.22).

Domestic lending has started to pick up since 2006 Q2 on the back of favourable economic conditions, albeit at a moderate pace. Growth in loan demand in different economic sectors has been mixed (Table 3.B). With weakening property market sentiment, property-related loans generally decreased in the third quarter. Credit for building, construction, property development and investment declined slightly by 0.7%. The outstanding stock of residential mortgage loans fell steadily, as new loans, which have been stable in recent months, were more than offset by repayments on existing mortgage loans (Chart 3.23). Overall, the share of property-related loans in total domestic lending declined to around 49% in September, from 51% in the *June Report*.

Among other sectors, only loans to the electricity and gas sectors and the manufacturing sector registered declines. With increased stock market activities, in particular IPOs, loans for stockbrokers recorded the biggest quarter-on-quarter increase among the various sectors, followed by lending to information technology, financial concerns, trade financing, credit card advances, and transport and transport equipment.

Chart 3.22
Asset quality measures of retail banks



Source: HKMA.

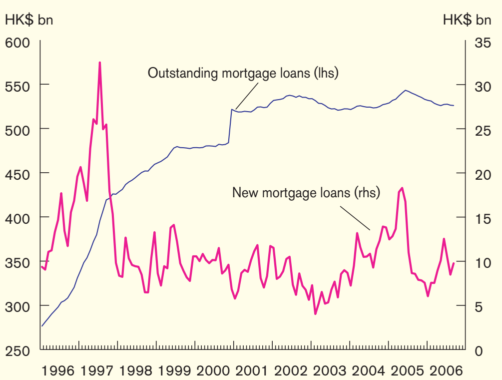
Table 3.B
Loans for use in Hong Kong by AIs

	Quarter-on-quarter % changes				Share of total (%)
	Dec-05	Mar-06	Jun-06	Sep-06	Sep-06
Loans for use in Hong Kong[1]	**2.0**	**-0.3**	**2.8**	**2.2**	
Of which:					
Trade financing	-3.8	-2.4	10.1	4.9	7.4
Mortgages[2]	-1.3	-1.1	-0.6	-0.5	27.3
Manufacturing	6.4	-1.9	3.7	-4.4	5.0
Transport and transport equipment	2.2	-1.0	5.5	0.9	5.9
Electricity and gas	14.6	-10.4	14.9	-0.3	1.6
Information technology	-5.5	4.7	-8.0	17.9	1.2
Building, construction, property development and investment	7.6	0.6	5.7	-0.7	21.9
Wholesale and retail trade	-1.2	0.9	1.9	1.4	4.8
Financial concerns[3]	1.0	3.6	-1.3	6.2	8.9
Stockbrokers	-36.6	5.3	-6.0	620.6	2.2
Credit card advances	15.4	-10.6	2.4	2.5	2.7

Notes: 1 Including trade financing loans.
2 Mortgage loans include loans for the Home Ownership Scheme, the Private Sector Participation Scheme and the Tenants Purchase Scheme.
3 Loans for financial concerns include loans to investment and insurance companies, futures brokers and finance companies.

Source: HKMA.

Chart 3.23
Outstanding and new mortgage loans of surveyed AIs



Note: The marked jump in the outstanding mortgage loans in late-2000 reflected a change in the coverage of banks in the survey.

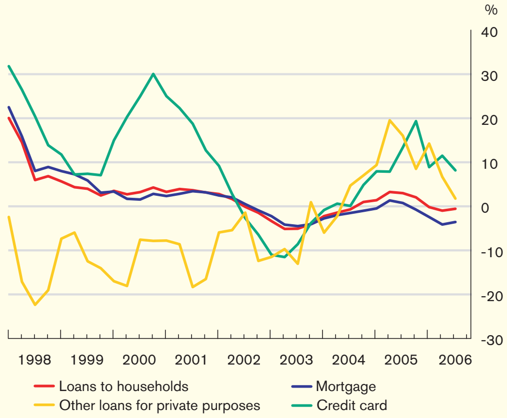
Source: Monthly Survey of Residential Mortgage Lending.

Household exposures

Loans to households accounted for 37.6% of loans for use in Hong Kong in September, declining from 39.1% in the *June Report*.[37] Mortgage lending accounts for a major share of loans to households, while the remainder comprise mainly unsecured lending via credit cards and other personal loans for private purposes. By the end of September, 78.4% of loans to households were used to finance residential properties.

While the stock of residential mortgage loans continued to decrease, credit card lending resumed its growth in 2006 Q2, following a contraction in the first quarter. With the decline in the stock of residential mortgage loans more than offsetting the growth in credit card lending and other lending for private purposes, loans to households dropped further by 0.4% in September from a year earlier, after declining by a year-on-year 0.1% in March 2006 (Chart 3.24). The increasing share of credit card lending and other personal lending for private purposes, which rose from 20.5% in March to 21.6% in September 2006, suggests that banks may have sought profit opportunities by expanding more of their businesses on unsecured consumer lending, which in general, has a higher credit risk compared with mortgage lending.[38]

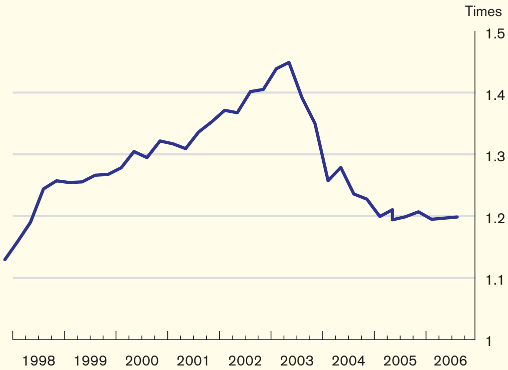
Chart 3.24
Annual growth of lending to households by AIs



Source: HKMA.

The various factors affecting the asset quality of banks' exposure to the household sector have been mixed since 2006 Q1. The rebound in property prices in recent years has strengthened the balance sheets of households. This has generally improved the quality of banks' mortgage portfolios. The effective housing capital gearing, defined as the ratio of market value of total housing stocks to their net asset value (the market value less the outstanding mortgage lending from banks), decreased substantially from 2003 to 2005. It remained steady in the first nine months of 2006 (Chart 3.25).

Chart 3.25
Effective housing capital gearing ratio

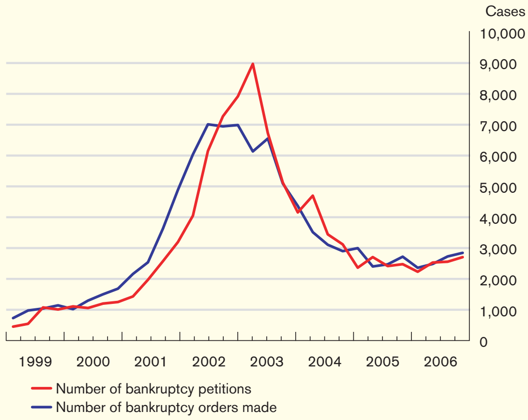


Source: Staff estimates.

[37] Loans to households constitute lending to professional and private individuals, excluding those for business purposes.

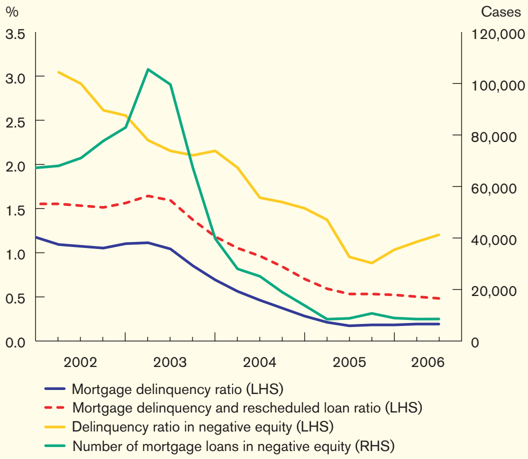
[38] This may not be a problem if the loans are priced correctly.

Chart 3.26
Number of bankruptcies



Source: Official Receiver's Office.

Chart 3.27
Negative equity and mortgage delinquency ratio of surveyed AIs



Notes:
1. The earliest available date for the rescheduled loan ratio, delinquency ratio and number of mortgage loans in negative equity are 2001 Q4, 2002 Q2 and 2001 Q3 respectively.
2. The mortgage delinquency ratio refers to a ratio of total amount of loans overdue for more than three months to total outstanding loans.

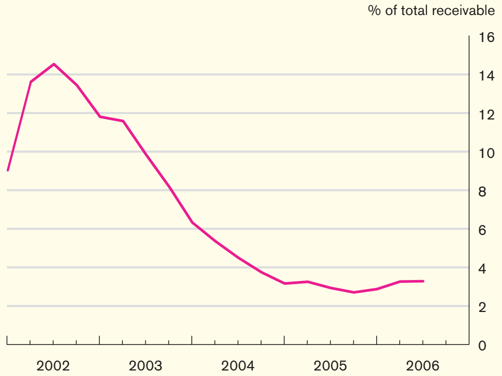
Source: HKMA.

Although labour market conditions have continued to improve since the *June Report*, the improvement in household earnings has not been significant. The unemployment rate declined further to 4.5% in the three months ending October 2006, from 5.1% in the three months ending April 2006, and the nominal payroll per worker rose by 2.2% in 2006 Q2 on a year-on-year basis. However, the real payroll per worker, which measures the purchasing power of earnings, only edged up marginally by 0.1% in 2006 Q2, after a decline of 0.3% in 2006 Q1. The median monthly household incomes also weakened slightly, by 1.2% from March to June 2006. The numbers of bankruptcy orders made and petitions presented in 2006 Q3 increased to 2,699 and 2,838, from 2,525 and 2,479 in 2006 Q1, respectively (Chart 3.26).

In line with these developments and the sluggish property market, there have been signs of a modest deterioration in the asset quality of residential mortgage loans in negative equity and credit card lending. The three-month delinquency ratio of negative equity mortgage loans edged up from 1.04% in 2006 Q1 to 1.21% in 2006 Q3, although the number of negative equity cases fell from 9,193 to 8,813 (Chart 3.27). The charge-off ratio for credit card receivables rose to an annualised rate of 3.30% in September 2006 from 2.89% in March 2006 (Chart 3.28).[39] Nevertheless, the overall quality of banks' mortgage portfolios has remained largely stable since 2006 Q1. The delinquency ratio of overall mortgage remained low at 0.20% in September 2006, up only marginally from 0.19% at the end of March, while the rescheduled loan ratio fell to 0.29% in September 2006, from 0.34% in March (Chart 3.27).

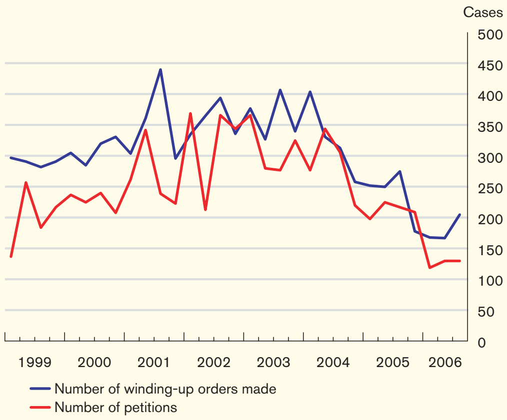
[39] This would be consistent with a deliberate shift by banks along the risk spectrum in search of higher returns. This may not be a problem provided banks are equipped with adequate risk management and the loans are priced correctly.

Chart 3.28
Charge-off ratio for credit card receivables of surveyed AIs



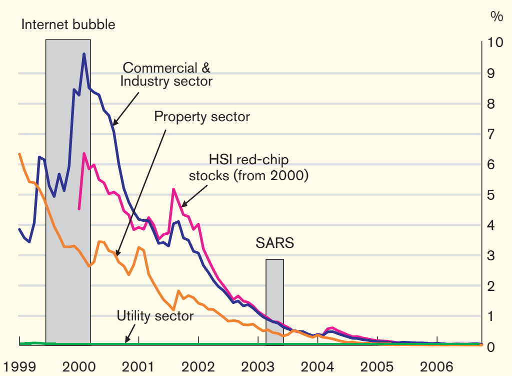
Note: Annualised figures.
Source: HKMA.

Chart 3.29
Winding-up orders and petitions



Source: Official Receiver's Office.

Chart 3.30
Aggregate default probabilities of HSI constituent sector



Source: Staff estimates.

Corporate exposures

In September, loans to corporations accounted for 61.9% of loans for use in Hong Kong.[40] Compared with September 2005, the amount of such loans grew by 11.5%. Generally, loans to corporations are subject to more volatile losses than mortgage lending, which forms the major part of household exposures. A reason for this is that most corporate lending is not collateral based lending, and the available collateral is usually not as robust and simple to manage as residential properties.

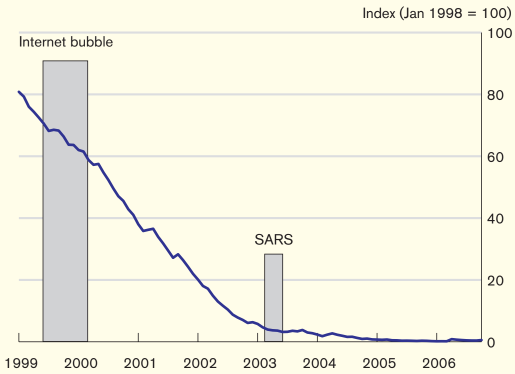
As the economy continued to grow, the credit risk of the corporate sector has diminished. The numbers of compulsory winding-up orders of companies and petitions declined from 1,147 and 1,306 in 2004 to 849 and 955 in 2005 respectively. In the first half of 2006, the numbers were 249 and 335 respectively (Chart 3.29).

Default probability estimates for the corporate sector obtained from a structural model remained low by historical standards.[41] In September 2006, the aggregate estimate of the Hang Seng Index (HSI) non-financial constituent companies was 0.04%, up slightly from 0.03% in March 2006. The estimates for all the HSI constituent sectors and the red-chip constituent stocks also remained low at around their *June report* levels (Chart 3.30).

[40] Loans to corporations comprise loans and advances for use in Hong Kong except lending to professional and private individuals.

[41] Details of the methodology can be found in Yu and Fung (2005), "A Structural Approach to Assessing the Credit Risk of Hong Kong's Corporate Sector", *HKMA Research Memorandum*, http://www.info.gov.hk/hkma/eng/research/RM24-2005.pdf. The approach adopted in this paper can be considered as a point-in-time assessment.

Chart 3.31
Multiple default risk index of the banking system in Hong Kong (Jan 1998 = 100)



Source: Staff estimates.

In addition, the multiple default risk index of the banking system in Hong Kong (Jan 1998 = 100)[42], which serves as an early-warning indicator for systemic risk of the banking system, has declined steadily since 1999, reflecting the economic recovery in Hong Kong and consolidation in the banking sector. The index was at 0.4 in September 2006, indicating that the current systemic risk of the banking sector is low (Chart 3.31).

3.9 Foreign currency position

The overall foreign currency position, including both spot and forward, for all AIs further decreased from the *June Report* to HK$7.3 billion at the end of September 2006, and remained on a downward trend from a recent high of HK$98.5 billion at the end of May 2003. This mainly reflects the unwinding of the sizeable foreign currency positions that were built up following the Asian financial crisis in 1997 and 1998.

Key performance indicators of the banking sector are provided in Table 3.C

[42] Details of the methodology can be found in Yu et al. (2006), "Assessing the Risk of Multiple Defaults in the Banking System", *HKMA Research Memorandum*, http://www.info.gov.hk/hkma/eng/research/RM06-2006.pdf.

Table 3.C
Key performance indicators of the banking sector[1] (%)

	Sep-05	Jun-06	Sep-06
Interest rate[2]			
1-month HIBOR[3]	3.53	4.40	4.05
3-month HIBOR[3]	3.68	4.59	4.29
BLR and 1-month HIBOR spread	3.05	3.60	3.95
BLR and 3-month HIBOR spread	2.90	3.41	3.71
Composite interest rate	2.33	3.16	3.06
		Retail banks	
Balance sheet developments[4]			
Total deposits	1.9	2.2	4.9
Hong Kong Dollar	2.2	1.0	7.3
Foreign currency	1.5	4.0	1.5
Total loans	0.2	3.0	3.2
Loans to customers inside Hong Kong[5]	-0.5	2.4[r]	3.2
Loans to customers outside Hong Kong[6]	19.1	13.0[r]	3.8
Negotiable instruments			
Negotiable certificates of deposit issued	0.4	-3.2	-2.4
Negotiable debt instruments held	0.6	2.6	3.0
Asset quality[7]			
As percentage of total loans			
Pass loans	95.26	96.15[r]	96.44
Special mention loans	3.25	2.55[r]	2.37
Classified loans (gross)[8]	1.49	1.29[r]	1.19
Classified loans (net)[9]	1.06	0.94	0.88
Overdue > 3 months and rescheduled loans	1.00	0.96[r]	0.92
Profitability[10]			
Bad debt charge as percentage of average total assets	-0.05	0.02	0.03
Net interest margin	1.66	1.74	1.79
Cost-income ratio	41.1	41.5	41.9
Liquidity ratio[11]	45.9	49.1	47.7
		Surveyed institutions	
Asset quality			
Delinquency ratio of residential mortgage loans	0.18	0.20	0.20
Credit card receivables			
Delinquency ratio	0.39	0.40	0.40
Charge-off ratio — quarterly annualised (adjusted)	2.95	3.28	3.30
— year-to-date annualised	3.05	2.98	3.02
		All locally incorporated AIs	
Capital adequacy ratio (consolidated)	15.2[r]	15.2	15.0

Notes:

1 Figures related to Hong Kong office(s) only except where otherwise stated.
2 All figures are quarterly averages except the composite interest rates, which are end-period figures.
3 With reference to the HKD Interest Settlement Rates released by the Hong Kong Association of Banks.
4 Quarterly change.
5 Loans for use in Hong Kong plus trade-financing loans.
6 Includes "others" (i.e. unallocated).
7 Figures relate to retail banks' Hong Kong office(s) and overseas branches.
8 Classified loans are those loans graded as "substandard", "doubtful" or "loss".
9 Net of specific provisions / individual impairment allowances.
10 Year-to-date annualised.
11 Quarterly average.
r Revised figure.

4. Outlook, risks and uncertainties

Steady growth and lower inflation are expected to be the main features of the global economy in 2007. With such a benign external environment, Hong Kong's growth is likely to remain strong and inflation moderate. However, the global "soft landing" is subject to a number of important risks. The housing market weakness in the US may be more prolonged than some recent indicators suggest, and the impact on private consumption could be greater. Persistent underlying inflationary pressures in major economies could prompt further monetary tightening. Financial markets may have under-priced some of these risks and volatility could be high should negative shocks materialise. And, medium-term risk factors, such as large external imbalances, persist. Nevertheless, the vulnerability of the Hong Kong financial system to a harder landing of the global economy and volatility of capital flows remains low.

4.1 Global outlook

The global economy has been growing strongly in 2006. In its September World Economic Outlook, the IMF revised upwards 2006 forecast of global growth to 5.1% from its previous projection of 4.9% (Table 4.A). This will make 2006 one of the best years for global growth in the past two decades. Growth has also become better balanced, with the euro area gaining more significantly from its level in 2005 relative to the US, together with slightly more moderate growth in emerging Asia. Nevertheless, global growth is expected to moderate in 2007 with the IMF projecting 4.9% for the year. The Consensus Forecasts also project real GDP in 2007 to moderate from the 2006 levels.

Table 4.A
Global growth and inflation 2005-07

(% yoy)	2005	2006F	2007F
IMF			
Global growth[1]	**4.9**	**5.1**	**4.9**
	(4.8)	**(4.9)**	**(4.7)**
US	3.2	3.4	2.9
Euro area	1.3	2.4	2.0
Japan	2.6	2.7	2.1
Emerging Asia	8.5	8.3	8.2
Global inflation	**3.7**	**3.8**	**3.7**
G-7 economies	2.3	2.6	2.3
Emerging Asia	3.4	3.6	3.5
Consensus Forecasts[2]			
Global growth[3]	**3.4**	**3.8**	**3.2**
US	3.2	3.3	2.5
Euro area	1.5	2.6	1.9
Japan	2.7	2.7	2.0
North East Asia	8.1	8.4	7.4
South East Asia	5.3	5.5	5.2
Global inflation[3]	**2.8**	**2.9**	**2.5**
US	3.4	3.4	2.3
Euro area	2.2	2.2	2.1
Japan	-0.3	0.2	0.4
North East Asia	2.0	1.7	2.2
South East Asia	6.2	7.2	4.2

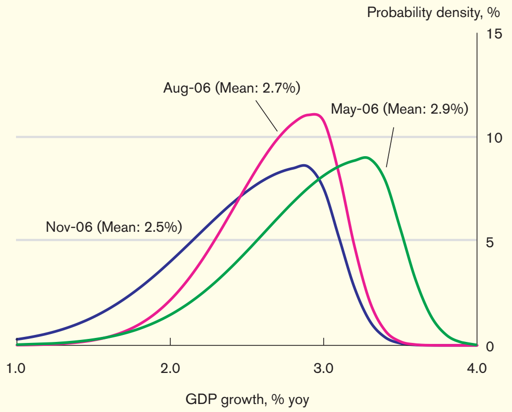
Note 1: Global growth is weighted by GDP at PPP exchange rates. For other aggregates and countries, the IMF weighted by GDP at PPP exchange rates, while the World Bank uses market exchange rates. Figures in brackets are previous forecasts.

2: Euro zone covers the same countries as euro area. North East Asia covers Mainland China, Hong Kong, South Korea and Taiwan, while South East Asia includes the ASEAN economies.

3: Global growth and inflation are weighted by 2005 GDP at average 2005 exchange rates.

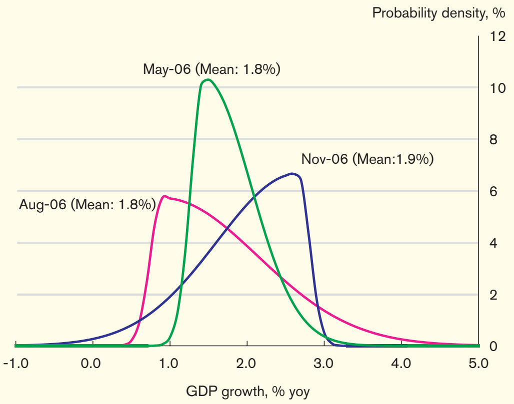
Sources: IMF World Economic Outlook, September 2006 and Consensus Forecasts, November 2006.

Chart 4.1
US: probability distribution of growth forecasts for 2007



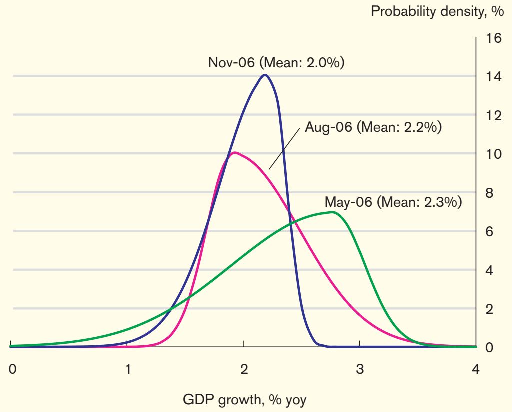
Source: Staff calculations based on Consensus Forecasts.

Chart 4.2
Euro area: probability distribution of growth forecasts for 2007



Source: Staff calculations based on Consensus Forecasts.

Chart 4.3
Japan: probability distribution of growth forecasts for 2007



Source: Staff calculations based on Consensus Forecasts.

In the US, growth was particularly strong in the first quarter, although slowing in the second and third quarters amid a cooling housing market and rising fuel costs. Reflecting this, the IMF projects real GDP growth to reach 3.4% this year before moderating to 2.9% in 2007. The mean of Consensus Forecasts for US growth in 2007 has been declining since May this year to 2.5% (Chart 4.1). The cooling housing market would continue to dampen private consumption and residential investment. Nevertheless, corporate investment should be supported by high capacity utilisation and strong profitability.

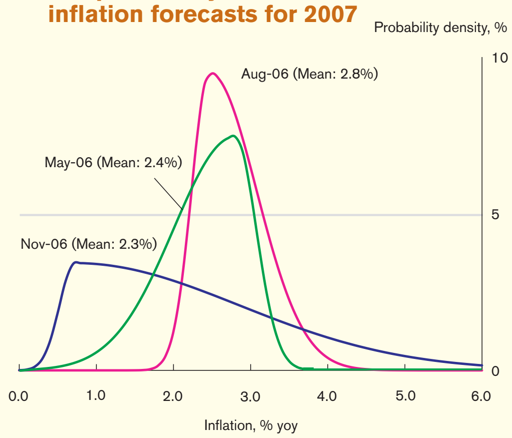
The mean of Consensus Forecasts for euro area growth in 2007 increased slightly to 1.9% from 1.8% in August this year (Chart 4.2). Although the recovery in the euro area is expected to sustain its momentum this year, growth in 2007 is likely to moderate, largely reflecting the scheduled value-added tax increases in Germany. The build-up of inventories in Q2 this year is likely to unwind, while some countries including Germany are tightening fiscal policy.

In Japan, the mean forecast for growth in 2007 was revised downwards to 2.0% from 2.2% in August, and the distribution has become less dispersed (Chart 4.3). Although growth in Japan is expected to ease as the recovery cycle matures, growth in the rest of Asia, particularly Mainland China, which is expected to remain a major locomotive of growth in the coming year, would continue to support demand for Japanese exports.

Underpinned by supportive economic fundamentals for high growth, the prospects for the Mainland economy continue to remain strong. High corporate profits and ample liquidity in the banking system suggest that investment has a fertile ground on which to accelerate. In addition, the government-led infrastructure investment in the bottleneck sectors continues to be buoyant. In the near term, it is highly probable the economy will continue to be pulled by robust growth in investment. As the government re-orients its investment towards health, education and a social safety net, domestic consumption is expected to hold up well. However, export growth is likely to decline, reflecting an anticipated slowdown in external demand, the continued appreciation of the renminbi, and structural reforms in the foreign trade regime that reduces export rebate taxes and increases taxes on energy and resource intensive exports. Import growth may not pick up strongly because of increased capacity for import substitution. Thus, the contribution to GDP growth from net exports could continue to remain large. On balance, it appears the contribution of domestic demand to growth may increase at a faster pace than that of net exports. Overall, economic growth in the near term is likely to ease from the current elevated level. The latest consensus forecasts indicate that the economy will move to a more sustainable path of just over nine percent growth in 2007.

Taking China and other emerging Asian economies as a group, the IMF expects its growth to moderate slightly to 8.3% in 2006, from its high level of 8.5% in 2005. Growth is projected to slow only marginally to 8.2% in 2007, which is significantly less than the projected slowdown in growth in the advanced economies. The continued robust growth projected for the region partly reflects a soft-landing scenario for the US, and continued strong growth in Mainland China. While growth in the NIEs is expected to moderate along with the anticipated slowing in the import demand of advanced economies, a modest rebound in activity is expected in the ASEAN economies as the effects of high oil prices and the previous monetary tightening recede.

Chart 4.4
US: probability distribution of inflation forecasts for 2007

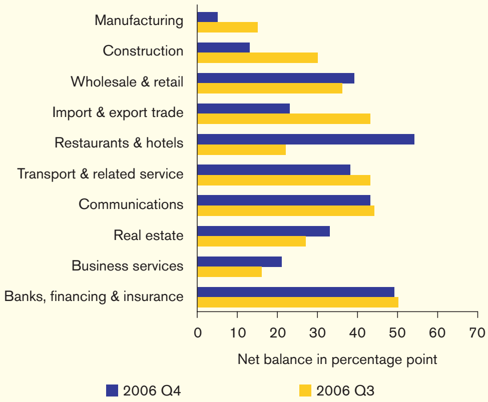


Source: Staff calculations based on Consensus Forecasts.

Global consumer price inflation is projected by the IMF to rise modestly to 3.8% in 2006 from 3.7% in 2005, reflecting mainly higher oil prices during the year. For the US, the mean of Consensus Forecasts for CPI inflation in 2007 has been revised down to 2.3% from a previous forecast of 2.8%, in response to the recent fall in oil prices and the slowdown in growth, but the distribution has become significantly more dispersed (Chart 4.4). Global inflation is expected to be well-contained, as the upward impetus from oil price increases recedes. The IMF forecasts global consumer price inflation to ease back slightly to 3.7% in 2007, while the Consensus Forecasts also project inflation to decline from the level in 2006.

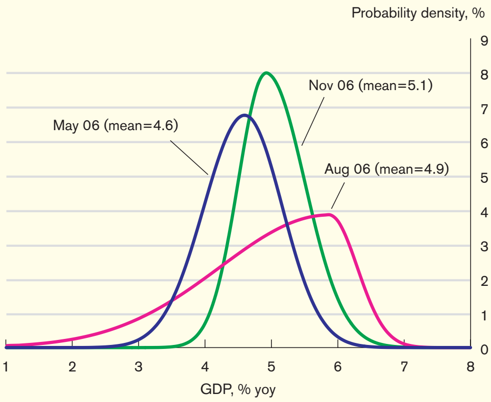
The outlook for global financial markets in 2007 is likely to be characterised by a continuation of the narrowing of interest differentials among major countries. Now that interest rates have reached a plateau in the US – a situation that may soon also hold true for the UK – the actions of central banks are more likely to be seen in continental Europe and Japan, at least in the earlier part of next year. The European Central Bank, which has increased its policy rate by a total of 125 basis points so far, has vowed to continue its current battle against inflation, while the Bank of Japan has barely participated in this tightening cycle. Major action is unlikely, however, given that inflation appears to be well contained globally. On the other hand, the possibility of the US Fed or the Bank of England starting to reduce interest rates in the near term also looks remote. Their economies are still some distance from the point in the economic cycle at which the risks of faltering growth surpass the risks of reigniting inflation. Against this backdrop, the exchange rates of major currencies are likely to be locked within tight trading ranges, until clearer signs emerge from the world economy.

Chart 4.5
Results of Business Tendency Survey: Views on expected changes in volume of output in 2006 Q3 and Q4



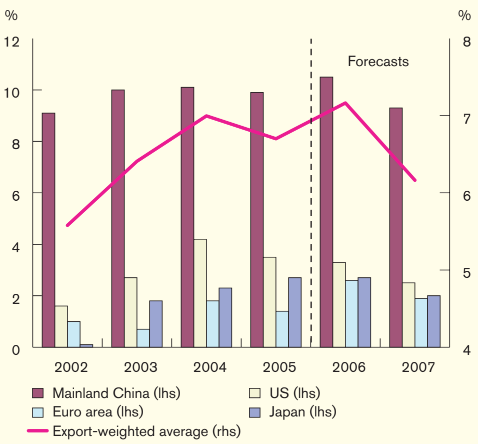
Note: Net balance refers to the difference between the percentage of respondents expecting a rise and those expecting a decline.
Source: C&SD.

Chart 4.6
Hong Kong: probability distribution of growth forecasts for 2007



Source: Staff calculations based on Consensus Forecasts.

Chart 4.7
Growth in Hong Kong's main trading partners



Sources: Staff calculations based on Consensus Forecasts.

4.2 Domestic outlook

The near-term economic prospect for Hong Kong remains favourable. The Quarterly Business Tendency Survey shows that all sectors covered expect the volume of business and output to increase in 2006 Q4 (Chart 4.5). For all sectors as a whole, the difference between the proportion of respondents expecting the business situation to be better and those expecting it to be worse decreased slightly from 32 percentage points in Q3 to 27 percentage points in Q4. This indicates that companies are still positive about their near-term business outlook, albeit in a more conservative manner. The Purchasing Managers' Index rose to 56.3 in November from an average of 52.4 in Q3, suggesting further expansion in business activity. Taken together, these indicators point to solid real GDP growth in Q4. Market consensus projects 5.5% year-on-year real GDP growth in Q4, while the Government's revised full-year growth forecast of 6.5% for 2006 implies 5.7% year-on-year real GDP growth in Q4.

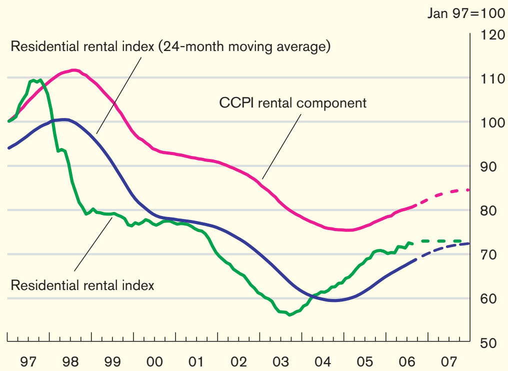
Looking ahead, growth momentum will likely continue in 2007, although the pace of expansion is expected to moderate. Market consensus calls for a slowdown to 5.1% real GDP growth in 2007 (Chart 4.6). The slowdown is expected to be broad-based across different expenditure components.

Export growth is projected to ease in 2007 amid global economic slowdown. In particular, the trade-weighted average output growth of Hong Kong's key trading partners is forecast to decrease by one percentage point in 2007 (Chart 4.7), in part reflecting the cumulative lagged effect of global monetary tightening and high oil prices, as well as a high base of comparison in 2006. The moderation is synchronised across major export markets. Among these, the outlook for the US is less certain. Specifically, the risk of a hard-landing brought about by abrupt adjustments to the US housing market still exists.

Future export growth will also depend on the outlook for the US dollar, to which the Hong Kong dollar is pegged under the currency board system. The US dollar is likely to weaken in the medium term against major currencies, as the halt in interest rate hikes and ongoing economic slowdown in the US no longer provide support to counteract the downward pressure of the sizable US current account deficit on the US dollar. Hong Kong dollar depreciation alongside the US dollar can help cushion the negative impact of GDP deceleration in major export markets.

Domestic demand is expected to record solid growth in 2007. Favourable labour market conditions will continue to sustain wage and income growth to support private consumption, while buoyant asset markets against the backdrop of low real interest rates and optimistic consumer confidence are likely to stimulate private consumption via the wealth and balance sheet effects. Low real interest rates, buoyant asset markets and rising corporate earnings will boost fixed asset investments as well. In respect of public expenditures, growth of public consumption is likely to be modest in 2007, depending largely on the outcome of the pay level survey (as civil servant compensations account for about 80% of public consumption expenditure), while public investments will probably remain subdued in 2007 given the lack of major public infrastructure and housing projects.

Chart 4.8
CCPI rental component and market rents

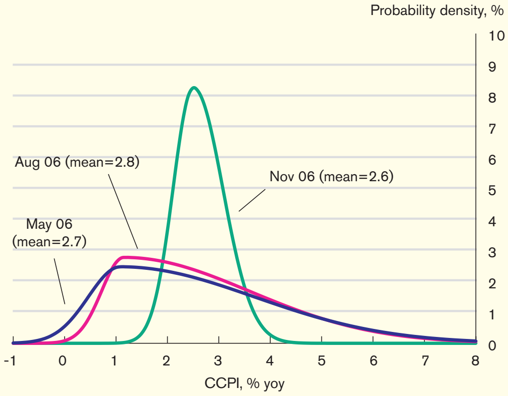


Sources: Rating & Valuation Department, C&SD and staff estimates.

Having risen steadily over the past few years, consumer price inflation is expected to increase moderately in 2007. The recent rise in the Composite CPI (CCPI) was in part due to a pass-through of increases in private housing rents into the CCPI rental component. Changes in the CCPI rental component, which includes both new and existing lettings, tend to lag behind movements in market rents owing to fixed-term rental contracts. Chart 4.8 shows that the rental component correlates closely with movements in the 24-month moving average of the private residential rental index (an indicator of market rents). Although the rate of increase in market rentals has moderated, the dotted lines suggest that, even if the rental index stabilises at its current level, the CCPI rental component will continue to adjust upwards. To gauge the impact of a continuous pass-through of market rents on the overall inflation, we assume that other CCPI components will stay at their levels in October 2006.

The CCPI rental component is then projected to rise by 4.4% in 2007, compared with an estimated increase of 5.1% in 2006.

Chart 4.9
Hong Kong: probability distribution of inflation forecasts for 2007



Source: Staff calculations based on Consensus Forecasts.

Nevertheless, the overall inflation in 2007 is expected to be higher than the above projection because market rents may continue to increase modestly and prices of other goods and services are expected to rise along with growth in aggregate demand. The continuous decline in the unemployment rate may put upward pressure on wages and thus consumer prices. In addition, the appreciation of the renminbi and the weakening of the US dollar could also feed into higher import prices. However, the expected moderation in growth should help contain the pace of the increase in inflation. The latest market consensus predicts consumer price inflation to average at 2.6% in 2007 (Chart 4.9).

4.3 Uncertainties and risks

Although the baseline scenario is for global economic expansion to remain intact into 2007, such a prospect is subject to a number of important risks. First, housing market weakness in the US may be more prolonged than some recent indicators suggest, and the impact on private consumption could become larger. Secondly, persistent underlying inflationary pressures in major economies could prompt further monetary tightening. Thirdly, financial markets may have under-priced some of these risks and volatility could be high should negative shocks materialise. Finally, medium-term risk factors persist, such as large external imbalances. In the meantime, the risks of overheating in Mainland China appear to have subsided. While the Democrats' control of the US Congress may re-ignite the risk of unfavourable trade measures against the Mainland, the likelihood of Sino-US trade disputes developing into a wholesale trade war remains small.

The impact of the US housing market slowdown on aggregate demand remains a major risk factor. Private consumption in the US has so far proved resilient to weaker housing market activity, but residential investment subtracted more than one percentage point from annualised third quarter GDP growth. Although the rise in new home sales could be interpreted as indications that the housing market might be stabilising, it is too early to conclude that the current US housing cycle is bottoming out, since it is still rather shallow when compared with the previous one in the early 1990s.

It is also uncertain whether and to what extent lower oil prices have supported demand. Because of the significant impact of oil price changes on real disposable income in the US, lower oil prices might have acted as a cushion to a housing market-led decline in private consumption. However, oil prices can still be volatile and the decline since August may prove temporary, particularly in light of the continued high level of geopolitical risks.

A larger than expected decline in the growth of US private consumption would reduce the growth of US imports from the rest of the world, and hence reduce the growth of Hong Kong's re-exports. We use the Oxford Economic Forecasting model and the HKMA small structural model to gauge the magnitude of the impact of such a shock. Assuming a two percentage points reduction in the growth of US private consumption, which is equal to two standard deviations of the rate of private consumption growth in the past 10 years, the US GDP growth would decline by 1.2 percentage points from its baseline. As a consequence, export growth in Mainland China would decline by about 2.2 percentage points and GDP growth by about 0.5 percentage points. In such a scenario, Hong Kong's export growth would decline by 1.2 percentage points and GDP growth would be reduced by close to 1 percentage point (Table 4.B). While this impact is material, its significance for monetary and financial stability in Hong Kong would be limited.

Table 4.B
Impact of US economic slowdown
Shock: US private consumption growth declines by 2 percentage points for one year

	Mainland	Hong Kong
GDP (%, yoy)	-0.5	-0.9
Consumption (%, yoy)	-0.1	-0.8
Investment (%, yoy)	-0.3	-0.8
Exports (%, yoy)	-2.2	-1.3
Imports (%, yoy)	-1.5	-1.2
Inflation (%, yoy)	-0.1	-0.1
Unemployment Rate (% of labour force)	0.1	0.2

Note : Figures are deviations in percentage points from the baseline.

Source: Staff estimates.

A second major risk facing the baseline outlook is the monetary policy stance in the major economies. Declining oil prices have lowered headline consumer price inflation, but inflation rates excluding energy have not changed markedly, reflecting persistently high levels of resource utilisation after a long period of steady economic growth. Rapidly increasing hourly compensation and unit labour costs in the US might indicate a growing risk of wage pressure, but it is too early to judge whether this is transitory or constitutes a trend. In addition, it also remains to be seen to what extent continued increases in productivity will help ease potential pressure on prices. Therefore, the Fed still needs to carefully balance the relative risks to growth and inflation in the period ahead, and a resumption of further monetary tightening cannot be ruled out.

A third major risk to our baseline outlook is a sudden rise in market volatility if macroeconomic news becomes unfavourable. Financial markets now expect the federal funds rate in the US to remain unchanged until the end of 2006 and have priced in the possibility of lower policy rates afterwards. Movements in bond yields and equity prices have reflected growing confidence in a "soft landing", and volatility in equity and bond markets is close to historical lows. Corporate credit spreads and emerging market sovereign spreads have also remained low. If the optimistic market expectations are not validated by macroeconomic developments, market price adjustments could be large and some firms may be subject to liquidity shocks.

Although volatility in the major markets could induce a reversal of capital flows to Asia, the financial system in Hong Kong should be strong enough to withstand temporary liquidity shocks, as demonstrated in the earlier parts of this report. This confidence not only reflects the strong balance sheet positions of the financial institutions, the corporate sector, the household sector, and the Government of Hong Kong, but also the observation that the financial markets in Hong Kong have been increasingly supported by closer ties with Mainland China, which may mitigate the negative impact brought about by a possible tightening in global liquidity. In this regard, it is comforting that short-term macroeconomic risks relating to the Mainland have abated. Nevertheless, it is important to remain vigilant and guard against the risks of a material deterioration in the trade relationship between the Mainland and the major economies, and a disorderly unwinding of the global imbalances.

Glossary of terms

Aggregate Balance
The sum of balances in the clearing accounts and reserve accounts maintained by commercial banks with the central bank. In Hong Kong, this refers to the sum of the balances in the clearing accounts maintained by the banks with the HKMA for settling interbank payments and payments between banks and the HKMA. The Aggregate Balance represents the level of interbank liquidity, and is a part of the Monetary Base.

Authorized Institution (AI)
An institution authorized under the Banking Ordinance to carry on the business of taking deposits. Hong Kong maintains a Three-tier Banking System, which comprises licensed banks, restricted licence banks (RLBs) and deposit-taking companies (DTCs).

Backing Assets/Backing Portfolio
Specific US dollar assets of the Exchange Fund that have been designated to provide backing to the Monetary Base.

Backing Ratio
The ratio between the Backing Assets and the Monetary Base. When the Currency Board Account was first set up, sufficient US dollar assets were transferred to the Currency Board Account to provide a 105% backing of the Monetary Base (the Backing Portfolio). Under a new arrangement approved by the Financial Secretary in January 2000, when the Backing Ratio reaches 112.5% (the upper trigger point), assets will be transferred out of the Backing Portfolio to the Investment Portfolio of the Exchange Fund assets to reduce the ratio to 110%. Conversely, should the ratio drop to 105% (the lower trigger point), assets will be injected from the Investment Portfolio to restore it to 107.5%. This arrangement enables a higher investment return on excess assets while ensuring sufficient liquid assets in the Backing Portfolio.

Best Lending Rate
A benchmark interest rate that banks use to price loans. In Hong Kong, the Best Lending Rate is often used as a base for quoting interest rates on mortgage loans.

Certificates of Indebtedness (CIs)
Certificates issued by the Financial Secretary under the Exchange Fund Ordinance, to be held by note-issuing banks as cover for the banknotes they issue.

Closer Economic Partnership Arrangement (CEPA)
A free trade agreement between the Government of the Hong Kong Special Administrative Region and the Central People's Government of the People's Republic of China (the Mainland) signed on 29 June 2003. CEPA aims to strengthen trade and investment co-operation between the Mainland and Hong Kong, through progressively reducing tariff and non-tariff barriers on trade in goods and services, and facilitating trade and investment activities.

Composite Consumer Price Index

The headline consumer price index (CPI) for Hong Kong. The Census and Statistics Department compiles three separate CPI series relating to households in different expenditure ranges. The CPI(A) relates to about 50% of households in the relatively low expenditure range; the CPI(B) relates to the next 30% of households in the medium expenditure range; and the CPI(C) relates to the next 10% of households in the relatively high expenditure range. The Composite CPI is compiled based on the aggregate expenditure pattern of all of the above households taken together.

Composite Interest Rate

The composite interest rate is a weighted average interest rate of all Hong Kong dollar interest bearing liabilities, which include deposits from customers, amounts due to banks, negotiable certificates of deposit and other debt instruments, and Hong Kong dollar non-interest bearing demand deposits on the books of banks. Data from retail banks, which account for about 90% of the total customers' deposits in the banking sector, are used in the calculation. It should be noted that the composite interest rate represents only average interest expenses. There are various other costs involved in the making of a loan, such as operating costs (e.g. staff and rental expenses), credit cost and hedging cost, which are not covered by the composite interest rate.

Consolidated Account

A government account, which gives an overview of the financial position and cash resources of the Government of the Hong Kong Special Administrative Region. It is prepared on a cash basis and comprises the General Revenue Account and the eight government funds: Capital Works Reserve Fund, Capital Investment Fund, Civil Service Pension Reserve Fund, Disaster Relief Fund, Innovation and Technology Fund, Land Fund, Loan Fund and Lotteries Fund.

Convertibility Undertaking

An undertaking by a central bank or currency board to convert domestic currency into foreign currency and vice versa at a fixed exchange rate. In Hong Kong, the HKMA operates Convertibility Undertakings on both the strong side and the weak side. Under the strong-side Convertibility Undertaking, the HKMA undertakes to buy US dollars from licensed banks at 7.75. Under the weak-side Convertibility Undertaking, the HKMA undertakes to sell US dollars at 7.85. Within the Convertibility Zone between 7.75 and 7.85, the HKMA may choose to conduct market operations consistent with Currency Board principles with the aim of promoting the smooth functioning of the money and foreign exchange markets.

Convertibility Zone

The Hong-Kong-dollar-US-dollar exchange rate band, defined by the levels of the strong- and weak-side Convertibility Undertakings, within which the HKMA may choose to conduct market operations consistent with Currency Board principles.

Delinquency Ratio in Negative Equity

Negative equity residential mortgage loans (RMLs) delinquent for more than three months as a percentage of total negative equity RMLs.

Discount Window

In Hong Kong, the facility through which banks can borrow Hong Kong dollar funds overnight from the HKMA through repurchase agreements using eligible securities as collateral.

Exchange Fund Bills and Notes

Debt instruments issued by the HKMA for the account of the Exchange Fund. Introduced in March 1990, the Exchange Fund Bills and Notes programme has expanded over the years, with a maturity profile ranging from three months to 10 years. These instruments are fully backed by the foreign reserves. The HKMA has undertaken that new Exchange Fund paper will only be issued when there is an inflow of funds, thus enabling the additional paper to be fully backed by the foreign reserves. Since 1 April 1999, interest payments on Exchange Fund paper have been allowed to expand the Monetary Base. Additional Exchange Fund paper is issued to absorb such interest payments. This is consistent with the Currency Board discipline since interest payments on Exchange Fund paper are backed by interest income on the US dollar assets backing the Monetary Base.

Liquidity Ratio

All authorized institutions in Hong Kong are required to meet a minimum monthly average liquidity ratio of 25%. This is calculated as the ratio of liquefiable assets (e.g. marketable debt securities and loans repayable within one month subject to their respective liquidity conversion factors) to qualifying liabilities (basically all liabilities due within one month). The method of calculation and its components are specified in the Fourth Schedule to the Banking Ordinance.

Monetary Base

A part of the monetary liabilities of a central bank. The monetary base is defined, at the minimum, as the sum of the currency in circulation (banknotes and coins) and the balance of the banking system held with the central bank (the reserve balance or the clearing balance). In Hong Kong, the Monetary Base comprises Certificates of Indebtedness (for backing the banknotes issued by the note-issuing banks), government-issued currency in circulation, the balance of the clearing accounts of banks kept with the HKMA, and Exchange Fund Bills and Notes.

Monetary Conditions Index (MCI)

An index that shows the overall monetary conditions of an economy. It is defined as a weighted sum of some measures of real interest rate and real effective exchange rates, with the weights reflecting their relative effects on aggregate demand or inflation.

Mortgage Delinquency Ratio

The ratio of total amount of loans overdue for more than three months to total outstanding loans. It is obtained from the Residential Mortgage Survey, which is a monthly survey covering 23 authorized institutions.

Mortgage Loans in Negative Equity

A mortgage loan with the outstanding loan amount exceeding the current market value of the mortgaged property.

Nominal and Real Effective Exchange Rate (NEER and REER)

An indicator of the overall exchange rate value of the Hong Kong dollar against a basket of currencies of Hong Kong's principal trading partners. The nominal effective exchange rate (NEER) is a weighted average of the exchange rates between Hong Kong and its principal trading partners. The real effective exchange rate (REER) is obtained by adjusting the NEER for relative movements in the seasonally-adjusted consumer price indices of those selected trading partners.

Operating Account

A government account, which comprises mainly the General Revenue Account, but excludes those revenue items which are treated as capital revenue and includes investment income of the Land Fund.

Qualified Domestic Institutional Investor (QDII)

A scheme set up to allow certain authorised financial institutions to invest in markets abroad. It is a transitional arrangement that provides limited opportunities for access to foreign markets when a country's capital account is not fully liberalised (such as in the case of Mainland China).

Rescheduled Loan Ratio

The ratio of total rescheduled loans to total outstanding loans.

Underemployment Rate

The number of underemployed persons, who are involuntarily working for less than 35 hours a week, as a proportion of the labour force.

Abbreviations

3m moving avg	Three-month Moving Average
3m-on-3m	Three-month-on-three-month
ASEAN	Association of Southeast Asian Nations
AIs	Authorized Institutions
bn	Billion
BLR	Best Lending Rate
BoE	Bank of England
BoJ	Bank of Japan
BoP	Balance of Payments
CCPI	Composite Consumer Price Index
C&SD	Census and Statistics Department
CPI	Consumer Price Index
CU	Convertibility Undertaking
ECB	European Central Bank
EU	European Union
FAI	Fixed Assets Investment
FDI	Foreign Direct Investment
Fed	Federal Reserve Board
FOMC	Federal Open Market Committee
FX	Foreign Exchange
GDP	Gross Domestic Product
HIBOR	Hong Kong Interbank Offered Rate
HICP	Harmonised Index of Consumer Prices
HKMA	Hong Kong Monetary Authority
HSI	Hang Seng Index
IMF	International Monetary Fund
IPOs	Initial Public Offerings
IT	Information Technology
lhs	Left-hand Scale
ISM	Institute for Supply Management
JGB	Japanese Government Bond
JPY	Japanese yen
LIBOR	London Interbank Offered Rate
MCI	Monetary Conditions Index

mn	Million
n.a.	Not available
NIEs	Newly Industrialised Economies
NPLs	Non-performing Loans
OECD	Organisation for Economic Co-operation and Development
p.a.	Per annum
PBoC	People's Bank of China
PCE	Private Consumption Expenditure
PD	Default Probability
PMI	Purchasing Managers' Index
PPP	Purchasing Power Parity
PPI	Producer Price Index
qoq	Quarter-on-quarter
QDII	Qualified Domestic Institutional Investors
REER	Real Effective Exchange Rate
rhs	Right-hand Scale
RMB	Renminbi
ROE	Return on Equity
RRR	Reserve Requirement Ratio
Sa	Seasonally Adjusted
SARS	Severe Acute Respiratory Syndrome
S&P 500	Standard and Poor's 500 Index
tn	Trillion
USD	US dollar
WTI	West Texas Intermediate
yoy	Year-on-year
ytd	Year to Date