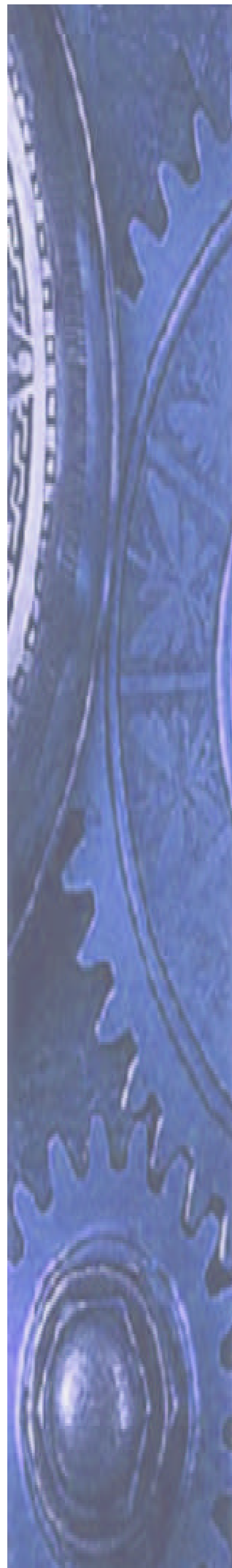


*Economics Department*

# *Quarterly Bulletin*

*Volume I, Issue 4  
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 *Monetary Authority of Singapore*



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# 1 International Environment

## 1.1 External Economic Developments

The external economic environment improved further in the third quarter of 1999. Growth in the US remained robust, while growth in the other major industrial countries improved. At the same time, growth in most of the East Asian economies also continued to pick up, led by a surge in exports.

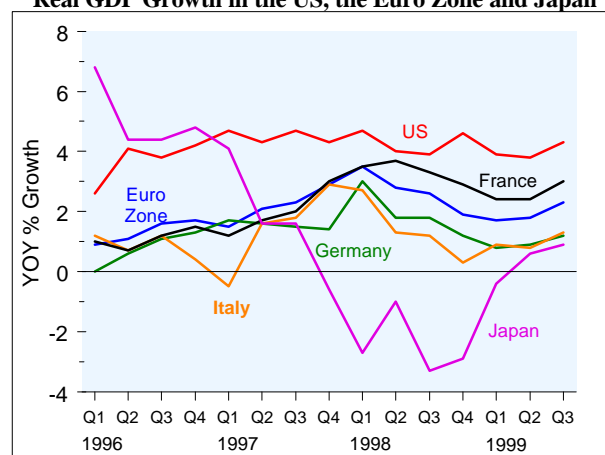
### US, Europe & Japan

The US economy sustained strong growth of 4.3% in Q3, after expanding by 3.8% in the previous quarter. (See Chart 1.1.) Growth was buoyed by robust domestic demand, as private consumption and private investment growth accelerated in Q3. Consumer prices rose by 2.6% in Sep, Oct and Nov, from 2.3% in Aug, due to higher oil prices. On the labour market front, employment costs and hourly wages remained tame although the unemployment rate fell to a new 29-year low of 4.1% in Nov. Nevertheless, a pick-up in core producer prices for both intermediate and finished goods suggests a possible resurgence of inflationary pressures going forward.

While the US economy remained robust, macroeconomic imbalances could put future growth prospects at risk. First, the US chalked up a current account deficit of almost US\$150 billion in H1, equivalent to 3.3% of GDP. Second, the personal savings rate fell to a low of 2.1% in Q3. Third, the stock market rallied to historic highs, with the NASDAQ index in particular reaching new peaks several times this year.

Euro zone GDP grew by 2.3% in Q3, from 1.8% in Q2. Real GDP growth in France and Germany accelerated to 3.0% and 1.3% in Q3, from 2.4% and 0.8% respectively in Q2. (See Chart 1.1.) Higher growth in France could be accounted for by comparatively buoyant domestic demand. Leading indicators in these two core economies point to a rapidly improving outlook in the quarters to

Chart 1.1  
Real GDP Growth in the US, the Euro Zone and Japan



come. In Germany and France, the closely-watched IFO and INSEE indices of business confidence have been rising since Mar 99. (See Chart 1.2.) In Italy, GDP grew by 1.2 in Q3, compared with 0.8% in Q2.

CPI inflation in the Euro zone accelerated in recent months, with the harmonised index of consumer prices rising by 1.6% in Nov, up from 1.4% in Oct and an average of 0.9% in H1. (See Chart 1.3.) Inflation remained below 2%, as upward pressures on energy prices were counter-balanced by relatively slower increases in food prices and declining prices for services. The European Central Bank, however, raised its main refinancing rate by 0.5% points to 3% on 4 Nov, in an attempt to pre-empt any inflationary pressures that could arise as growth in Europe strengthens.

The recovery of the Japanese economy is on track, with GDP registering growth of 0.9% in Q3, up from 0.6% in Q2 and -0.4% in Q1. On a seasonally adjusted QOQ basis, however, the economy contracted by 1%, as the fall in domestic demand more than offset the positive contribution from net exports. The government unveiled a ¥18 trillion Economic Rebirth Package on 11 Nov, which included ¥6.5 trillion of “real water” spending, to further bolster the economy. This was the ninth fiscal stimulus package since the asset bubble burst in the early 1990s. The government expected the ¥6.8 trillion of spending on social infrastructure projects to add 1.6% points to real GDP growth within one year. Consumer price inflation was flat in Q3, reflecting subdued household spending and weak import prices as a result of the strong yen.

## East Asia

In East Asia, a recovery is underway in the countries which were most affected by the Asian financial crisis. Expansionary fiscal policies complemented by accommodative monetary policies stimulated consumption, and to a lesser extent, private investment. Net exports also made a positive contribution to growth, supported by rising external demand, as well as the recovery in global electronics markets. (See Chart 1.4.)

The speed of economic recovery differed across countries, however. Korea led the pack with real GDP growth of 12% in Q3, up from 9.9% in Q2. Malaysia and Thailand registered sharply higher GDP growth of 8.1% and 7.7% respectively in Q3, compared with 4.1%

Chart 1.2  
Indices of Business Confidence

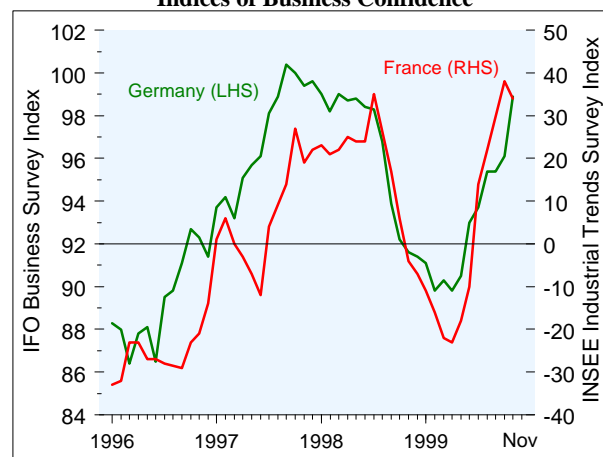


Chart 1.3  
CPI Inflation in the US, the Euro Zone and Japan

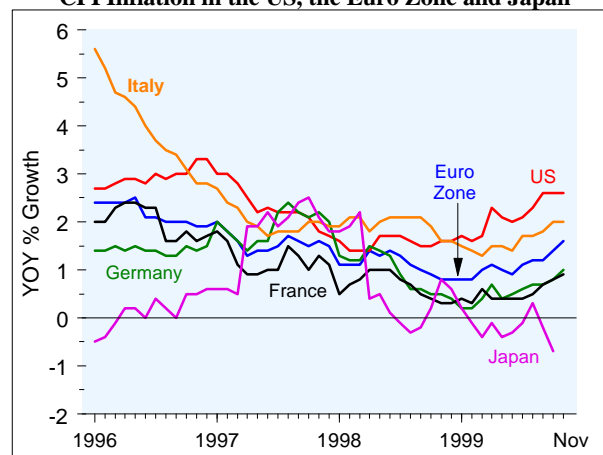
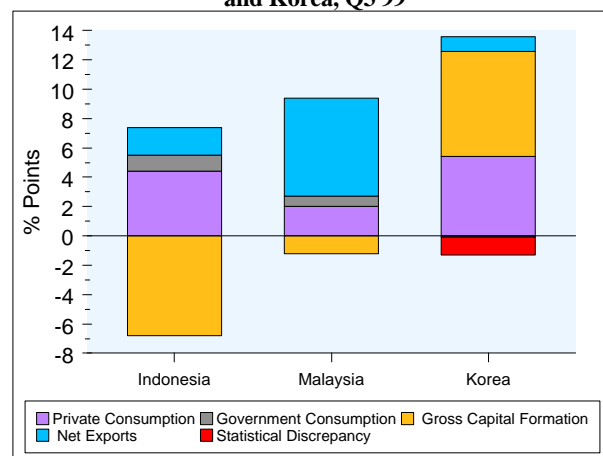


Chart 1.4  
Contribution to Growth in Indonesia, Malaysia and Korea, Q3 99



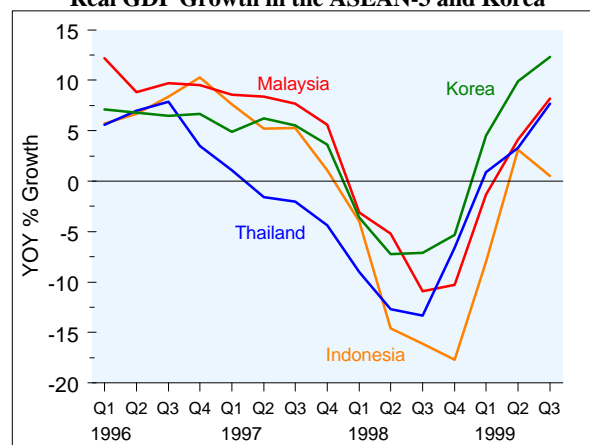
and 3.3% in Q2. The recovery in Indonesia, however, remained fragile, with GDP rising a mere 0.5% in Q3, after growing by 3.1% in Q2. (See Chart 1.5.)

Inflationary pressures in the region remained subdued. In Indonesia, prices continued to fall. The negative inflation trend in Thailand appeared to bottom out, with prices flat YOY in Nov. CPI inflation in Malaysia fell to 1.6% in Nov from 5.2% in Jan. In Korea, CPI inflation in Oct rose above 1%, for the first time since Jan, reflecting the spike in oil prices, a higher capacity utilisation rate and tighter labour market conditions. (See Chart 1.6.)

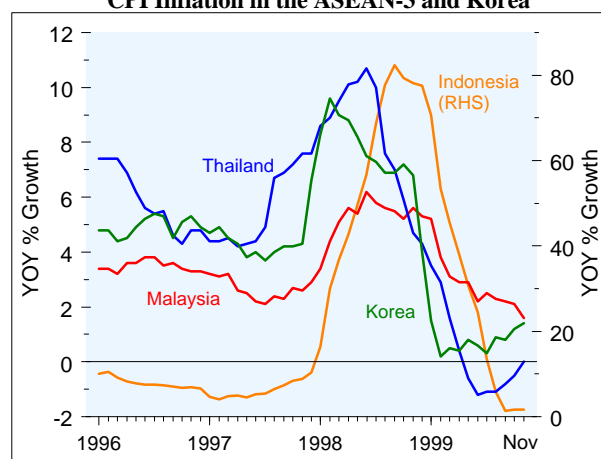
The Northeast Asian economies excluding Japan largely saw sustained or improved growth. (See Chart 1.7.) Real GDP in China expanded by 7% in Q3, following growth of 7.1% in Q2 and 8.3% in Q1. It remained on track to attain its growth target of 7% for the year. In addition to introducing a fiscal package in Aug, complemented by easing of monetary policy, the government implemented measures to revive consumer spending, including a 30% increase in civil servants' basic wages, allowances for laid-off workers, and social insurance for the unemployed. Retail sales picked up in Aug and Sep, although there were concerns as to whether this was sustainable, as state enterprise reform would lead to massive layoffs, which would then depress spending. China's impending accession to the World Trade Organisation (WTO) would likely result in short-term costs, although these would be outweighed by the benefits over the long-term. (See Box Item 1 for a more detailed discussion of the costs and benefits of China's WTO accession for China, and for the other East Asian economies.)

Real GDP growth in Hong Kong accelerated to 4.5% in Q3, from 1.1% in Q2 on the back of widening trade surpluses, strengthening private consumption and a modest increase in public investment. This better-than-expected performance prompted the government to raise its GDP growth forecast for 1999 to 1.8%, from 0.5% previously. The rebound in Q3 was not broad-based, as private investment remained weak. The seasonally adjusted unemployment rate was above 6% since Feb, the highest level in decades, while prime lending rates remained high at about 8.5%, crimping loan growth and investment. However, consumer and business confidence had been boosted by the rally in the stock market, the successful launch of the Tracker Fund, the deal with Walt Disney to build a theme park in the country, and China's accord with the US on WTO entry.

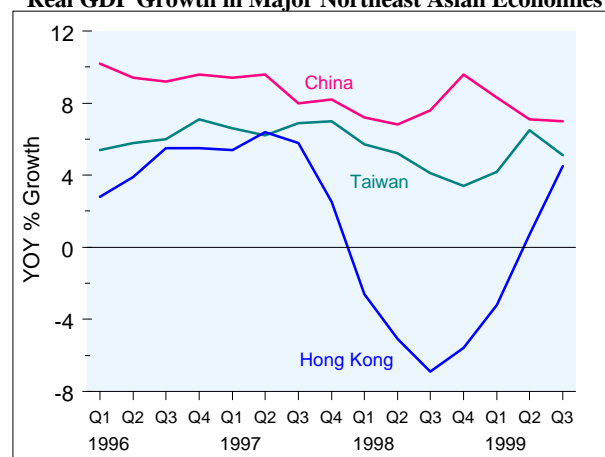
**Chart 1.5**  
**Real GDP Growth in the ASEAN-3 and Korea**



**Chart 1.6**  
**CPI Inflation in the ASEAN-3 and Korea**



**Chart 1.7**  
**Real GDP Growth in Major Northeast Asian Economies**



### Box Item 1: China's WTO Accession

China signed a trade agreement with the US on 15 Nov 99, removing a major obstacle for China's accession to the WTO. Under the trade pact with the US, China agreed to reduce the overall average tariff rate to 17% from the current 22%, and also bind tariff rates (i.e., China will accept a legal commitment not to raise tariffs in the future above the bound level).

China's expected accession to the WTO will lead to a reduction in tariff rates and raise its import bill, but this will be offset by a rise in foreign direct investment arising from the aggressive liberalisation of the telecommunications, internet, insurance, and hotel sectors. For China, WTO accession is likely to result in short-term dislocation costs, and lead to a rise in corporate bankruptcies and unemployment. In the long-term, WTO entry will benefit China in terms of greater market access for its exports and efficiency gains from the reallocation of factor inputs to competitive sectors. In particular, WTO entry will speed up the reform process for state-owned enterprises and the financial sector. Other benefits include unconditional multilateral Most Favoured Nation trade treatment, access to foreign resources, wider consumer choice, and an enhanced credit standing from anchoring its policy of trade liberalisation in a framework of international laws.

East Asian economies stand to benefit considerably from greater access to China's market. Although China is a relatively more important export market for Hong Kong, Taiwan and Korea than for most of the East Asian economies, exports to China from other East Asian countries have been growing rapidly. Table 1A highlights the sectors in the East Asian countries that are likely to benefit from China's WTO accession.

In particular, China's Information Technology Agreement, which would eliminate tariffs on semiconductors, computers, telecommunications and other IT equipment by 2005, would benefit virtually all the East Asian economies, as exports of electronics and IT equipment count amongst their top exports.

The liberalisation of the financial services market will bring relatively greater gains to countries with well-developed financial sectors. China is also one of the largest Asian recipients of FDI from several Asian countries. However, much of this investment is concentrated in the manufacturing sector. As China eases its restrictions on majority foreign ownership in the telecommunications, financial, and entertainment industries, FDI inflows to its services sector will increase.

**Table 1A**  
**Likely Beneficiaries of China's WTO Accession**

Country	Exports to China (% of Total)	Sectors
Hong Kong	29.7*	Financial services, telecommunications, film distribution services
Taiwan	23.2**	Electronics
South Korea	9.0	Automobiles, electronics, agriculture, fish
Japan	5.2	Telecommunications, automobiles, financial services, comics
Indonesia	3.8	Wood, chemical products
Singapore	3.7	Electronics, financial services, telecommunications
Thailand	3.2	Electronics, rice, automobiles, fruits, fish (including shrimp)
Malaysia	2.7	Palm oil, wood, electronics, telecommunications
Philippines	1.2	Electronics, telecommunications

\* Domestic exports only

\*\* Includes exports to Hong Kong

The Taiwanese economy expanded by a slower 5.1% in Q3, compared with 6.5% in Q2, as private consumption had been affected by the recent earthquake. The Directorate of Budget, Accounting and Statistics trimmed its official 1999 growth forecast by 0.2% points to 5.5%, due to the impact of the earthquake. Damages were estimated at NT\$400 billion.

The major Northeast Asian countries continued to experience deflation. (See Chart 1.8.) China's consumer price index appeared to be bottoming out. Upward pressures on prices would likely increase in the future on the back of an expected turnaround in consumer demand, a weakening dollar, higher oil prices, and the rise in housing rents due to a reduction of government subsidies. Consumer prices continued to fall in Hong Kong, although they appeared to have bottomed out mainly due to the expiry of a property tax rebate and the rise in import prices, including oil. In Taiwan, CPI inflation was positive between Aug and Oct, but fell back into negative territory in Nov, as food and housing prices contracted.

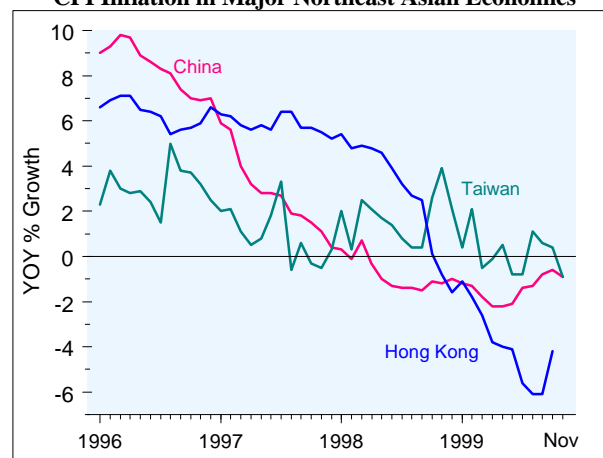
### Outlook for 2000

The outlook for global and regional growth in the year 2000 has improved from a year ago. Higher growth in Europe and Japan, and a strong US economy are expected to underpin global growth next year. The OECD has forecast real GDP growth of 2.8% and 1.4% for the Euro zone and Japan respectively, while growth in the US is projected to slow to 3.1%.

In the crisis countries, economic prospects differ. The Bank of Korea has projected that growth next year will slow to a more sustainable rate of 7.2%, after its spectacular rebound this year. Countries that experienced a weaker turnaround this year are expecting growth to accelerate next year. The Indonesian, Thai and Malaysian authorities are forecasting growth in 2000 to be 2.0%, 4.4% and 5.0% respectively.

Growth in the Northeast Asian region is also expected to be higher next year. In China, the Chinese Academy of Social Sciences has predicted real GDP growth next year of 7.5-8.0%. The IMF has forecast a rise in real GDP growth in Hong Kong to 3.5% in 2000, as the economy is beginning to show clear signs of recovery. Taiwan has also recently raised its official forecast for growth in 2000 to 6.04%.

**Chart 1.8**  
**CPI Inflation in Major Northeast Asian Economies**





## 1.2 International Financial Markets

Reflecting a more sanguine world economic outlook, international financial markets continued their recovery from the lows and disruptions of 1998. In particular, the increased likelihood of continued low-inflation growth in the US and more positive economic outlook for the Euro-zone, Japan, and the rest of East Asia underpinned a general strengthening of currencies and equity markets. Markets took monetary policy tightening in stride, with bond yields in the US and Europe rising slightly, while spreads between emerging market sovereigns and US Treasuries continued to fall in line with a return of investor confidence.

### Currencies

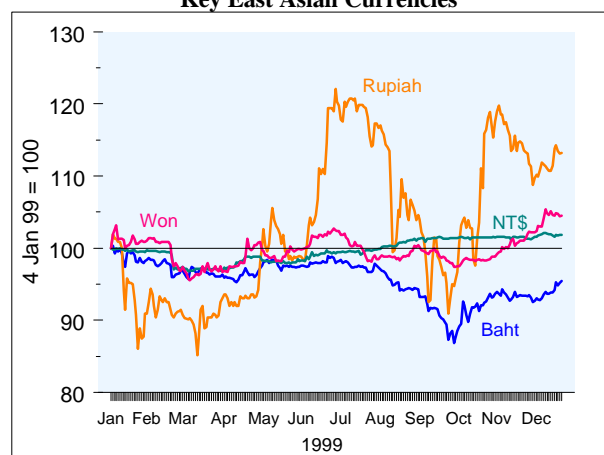
In the foreign exchange market, the yen appreciated sharply against the US dollar, as confidence in the sustainability of the Japanese recovery increased and substantial foreign investment flowed into the equity market. The Japanese monetary authorities intervened a number of times in the foreign exchange market, most notably in mid-Sep and in late Nov, to stem the yen's rise. Policymakers in other developed countries also appeared to be concerned with the rapid rise of the yen. On 25 Sep, Finance Ministers of the G7 countries pledged to "monitor developments in exchange markets and cooperate as appropriate". Notwithstanding the interventions by the Japanese monetary authorities, and the prospect of a joint intervention by the developed countries, the yen strengthened by about 6.4% from 1 Sep to 21 Dec. (See Chart 1.9.)

The major Northeast Asian currencies came under strong pressure to appreciate in the last three months, while several Southeast Asian currencies remained weak due to problems in structural reforms and political uncertainties. Between 1 Sep and 21 Dec, the NT\$ rose slightly by 0.5% against the US dollar. (See Chart 1.10.) Meanwhile, the Won appreciated by about 4% from 1 Sep, with the dramatic economic turnaround in Korea providing the basis for a surge in direct and portfolio investments. The Won's appreciation was capped by interventions by the Bank of Korea.

Chart 1.9  
Yen and Euro against the US dollar



Chart 1.10  
Key East Asian Currencies





Movements in major Southeast Asian currencies were relatively more volatile than their Northeast Asian counterparts. The Indonesian rupiah rose to as high as 6700Rup/US\$ in late Oct, in response to the smooth political transition after the Presidential elections, but fell back to about 7500Rup/US\$ in late Nov on concerns over a banking scandal and continuing fears of political unrest. The baht fell to as low as 41.7Bht/US\$ in Sep, in part because traders were concerned over the pace of bank restructuring in Thailand, but recovered later as these concerns subsided. As of 21 Dec, the Thai baht traded at about 37.9Bht/US\$, an appreciation of 2.3% from 1 Sep.

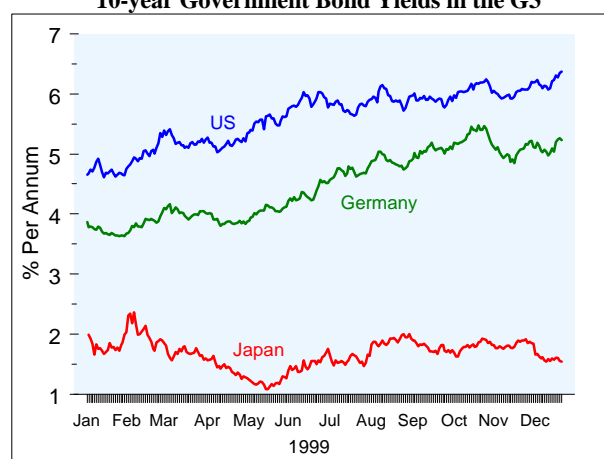
## Interest Rates

US bond yields moved higher in response to stronger economic growth and tighter monetary policy in the US. The US Federal Reserve raised the federal funds target rate by 0.25% on 16 Nov, in an attempt to restrain buoyant private sector demand and ameliorate tight labour market conditions, but left interest rates unchanged on 21 Dec. In total, the Federal Reserve has raised interest rates by 0.75% this year, reversing all of the rate cuts last year following the panic in capital markets that was triggered by the Russian default. As a result, bond yields rose, with yields on ten-year treasuries reaching a high of about 6.4% on 21 Dec. (See Chart 1.11.) Compared to the low in Oct last year, yields on ten-year Treasuries have risen by about 200 basis points.

German government bond yields also rose marginally, as the ECB raised its main refinancing rate by 0.50% on 5 Nov, reversing its 0.50% rate cut in Apr. The hike by the ECB was well anticipated by the bond market. From 1 Sep to 21 Dec, ten-year bond yields rose by about 30 basis points.

In Japan, the government bond market was plagued by concerns over the impending large increase in the supply of government securities, and uncertain demand next year from the Trust Fund Bureau. Nevertheless, bond yields in late-Dec were lower against the levels on 1 Sep, supported by a number of positive measures on the monetary policy front. The Bank of Japan (BOJ) announced that it would supply liquidity to the market, through direct purchases of government bills maturing in less than 1-year and repurchase agreements involving 2-

**Chart 1.11**  
**10-year Government Bond Yields in the G3**



year or longer-term government securities with the Trust Fund Bureau. In addition, the BOJ also announced that it was considering other policy instruments to supply liquidity to the market.

The yield differential between emerging market sovereign bonds and comparable US government securities, as measured by JP Morgan's EMBI+ index, narrowed, in line with the more favourable economic outlook in emerging economies. Notwithstanding the recent narrowing of spreads, yield spreads between emerging market sovereign bonds and US government securities were still about double pre-crisis levels. (See Chart 1.12.) Asian countries benefited from renewed optimism over economic recovery with the yield differential between Asian sovereign issues and comparable US government bonds falling to pre-July 1998 levels.

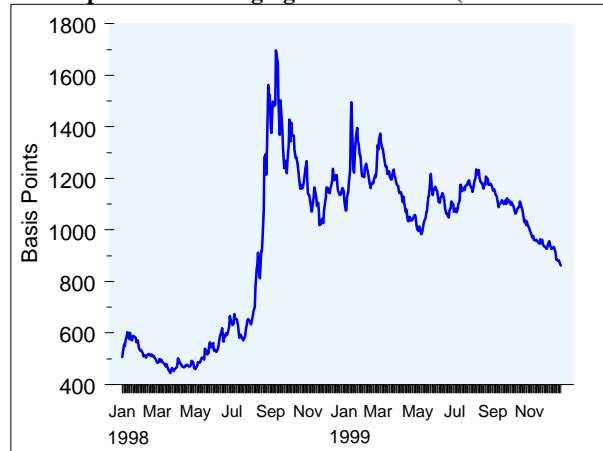
## Equities

Prospects for growth, especially in the technology sector, and the likelihood of inflation in the US were the main influences on developed countries' equity markets in the last quarter. In the US, the Dow Jones Industrial Index declined through mid-October before more benign inflation expectations led the market to recover. Between 1 Sep and 21 Dec, the Dow Jones Industrial Index rose by 2.4%. (See Chart 1.13.) Meanwhile, technology stocks sizzled with the technology-heavy NASDAQ composite index reaching record highs in 15 out of 20 sessions in Nov and rising about 42% since 1 Sep. Good corporate results for technology companies and expectations that the Fed would not increase interest rates until at least Feb next year were the main impetus for the rise – investors appear to bet that historically high valuations are justified given prospects for technology companies in the new internet-age economy.

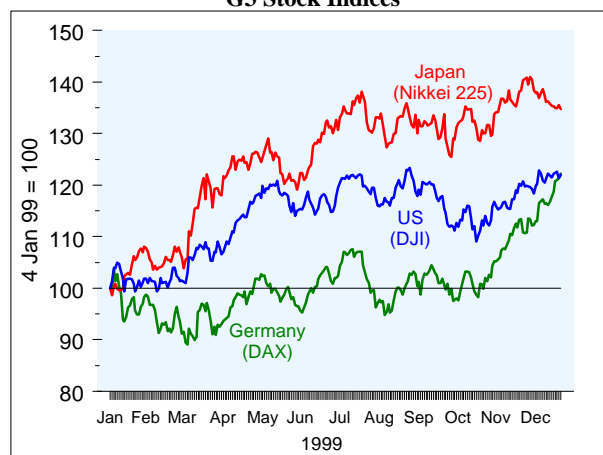
European stock markets also rose sharply with gains coming on the back of strong corporate results, merger and acquisition activities, and more optimism over growth prospects. The French CAC and German DAX indices were among the best performers rising 20.7% and 19.3% respectively between 1 Sep and 21 Dec.

In Japan, continued optimism over economic recovery and purchases by foreign investors pushed the Nikkei

**Chart 1.12**  
Yield Spreads on Emerging Market Bonds (EMBI+ Index)



**Chart 1.13**  
G3 Stock Indices



close to 19000 before concerns over a strong yen led to a slight decline. Net purchases by foreign investors totalled ¥761 billion in Nov, up from ¥454 billion in Sep. As with the US, the rally in Nov was led by shares in technology and telecommunications companies.

East Asian equity markets were less affected by the exuberance of the US stock market, with movements in equity prices driven largely by domestic factors. Stocks in Hong Kong, Indonesia, and South Korea were among the best performers in the Sep-Dec 99 period while the broad stock market indicators in Malaysia, Taiwan, and Thailand continued their retreat from highs in July. Shares rose sharply in Hong Kong, with the Hang Seng Index (HSI) rising by about 20%, on optimism over the Disney deal, the overwhelming response to the launch of the Tracker Fund, and the WTO deal between China and the US. In South Korea, equity markets recovered as jitters over the Daewoo debt crisis subsided, latest data confirmed a strong economic recovery, and the upgrade of Korea's sovereign rating by S&P to triple-B. (See Chart 1.14.) The Indonesian stock market experienced a particularly volatile quarter although the Jakarta Composite Index (JCI) ended the period about 14.9% higher as conflicting news over the Presidential elections, regionalism, and further investigations of high-ranking ministers swayed investor confidence. (See Chart 1.15.)

Equity prices in Thailand were held back by continuing concerns over banking sector problems and slow progress in restructuring, although it still managed a small rise for the period. The Stock Exchange of Thailand Index (SET) rose by 3.4% from 1 Sep to 21 Dec. Meanwhile, the Kuala Lumpur Composite Index (KLCI) rose by 5.1%, while the Taiwan Weighted Index (TWI) fell by 4.1% from 1 Sep.

**Chart 1.14**  
**NIE-3 Stock Market Indices**



**Chart 1.15**  
**ASEAN Stock Market Indices**



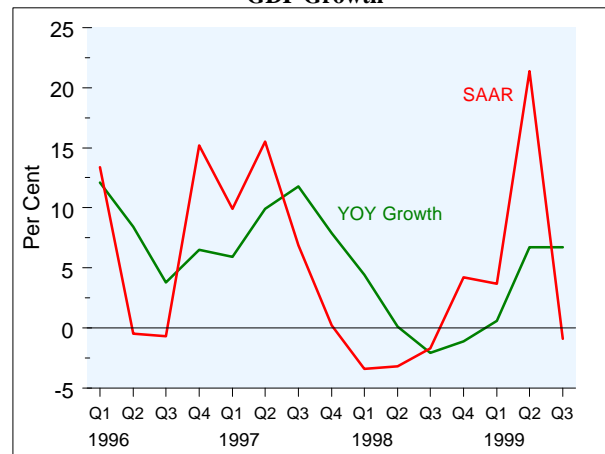
*External Economies Division  
Financial & Special Studies Division*

## 2 Demand and Output

The Singapore economy continued to expand by a robust rate of 6.7% in Q3 99, following growth of 6.7% in Q2 and 0.6% in Q1. This implies growth of 4.7% in the first three quarters of the year. On a seasonally adjusted quarter-on-quarter annualised (SAAR) basis, however, GDP dipped slightly in Q3, compared with a surge of over 20% in the previous quarter. (See Chart 2.1.)

Given the favourable economic developments, the official forecast for GDP growth this year has been narrowed from 4-5% to around 5%. Next year, in anticipation of a continued healthy external environment, GDP growth is projected to come in at 4.5-6.5%.

**Chart 2.1**  
GDP Growth



### 2.1 Aggregate Demand

Reflecting the steady recovery in the economy, aggregate demand increased by 9.4% in Q3 99, compared to 6.8% in Q2 99. Growth of external demand, which comprises about 70% of overall demand, was marginally higher than in the previous quarter, at 7.9%, while growth of domestic demand more than doubled to 13%. (See Chart 2.2.)

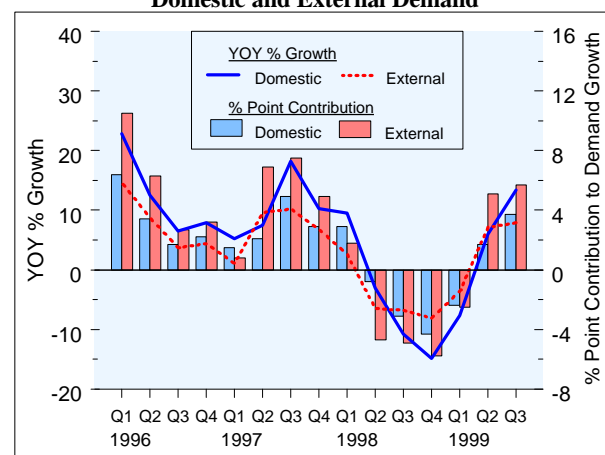
#### External Demand

External demand saw another quarter of healthy growth in Q3 99, on the back of a stable increase in goods exports and a double-digit expansion in services exports. Goods exports recorded a rise of 4.7%, following a 5.1% increase in Q2, while services exports expanded by 31% in Q3.

#### Goods Exports

The slight moderation in the growth rate of goods exports from Q2 99 to Q3 99 was entirely due to a sharp contraction in oil domestic exports. This reflected cutbacks in oil production as prices of petroleum products continued to be outrun by prices of crude oil and an oversupply of petroleum products in the region.

**Chart 2.2**  
Domestic and External Demand



In contrast, non-oil domestic exports (NODX) and re-exports registered higher growth of 12% and 1.9% respectively in Q3 99. The higher growth in NODX was due to stronger electronics exports growth, reflecting the recovery in the global electronics industry. Non-oil, non-electronics exports recorded a second consecutive quarter of double-digit increase of 37% in Q3 99. In Oct-Nov 99, NODX rose further, by 19%, with electronics and non-oil, non-electronics exports rising by 15% and 69% respectively. (See Chart 2.3.)

NODX growth to the NIE-3 countries registered the strongest growth in Q3 99, posting increases of over 40% in the Korea and Taiwan markets. NODX to the ASEAN-3 countries and Japan also saw robust growth of 14% and 29% respectively. NODX to the US, Singapore's largest single market, posted a higher increase of 6.2% in Q3 99, from 2.5% in Q2 99, while growth of NODX to the EU moderated from 10% to 8.1% over the same period. (See Chart 2.4.)

### Services Exports

In real terms, services exports<sup>1</sup> turned in another quarter of exceptional growth in Q3 99, growing by 31% as exports of 'Other Services' continued to soar. Although significantly lower than in Q2 99, exports of 'Other Services', which include passenger fares, financial, communication, merchanting, professional and business services, posted a strong 51% rise in Q3 99. Exports of travel services rose by 16% in Q3 99, from 10% in H1 99, as visitor arrivals, especially those from the NIE-3 and industrialised countries increased. Receipts from transportation services, another major component of services exports, grew by a moderate 5.4%, compared to 3.4% in Q2 99. (See Chart 2.5.)

Given the bright outlook for the global electronics industry and Singapore's major export markets, exports of goods and services should continue to perform well in the quarters ahead. In particular, NODX is forecast to rise at double-digit rates for the remainder of this year and the beginning of 2000. Among the firms surveyed by the Economic Development Board (EDB), a net balance of 13% received higher export orders in Q3 99, and a net balance of 19% expected higher export orders in Q4. Retained imports, a forward indicator of production and hence exports, continued on an uptrend in Nov 99.

<sup>1</sup> To derive real services exports, nominal services exports from the balance of payments was deflated using a four-quarter moving average underlying CPI. The underlying CPI excludes private road transport and accommodation from overall CPI.

Chart 2.3  
Real Goods Exports

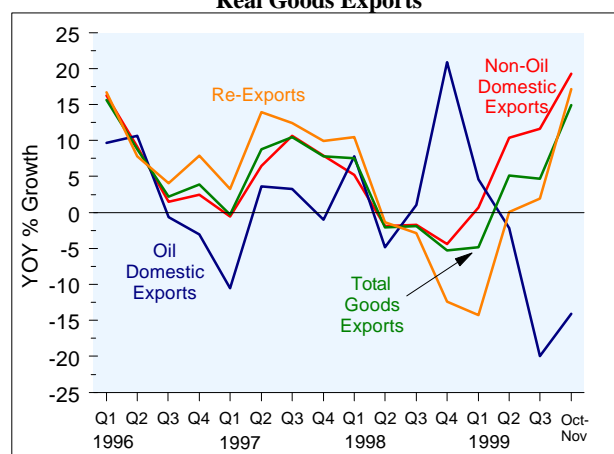
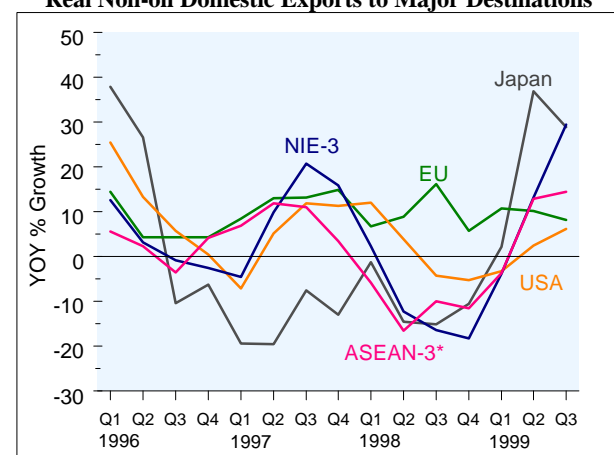
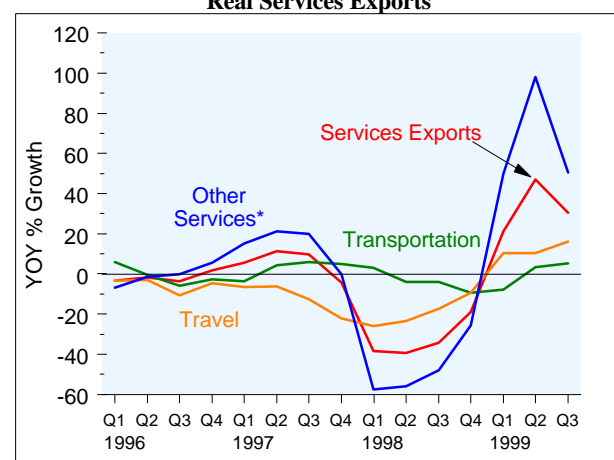


Chart 2.4  
Real Non-oil Domestic Exports to Major Destinations



\* ASEAN-3 comprises Malaysia, Thailand and the Philippines

Chart 2.5  
Real Services Exports



\* Other services exports include passenger fares, financial, communication, merchanting, professional and business services

## Domestic Demand

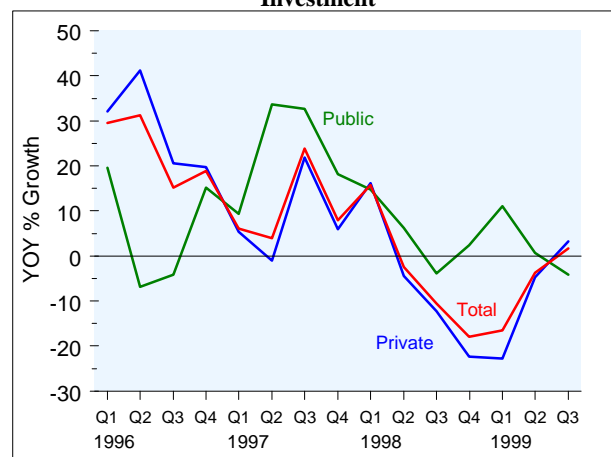
Domestic demand returned to double-digit growth in the third quarter, on the back of stronger consumer and investment demand.

Investment rose for the first time in Q3 99, following five consecutive quarters of contraction. (See Chart 2.6.) While construction investment, specifically those in the residential and non-residential sectors, continued to shrink, it was more than offset by accelerating machinery and transport equipment investment. Partly due to the upturn in the economy, and partly due to Y2K concerns, inventory accumulated further in Q3 99, to 6.6% of GDP, from 4.0% in the preceding quarter.

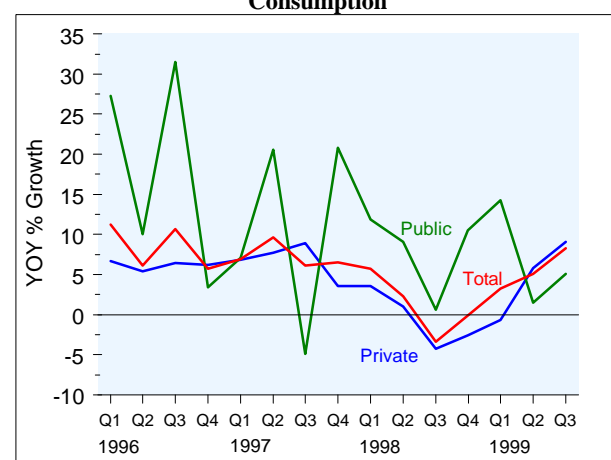
As a result of higher private and public consumption expenditure, overall consumption grew by 8.3% in Q3 99. Private consumption increased from 5.8% in Q2 99 to 9.1% in Q3 99, while public consumption rose from 1.5% to 5.1% over the period. (See Chart 2.7.)

With the forward-looking Straits Times Consumer Confidence Index at over 300 points in Sep 99, compared to 237 in Mar 99 and 100 in Dec 98, private consumption spending should remain robust in the next few quarters. Overall investment is likely to pick up further as business sentiment improves, albeit at a moderate rate due to continued weakness in construction investment. The latest survey by the Department of Statistics (DOS) showed that firms generally anticipated better prospects for the period Oct 1999 – Mar 2000. The improved business sentiment was also evident in Dun & Bradstreet's Optimism Index, which recently saw the sub-indices for net profit and new orders turning positive, and the latest Singapore Chinese Chamber of Commerce & Industry (SCCI)'s Business Confidence Survey, which found that the percentage of companies expecting business to recover increased to 80%, from 32% in January.

**Chart 2.6  
Investment**



**Chart 2.7  
Consumption**





## 2.2 Domestic Output

The sustained strength of the economy was underpinned by the strong performance of the manufacturing sector, and healthy growth in the commerce and transport & communications sectors. This offset the continued double-digit decline in the construction sector, and lower growth in the financial services sector. (See Chart 2.8.)

### Manufacturing

Growth in the manufacturing sector strengthened to 17% in Q3 99, following expansions of 6.7% and 15% in Q1 and Q2 respectively. Driven by strong growth in the electronics and chemicals industries, manufacturing output rose further in Oct and Nov, by 23% and 18% respectively, bringing overall growth to 14% for the first eleven months of the year. (See Chart 2.9.)

Output of electronics products rose by 27% in Q3 99 and 29% in Oct-Nov, compared with growth of 24% in Q2 and 14% in Q1. Electronics production was boosted by stellar growth in the telecommunications equipment industry due to robust regional demand for cellular telecommunications products. The semiconductor industry was another pillar of strength, with the recovery in the global semiconductor industry well underway and local manufacturers ramping up production to meet strong demand. Despite fears of a Y2K-related corporate IT spending freeze, the performance of the computer & computer peripherals industries also improved in line with the pick-up in the global electronics cycle. International Data Corporation (IDC) reported a 41% surge in Asia-Pacific unit shipments of personal computers (PCs) in Q3, compared with a 25% increase in global PC shipments. (See Chart 2.10.)

Electronics production will be supported by major capacity expansion<sup>2</sup> in the semiconductor industry next year, as well as the pick up in global and regional demand. PC shipments in the Asia-Pacific region are expected to remain healthy, driven by the recovery in the regional economies, the spread in Internet usage and

<sup>2</sup> Chartered Silicon Partners, a foundry, is scheduled to come on stream in H2 2000. SSMC (the Phillips-TSMC-EDB venture) is scheduled to come onstream in the latter half of next year as well.

Chart 2.8  
GDP Growth

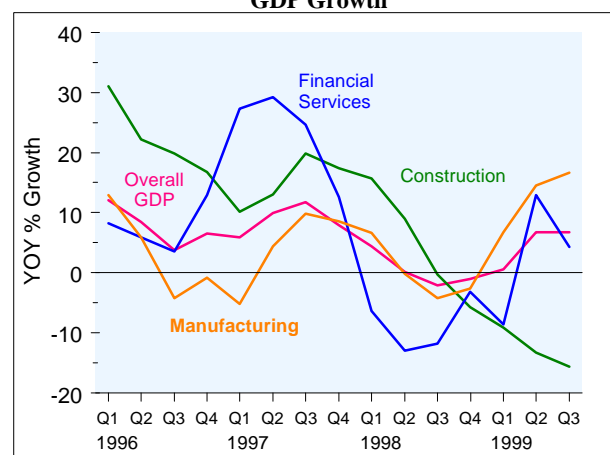


Chart 2.9  
Industrial Production

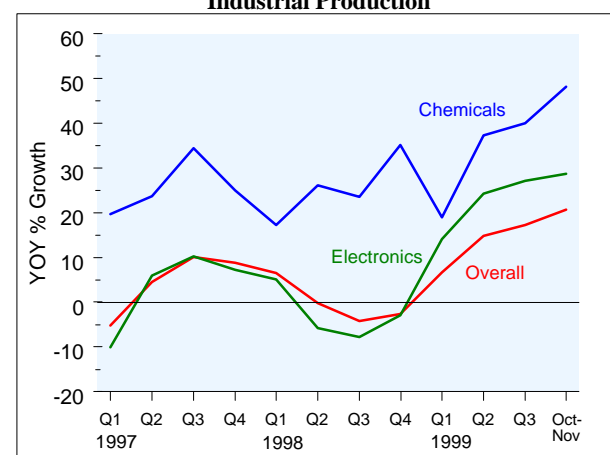
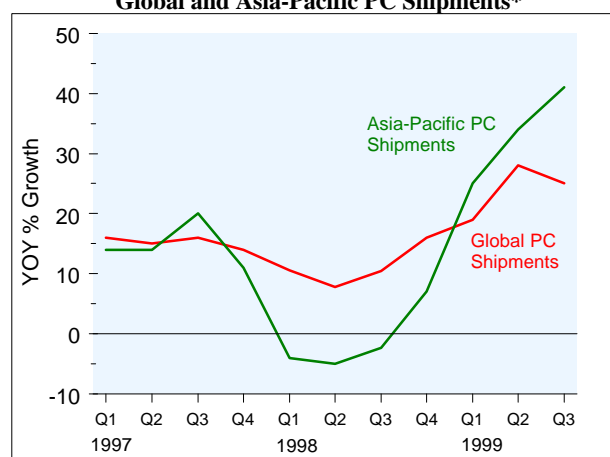


Chart 2.10  
Global and Asia-Pacific PC Shipments\*



\* Source: IDC

the trend towards "nearly free"<sup>3</sup> PCs. IDC has forecast a healthy 17% rise in global PC shipments for Q4, bringing the full-year shipment growth to 23% for 1999. For the year 2000, global unit PC shipments are expected to rise by 18%, in line with a pick-up in commercial spending and sustained consumer demand. Nevertheless, overall electronics growth may be dampened by weakness in the disk drive and printed circuit board industries, with major players like Western Digital, Seagate and Compaq announcing staff layoffs as they shift all or part of their production out of Singapore.<sup>4</sup>

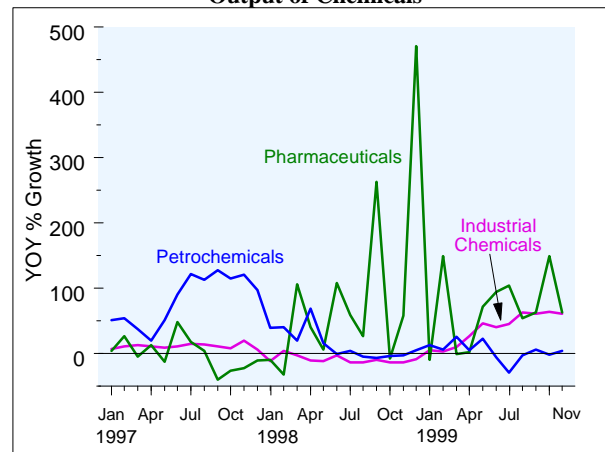
Output of non-electronics products rose by 10% in Q3 99 and 14% in Oct-Nov, following the 8.0% increase in Q2. As in previous months, the chemicals industry led growth in the non-electronics industries, expanding by 40% in Q3 99 and by 48% in Oct-Nov 99. This was driven mainly by stellar growth in pharmaceutical and industrial chemical output, reflecting the ramp-up of pharmaceutical production as well as new industrial chemical plants which started production runs earlier in the year. In contrast, the petrochemical industry contracted by 9.0% in Q3 99, which reflected in part the maintenance shutdown of the Petrochemical Corporation of Singapore's (PCS) 450,000 tpa cracker and several related downstream plants throughout most of July. (See Chart 2.11.)

The other non-electronics industries also turned in lacklustre performances. In particular, the petroleum refining industry fell by 13% in Q3 and 15% in Oct-Nov, compared with a contraction of 7.1% in Q2. This was due to sharp production cutbacks by local refiners as margins were squeezed by soaring crude oil prices. The transport equipment industry also recorded a contraction of 9.1% in Q3 and a marginal increase of 0.4% in Oct-Nov, as growth was dampened by weakness in the marine transport equipment industry. (See Chart 2.12.)

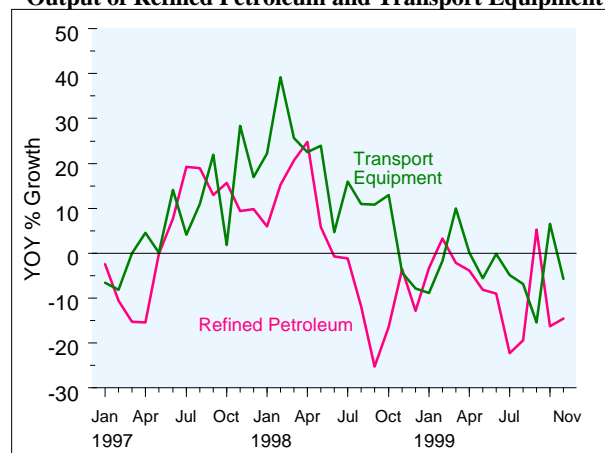
<sup>3</sup> "Nearly free" PCs are PCs that are offered at extremely low prices by Internet service providers, bundled together with internet service subscriptions.

<sup>4</sup> Western Digital is shifting out all of its disk drive production to Malaysia by Jan 2000, while Compaq announced that it would be laying off some 1,600 staff in 2 phases by Mar next year. In Aug 99, Seagate also announced that it would be laying off around 1,600 which could involve its AMK disk drive plant, Senoko PCBA plant, Tuas disk media plant, and customer services operations in New Tech Park. So far, it has confirmed that it will be shutting down its Tuas disk media plant.

**Chart 2.11**  
Output of Chemicals



**Chart 2.12**  
Output of Refined Petroleum and Transport Equipment



In the months ahead, the chemicals industry cluster will continue to be a key driver of growth in the manufacturing sector, as new plants come onstream in the petrochemical and industrial chemical industries<sup>5</sup>. The other non-electronics industries, such as fabricated metals, electrical and non-electrical machinery, should also begin to pick up in line with the recovery in regional demand, with output of electrical and non-electrical machinery recording their fourth month of positive growth in Nov.

Prospects for the petroleum refining and transport equipment industry remain bleak, however. In particular, the petroleum refining industry is facing a severe oversupply situation, which will be exacerbated by the start-up of massive refining capacity in India, Taiwan and around the region. The transport equipment industry is also expected to be dragged down by weak demand in the ship repair segment. This is due to keen competition from cost-competitive neighbouring countries as well as the Middle-East. However, output of air transport equipment should provide some relief as increasing passenger and freight traffic in the region drive up the need for aircraft repair and overhaul.

## Financial Services

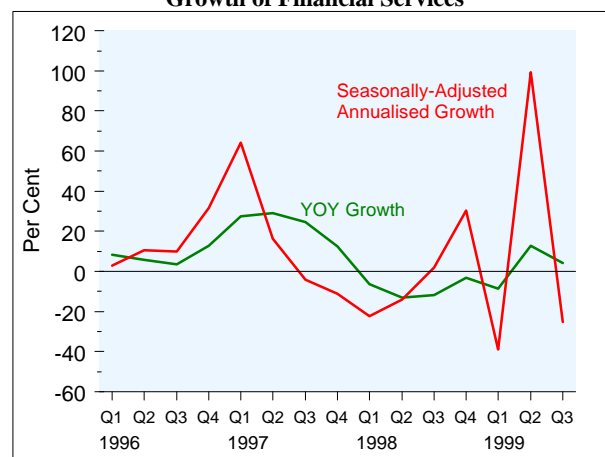
The financial services sector grew by 4.3% in Q3 99, following growth of 13% in Q2 and five previous quarters of contraction. In the first three quarters of the year, the financial services sector grew by 2.8%. On a quarter-on-quarter annualised basis, the financial services sector contracted by 25% in Q3. (See Chart 2.13.)

The slower growth rate in Q3 largely reflected a sharp moderation in stock market activity from their unsustainable levels in Q2. This also partly reflected the impact of trading limits imposed by broking firms<sup>6</sup>, the hike in US interest rates in June and August, and

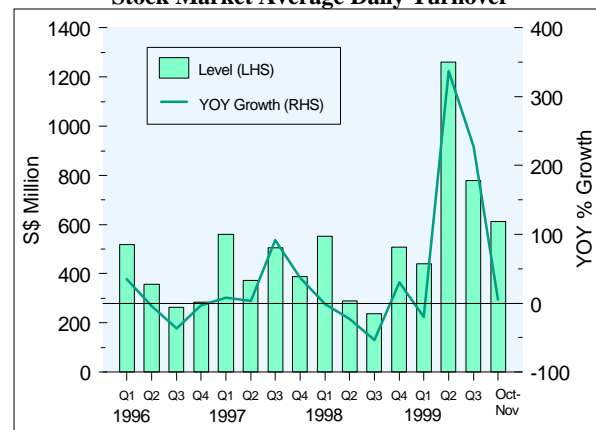
<sup>5</sup> Projects starting up next year include Exxon's 800,000 tpa cracker in Q3 2000 and its related downstream plants. This will raise Singapore's total ethylene production capacity by over 80%, from the 965,000 tpa currently supplied by PCS' two crackers to almost 1.8 million tpa altogether.

<sup>6</sup> Trading curbs were imposed by broking firms in Jul on concerns about increased risk exposure and the huge spike-up in contra trading. The curbs required clients to pay for their purchases upfront instead of in the more usual seven days. This meant that punters were restricted in their activities, and in many cases, could only sell and not buy. This set off a massive selling wave in small stocks, resulting in huge contra losses for punters in Jul.

**Chart 2.13**  
Growth of Financial Services



**Chart 2.14**  
Stock Market Average Daily Turnover



uncertainty over further increases by the US Federal Reserve. As a result, the average daily turnover on the stock market declined from \$1.3 billion in Q2 to \$778 million in Q3. It slowed down further to \$443 million in Oct, but picked up somewhat in Nov. Compared to the same period last year, the average daily turnover remained higher. It was higher by 228% in Q3 compared to 337% in Q2. In volume terms, the increase was 555% and 193% in Q2 and Q3 respectively. (See Chart 2.14.)

Trading on Singapore's futures and options exchange, the Singapore International Monetary Exchange (SIMEX), picked up in Q3 with a total of 7.16 million contracts traded compared to 6.88 million contracts in Q2. However, turnover fell by 6.7%, compared to Q3 98, and contracted further by 25% in Oct-Nov. In the foreign exchange market, total turnover continued to decline in both level and year-on-year terms. The rate of decline accelerated to 24% in Q3 compared to 12% in Q2 and 4.0% in Q1. (See Chart 2.15.)

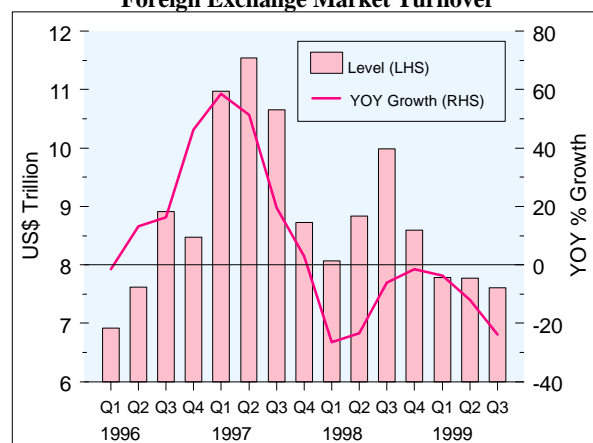
Lending in the domestic and offshore banking sectors remained weak. Commercial bank lending to non-bank customers, adjusted for the effect of DBS' acquisition of POSBank<sup>7</sup>, contracted by 3.3% in Sep 99 and 3.2% in Oct, although levels were higher in Oct compared to Sep. (See Chart 2.16.) Housing loans, in particular, continued to increase strongly as sentiments improved in the private residential property market.

Finance companies' loans and advances also contracted, albeit at a more moderate rate of 10% in Sep and 9.1% in Oct compared to 13% in Jun. In level terms, loans and advances have been increasing since Jul 99, supported by a rise in motor vehicles hire-purchase financing as consumer confidence improved. (See Chart 2.17.)

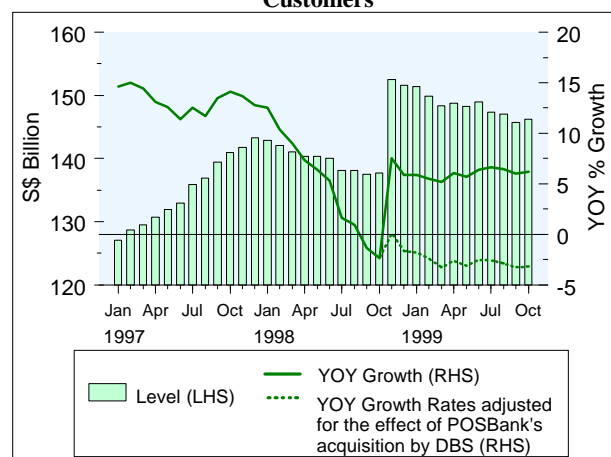
Lending in the offshore Asian Dollar Market (ADM) shrank by 2.5% in Sep 99 and 5.8% in Oct 99 as Japanese banks continued to consolidate their activity. In level terms, however, outstanding loans has been edging up since Aug, largely reflecting an increase in loans to countries outside the region. Loans to Asia as a whole remained weak although there were pockets of strength as the outlook for the region improved. (See Chart 2.18.)

<sup>7</sup> The growth of bank loans and advances to non-bank customers have been adjusted for the inclusion of loans made by POSBank following its acquisition by DBS Bank in Nov 98. The unadjusted loan growth for Sep and Oct 99 are 6.0% and 6.2% respectively.

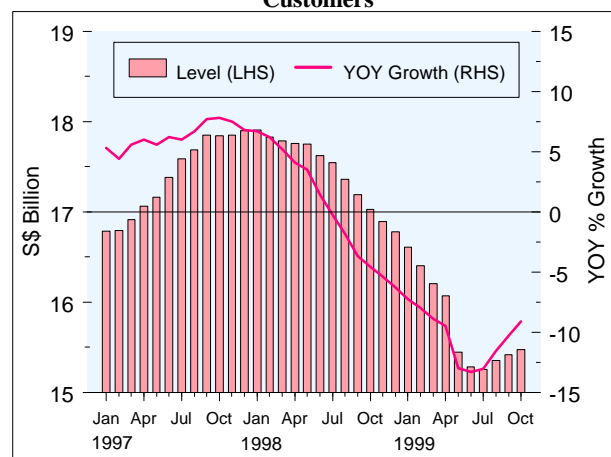
**Chart 2.15**  
**Foreign Exchange Market Turnover**



**Chart 2.16**  
**Commercial Banks' Loans and Advances to Non-bank Customers**



**Chart 2.17**  
**Finance Companies' Loans and Advances to Non-bank Customers**



The insurance industry saw business improve in Q3 on the back of a recovery in the economy. The number of new life insurance policies bought rose steadily from 74,975 in Q1 99 to 110,885 in Q3 99, while policy premiums collected rose from \$321 million to \$751 million respectively. In the first three quarters of the year, total premiums collected amounted to more than twice that collected in the same period last year. The general insurance industry also saw some improvement in business, as gross premiums collected rose for the second consecutive quarter.

The investment advisers' business has also recovered strongly this year. Total assets under management totalled \$204 billion as at Jun 99, representing a 36% increase since Dec 98, as the recovery of Asian economies encouraged fund managers to increase their activities in Asia and Singapore.

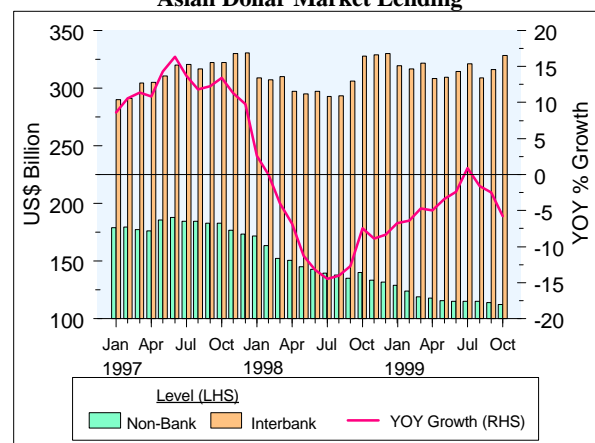
## Business Services

The business services sector grew by 1.2% in Q3, after contracting by 0.2% in Q2. Growth was led by the professional services industry. According to the Business Expectations Survey (BES) by the Department of Statistics, a net balance of 29% of business services firms (excluding real estate) reported more favourable performance in Q3, particularly firms in management consultancy, information technology and consultant engineering services. This compares to a net balance of 0% in Q2 and negative 12% in Q1.

However, real estate firms continued to fare poorly in Q3. A net balance of 31% of firms recorded lower earnings in Q3 compared to 23% in Q2, largely reflecting the deterioration in the business of property developers and real estate agents. Real estate firms are expected to perform better in Q4, with a smaller net balance of 15% forecasting slower business.

Over the next six months, a net balance of 19% of real estate firms expect brisker business, the first positive net balance since Q2 97. A net balance of 20% of business services firms (excluding real estate) also foresee higher earnings. As in the previous quarter, the bulk of firms continue to expect unchanged business prospects in the next half year. (See Chart 2.19.)

**Chart 2.18**  
**Asian Dollar Market Lending**



**Chart 2.19**  
**Business Expectations for the Next Six Months**





## Commerce

In line with the continued recovery in the regional economies and domestically, the commerce sector grew by a strong 8.4% in Q3 99, after registering growth of 5.9% in the previous quarter. (See Chart 2.20.) Stronger growth was reflected in all sub-sectors. The wholesale and retail trade sector expanded by 9.3% in Q3, reflecting a pick-up in entrepot trade. The strong growth in visitor arrivals and improved consumer sentiment also supported growth in domestic trade, and the restaurants and hotel industries. On a seasonally-adjusted quarter-on-quarter annualised basis, the commerce sector grew by 5.7%, after surging by 27% in Q2.

### Visitor Arrivals

Visitor arrivals grew by a stronger 13% in Q3 99, after growth of 8.5% in Q2. (See Chart 2.21) The strong performance reflected the general economic recovery in Asia. Arrivals from the ASEAN countries surged by 20%, after growing by 16% in Q2. In particular, Indonesian arrivals grew by 30%, while arrivals from Thailand rose by 28% as economic conditions continued to improve in both countries. Arrivals from Malaysia registered flat growth, after seven consecutive quarters of contractions. Arrivals from the NIE-3 countries also surged by 21% in Q3, after growth of 2.5% in Q2. This is the first double-digit growth since Q2 96, and reflected strong growth in Korean arrivals as the recovery in the Korean economy continued apace. Korean arrivals recorded growth of 163% in the first three quarters of the year. In addition, arrivals from both Hong Kong and Taiwan registered 4.6% and 2.6% growth respectively in Q3, the first positive growth after double-digit declines for the past two quarters.

Arrivals from the industrial countries saw stronger growth in Q3 99. Arrivals from Europe recorded a 11% growth, compared to a decline of 1% the preceding quarter. UK arrivals rose by 17% in Q3, while that from Germany saw a more modest growth. Australian arrivals grew by 14%, buoyed by strong growth in the Australian economy. Visitor arrivals from the US rose by 9.8%, while that from Japan fell by 1.2% in Q3 99.

Chart 2.20  
Commerce Sector

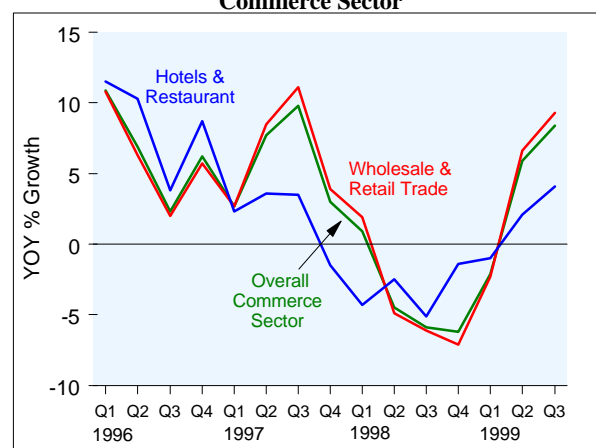
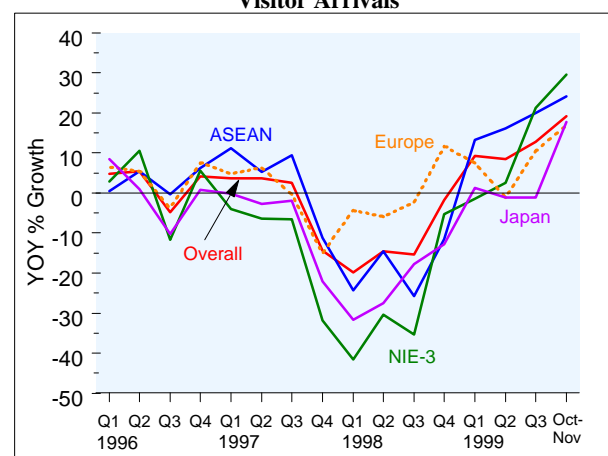


Chart 2.21  
Visitor Arrivals





For Oct-Nov 99, total visitor arrivals grew by 19%, due to continued strong growth in arrivals from ASEAN and the NIE-3 countries. Arrivals from the industrial countries also held up relatively well, with European and Japanese arrivals climbing by 17% and 18% respectively.

### *Hotels/F&B/Retail Industries*

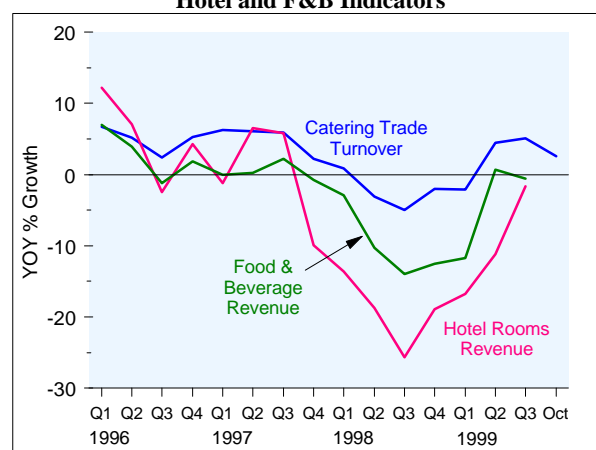
Reflecting the strong growth in visitor arrivals and improved consumer sentiment, the hotels and restaurants sector grew by 4.1% in Q3 99, compared to 2.1% growth in Q2. The wholesale and retail trade sector also expanded by a healthy 9.3% in Q3, after growing by 6.6% a quarter earlier.

In the hotel industry, revenues fell by a much smaller 1.7%, after six consecutive quarters of double-digit decline. (See Chart 2.22.) This reflected a higher 6.3% growth in hotel occupancy rate, after almost flat growth in the preceding two quarters. The occupancy rate itself stood at 77% in Q3, the highest level since Q3 97. However, average room rate continued to fall as keen competition among hotels pushed room rates down, although the rate of decline moderated to 9.9% in Q3 from 14% the preceding quarter. The average room rate fell from \$123 in Q2 to \$118 in Q3 99.

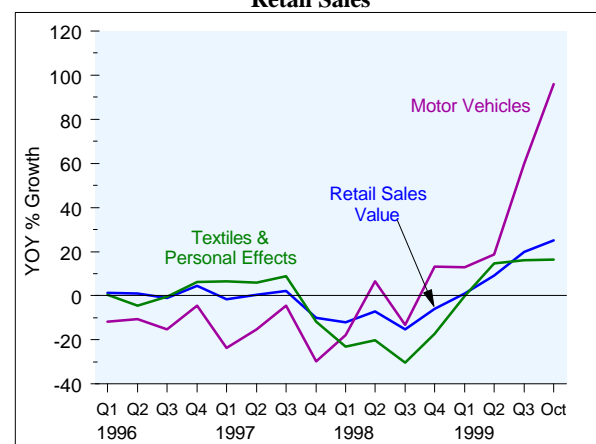
Revenues generated at food and beverage (F&B) outlets saw a marginal decline of 0.5% in Q3 99, after growing by 0.6% the previous quarter. However, revenues at fast food outlets and other eating places, like canteens and coffee shops saw stronger growth. As a result, the catering trade business (comprising restaurants, fast food outlets and other eating places) rose by 5.1% in Q3.

Retail sales surged by 20% in Q3 99, following growth of 9.1% in Q2. (See Chart 2.23.) This brought growth for the first three quarters of the year to 9.7%, compared to a decline of 10% for the whole of 1998. The increase in retail sales reflected a sharp rise in motor vehicle sales. Accounting for one-fifth of total retail sales, motor vehicle sales grew by 60% in Q3. Excluding motor vehicle sales, retail sales would have risen by 8.6%. Sales of textiles and personal effects grew by 16% in Q3, while that of furniture and household equipment grew by 12%. At department stores and supermarkets, sales rose by a smaller 7.1%.

**Chart 2.22**  
**Hotel and F&B Indicators**



**Chart 2.23**  
**Retail Sales**

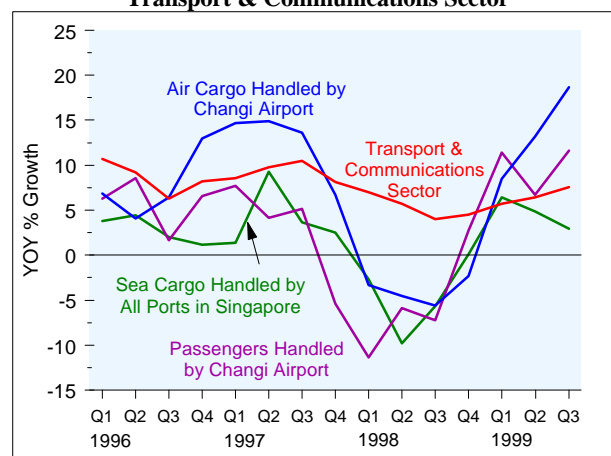


## Transport & Communications

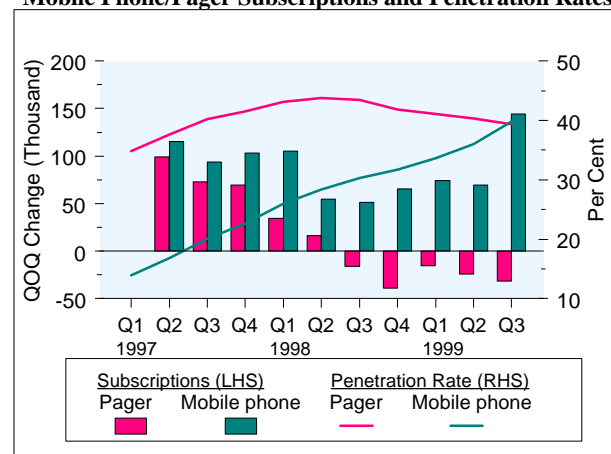
The transport & communications sector grew by 7.6% in Q3 99, stronger than 6.4% the previous quarter, due to broad-based improvement in the major sub-sectors. In the air transport industry, the volume of air cargo handled and number of passengers passing through Changi Airport rose by 19% and 12% respectively, compared to smaller growth of 13% and 6.7% in Q2 respectively. Freight and air passengers carried by Singapore Airlines also saw strong growth of 17% and 9.2% respectively. In the water transport industry, the volume of sea cargo handled at Singapore's port rose by 3.0% in Q3 99 and 6.7% in Oct, after registering growth of 4.9% in Q2. (See Chart 2.24.)

The post & communications industry continued to grow strongly. This reflected continued rapid growth in mobile phone subscriptions, which grew by 34% in Q3. (See Chart 2.25.) In addition, international call volume, an indicator of business activity, hit 74.3 million call minutes in Sep 99, one of the highest monthly volumes for the year. However, the number of pager subscriptions fell by a larger 7.8% in Q3 due to market saturation and narrowing price differential between pagers and mobile phones, while internet dial-up subscriptions registered a slightly smaller growth of 36% in Q3, compared to 40% in Q2.

**Chart 2.24**  
Transport & Communications Sector



**Chart 2.25**  
Mobile Phone/Pager Subscriptions and Penetration Rates



### Construction

The construction sector deteriorated further in Q3 99 with a deeper contraction of 16%. This follows declines of 9.1% and 13% in Q1 and Q2 respectively. Certified payments, a direct indicator of the level of construction activity, shrank by 24% in Q3. This was largely due to the sharp drop in private construction activity, as developers remained cautious in view of the excess supply in the residential and non-residential markets. (See Chart 2.26.)

While the stock of unsold private housing units has been significantly reduced from its peak of 20,565 units in Q2 98, it remains relatively high at 13,760 in Q3, up slightly from 12,715 the quarter before. (See Chart 2.27.) Occupancy rates have also remained weak, especially in the office and industrial space markets, although occupancy rates for private residential units have been trending up since its trough in Q3 98.

At the same time, public residential construction activity was dampened by reduced demand for new HDB flats as lower property prices last year prompted first-time home buyers to migrate out of the queue for new HDB flats in favour of resale HDB flats. This resulted in the proportion of first time home buyers who bought resale flats using CPF housing grants rising sharply from 8% in 1995 to 71% in 1998. Concomitantly, the queue for new HDB flats declined from its peak of around 150,000 applicants in early 1997 to 63,000 in Aug 99.

The construction sector is likely to remain weak in 2000. Overall construction activity will be dampened by the diminishing pipeline of new non-residential construction projects, and while the recent spate of enbloc sales bodes well for the private residential property sector, it will take some time before this is translated into actual construction activity. For the first three quarters of 1999, total contracts awarded, a leading indicator of construction activity, fell by 36%, comparable with the 35% decline for the whole of last year. Preliminary estimates show that a total of \$299 million worth of private residential contracts were awarded in Oct 99 compared to an average of \$125 million in the first nine months of the year, and represented the largest amount awarded since Feb 98. Public sector contracts awarded, on the other hand, continued to decline. (See Chart 2.28.)

Chart 2.26  
Construction Sector

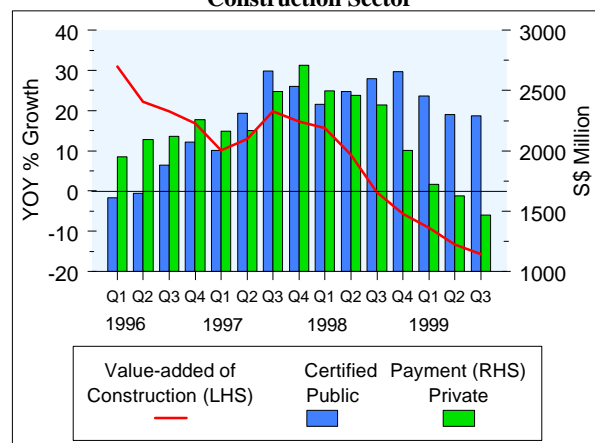


Chart 2.27  
Supply of Units and Take-Up Rates

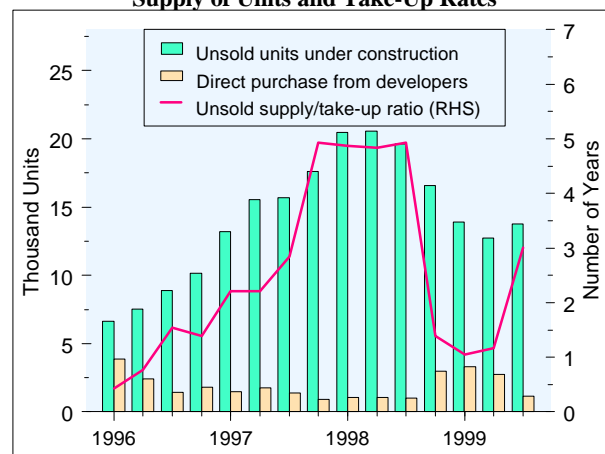
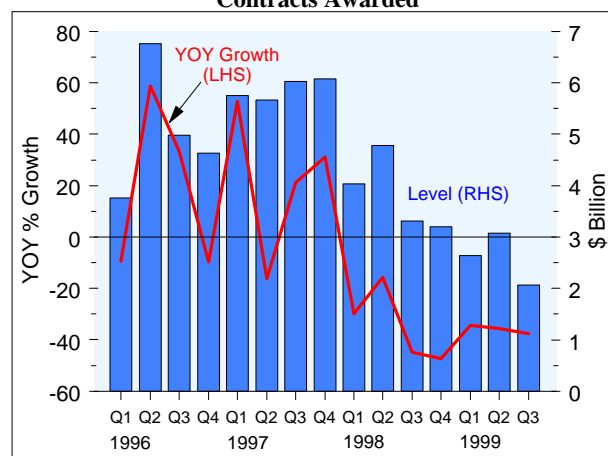


Chart 2.28  
Contracts Awarded



## 3 Inflation

Consumer prices continued to trend up in Q3 99, rising by 0.9% year-on-year after a 0.1% increase in Q2. In Oct-Nov 99, CPI inflation came in at 1.3%, bringing average inflation in the first eleven months of the year to 0.4%. Foreign CPI inflation has generally remained benign despite a more buoyant economic environment. Commodity prices, however, are seeing a trend increase, reflecting sharp increases in oil prices. In the domestic property market, private residential prices rose further, to 26% above the levels at end-1998. Equity prices, which rose strongly in the first half the year, have consolidated since July.

### 3.1 External Inflation

#### Foreign CPI Inflation

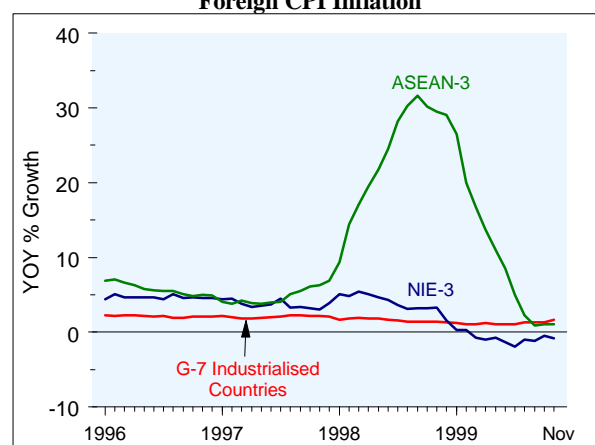
Price pressures in both regional and industrial countries have remained benign. (See Chart 3.1) Despite a more buoyant economic environment in recent months, inflation in the regional countries has not picked up significantly. CPI inflation in Thailand was -1.0% and -0.3% respectively in Q3 and Oct-Nov 99, compared with -0.4% in Q2, while that in Malaysia moderated to 1.8% in Oct-Nov 99, from 2.3% in Q3 and 2.7% in Q2. Inflation in Indonesia has also steadily declined to 1.6% in Oct-Nov 99, from 6.6% in Q3 and 31% in Q2.

Consumer price inflation in Hong Kong and Taiwan remained negative, while South Korea recorded mild inflation of 1.3% in Oct-Nov 99. Although price pressures have risen in the US, the inflation trend in the G-7 industrialised countries as a whole has stayed low, averaging 1.1% in Q3 and 1.5% in Oct-Nov 99.

#### Commodity Prices

Prices of world commodities have risen by some 40% as of Nov 99, from the all-time low price level recorded in

Chart 3.1  
Foreign CPI Inflation



Feb 99, driven by sharp spike in world oil prices. (See Chart 3.2.) The average price of OPEC oil stood at US\$19.95 per barrel in Q3 99 and an average of US\$22.69 per barrel in Oct-Nov 99, or increases of 31% and 49% respectively compared with Q2. This was mainly fuelled by concerns that OPEC supply curbs could be extended until end of next year, nine months beyond the scheduled expiry in March 2000, as well as a possible shortfall in oil supply ahead of the peak winter season. In tandem with the rising world oil prices, there was a surge in the domestic wholesale prices of mineral fuel, by 48% in Q3 99 and 60% in Oct-Nov 99. (See Chart 3.2.) However, the impact on consumer prices has been muted. The relationship between oil prices and CPI inflation is discussed further in the Box Item 2, 'World Oil Prices and the Singapore Economy'

In contrast, world prices for non-oil commodities continued to fall, albeit at a less severe rate of decline. Prices of base metals had risen in line with the strengthening of industrial production in Asia. On the other hand, price inflation of soft commodities such as rice, sugar, coffee, and palm oil remained relatively weak. Prices of rice were dampened by abundant production of new crops and limited new import demand from major buying countries. Price inflation of coffee was less negative in recent months amid forecasts of persistent dry weather in Brazil's growing regions. Palm oil prices also saw a milder decline following the recent political unrest in the main crop-growing region in Indonesia, as well as the prospect of an increase in China's commodity import quota for Malaysian crude palm oil. However, prices of palm oil remained depressed by surpluses. (See Chart 3.3.)

## 3.2 Consumer Price Inflation

### Overall CPI Inflation

Overall CPI inflation continued on an uptrend in Q3 99, rising by 0.9%, from 0.1% in Q2. Inflation rose further to 1.3% in Oct-Nov 99, and this brought average inflation in the first eleven months of the year to 0.4%. (See Chart 3.4.)

A significant proportion of the recent increase in inflation was due to more rapid price inflation of goods,

Chart 3.2  
Commodity Prices

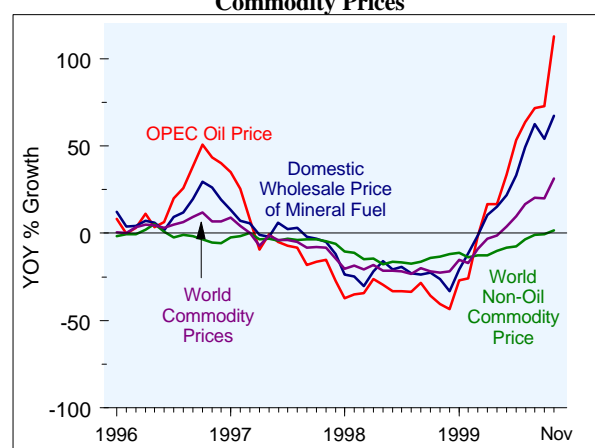


Chart 3.3  
Non-Oil Commodity Prices

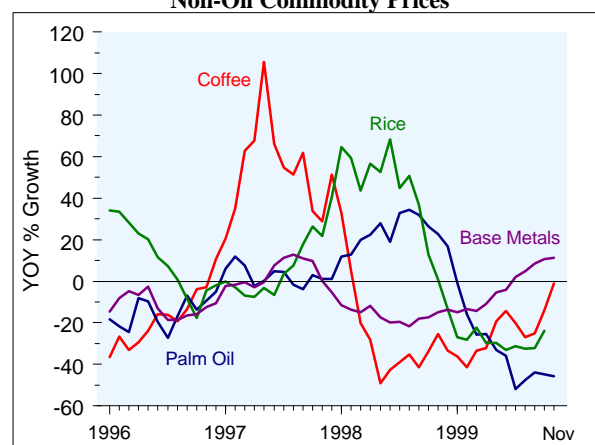
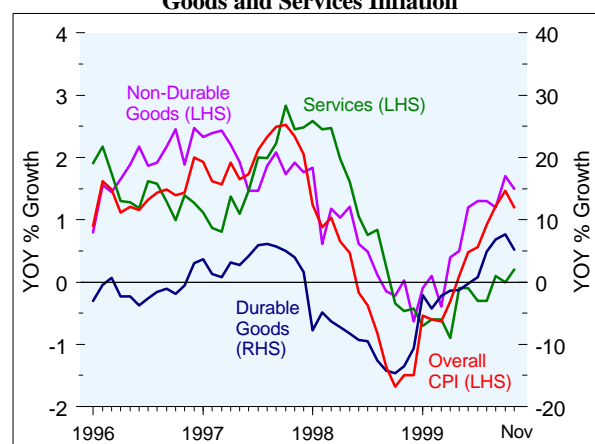


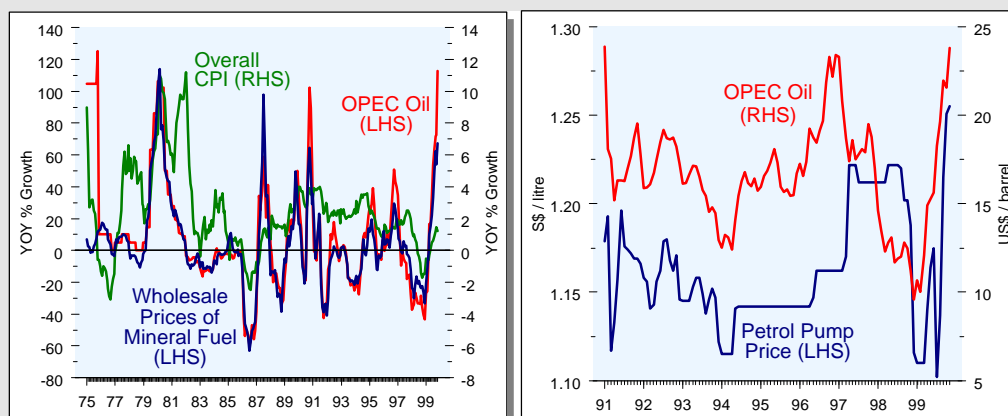
Chart 3.4  
Goods and Services Inflation



### Box Item 2: World Oil Prices and the Singapore Economy

In the past few months, world oil prices have turned around and risen sharply. OPEC prices are presently about 148% higher compared with the all-time low of US\$9.60 per barrel in Dec 98. Prices were pushed down in 1997 and 1998, largely due to a fall in Asian demand and mild weather in some parts of the world, as well as a boom in the world supply of oil. Singapore, which is a major supplier of refined oil to this region, saw a significant fall in the growth of oil exports. However, in Mar 99, the 11-nation Organisation of Petroleum Exporting Countries (OPEC) announced production cuts of 5 million barrels per day, representing some 7% of global output. Compliance with the concerted output curbs has been high at around 90%, and oil prices steadily trended up. More recently the increases have been exacerbated by Iraq's threat of suspending oil exports in its oil-for-food agreement with the United Nation, as well as the shrinking stockpiles ahead of the peak winter season.

Chart 2A: Oil Prices and CPI Inflation



Wholesale prices of mineral fuel have fluctuated in tandem with oil prices. However, the proportion of Singapore's CPI basket that is directly affected by world oil prices is small at about 9%, mainly comprising transport costs and electricity & gas tariffs. The impact would be larger if indirect effects, such as that of electricity & gas tariffs on cooked food prices, are taken into account. The effect of higher crude oil prices on CPI inflation was marginal and largely the result of hikes in petrol pump prices, which have increased by about 10% since Apr 99. However, electricity & gas tariffs have not risen, as the power company's applications to the Public Utilities Board to raise rates have not been successful thus far. Although oil prices have risen sharply, the impact of the latest hike on consumer prices in the current period as well as during the Gulf War in 1990 was milder than that seen during the oil price shocks in early 1980s.

Beside consumer prices, changes in oil prices also influence other areas in the Singapore economy. In particular, being a net exporter of refined oil products, developments in the world oil market would affect the Singapore's oil refining industry, which accounted for around 5% of total manufacturing output. The local oil refining industry has been in the doldrums for almost two years, hit by the decline in Asian demand during the economic downturn, and further by excess capacity, which has narrowed refining profit margins. The run-up in crude oil prices, coupled with the lag in product prices, exacerbated the squeeze on margins. Output of refined petroleum has continued to decline, by some 15% in Oct-Nov 99, as refiners reduced their operations to 60-70% below capacity. Both crude and refined oil also serve as inputs into other industries and, as such, oil prices have a direct impact on the costs of production and output prices of oil and non-oil goods and services. Based on the 1990 Input-Output tables, oil accounted for 18% of inputs into the manufacturing sector. Partly reflecting the recent increase in oil prices, the cost of locally manufactured goods rose by 5.3% in Nov 99, the fourth consecutive month of increase following more than two years of decline. The proportion of oil imports in total manufacturing output was about 22% and, with the more than 50% increase in imported inflation of mineral fuel in Q3 and Oct-Nov 99, this has caused the overall Domestic Supply Price Index (DSPI) to trend up. Nonetheless, the increase of the DSPI has been considerably less than the rise in world crude oil prices.



especially durable goods. In contrast, price inflation of services remained negative in Q3, and only rose by a marginal 0.1% in Oct-Nov. (See Chart 3.4.) The rise in the price inflation of durable goods was partly due to the low base in 1998, as well as an upsurge in the cost of private road transport. In view of improved demand for cars, the premium on the Certificate of Entitlement (COE) – a certificate required for car ownership in Singapore – reached a peak in Q3 99, before moderating further in the following quarter. Moreover, the strengthening of the Japanese Yen, which has appreciated against the Singapore Dollar by nearly 17% compared with the same period last year, has also translated into higher car prices.

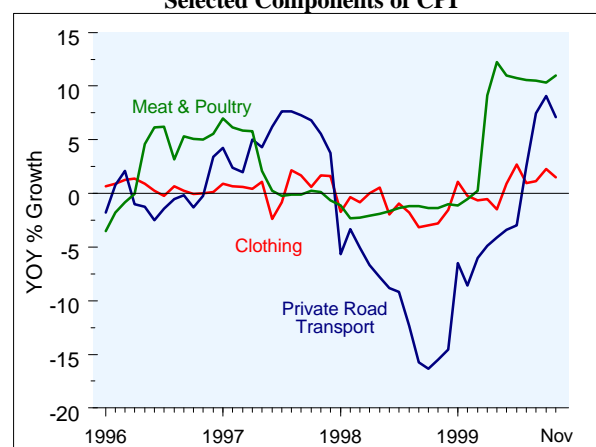
Prices of non-durable goods also rose, with higher prices of food, clothing and petrol. (See Chart 3.5.) The uptrend in the price inflation of food, particularly that of non-cooked food, was underpinned by continued double-digit increase in prices of meat and poultry due to higher operation costs of pork sellers from installation of chillers. Bolstered by increased consumer spending, price inflation of clothing has also picked up. Petrol pump prices have risen substantially in recent months, reflecting higher international crude oil prices.

Despite the higher costs of education as well as of fuel and utilities, overall price inflation of services remained subdued. The increase in prices in Oct-Nov was supported by higher costs of miscellaneous items like tour packages. However, accommodation costs, which comprise 36% of the services inflation, contracted, reflecting continued weak rentals. The cost of communications has also continued to fall, as competition and further liberalisation of the telecommunications market expected next year have kept charges down. (See Chart 3.6.)

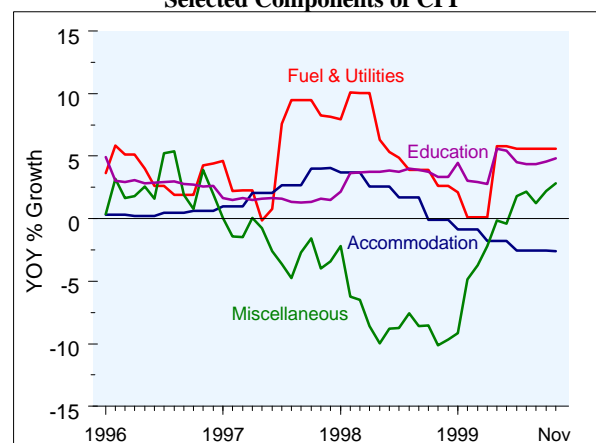
## Underlying Inflation

A better indication of an economy's underlying price trend can be derived from underlying inflation measures. These core inflation measures, which systematically exclude those components that exhibit excessive price volatility from the CPI basket, would minimise the impact on CPI inflation arising from temporary and idiosyncratic shocks.

**Chart 3.5**  
Selected Components of CPI



**Chart 3.6**  
Selected Components of CPI



The MAS underlying inflation, which excludes the cost of private road transport and accommodation, rose by 1.5% in Q3 99 and 1.4% in Oct-Nov. This mirrored the trend in overall CPI inflation over the last few months. The effect on MAS underlying inflation of excluding the higher cost of private road transport was offset by that of excluding the lower cost of accommodation. The volatility-adjusted inflation, which further excludes cooking oil & fats, vegetables, alcoholic drinks & tobacco and haberdasheries, also rose in a similar fashion. The median and the 30%-trimmed mean inflation rates have also turned around more strongly, although both remained below that of the headline CPI inflation. (See Chart 3.7.)

### Outlook for Inflation

CPI inflation has steadily edged higher in recent months, largely due to the rise in cost of private road transport. Nevertheless, measures of underlying inflation, which exclude this component, have also risen, reflecting ad-hoc price hikes and the recovery in consumer demand as the economy picked up. Moreover, CPI inflation had reached a trough during the same period last year, hence providing a low base for comparison this year. Upward price pressure on domestic wholesale prices, as measured by the Domestic Supply Price Index (DSPI), has intensified as world oil prices escalated. However, underlying DSPI, which excludes crude materials and mineral fuels, was weak. (See Chart 3.8)

Overall CPI inflation is forecast to be at 0.5% for 1999 as a whole. Both the MAS underlying and the volatility adjusted inflation are expected to come in higher at 1.1% and 1.0% respectively for the full year, compared with 0.5% and 0.6% in 1998. In contrast, forecasts for the median and 30%-trimmed mean inflation is pointing to lower inflation compared with 1998. Looking ahead to the year 2000, both CPI inflation and underlying inflation are forecast to come in at 1-2%.

Chart 3.7  
Measures of Core Inflation

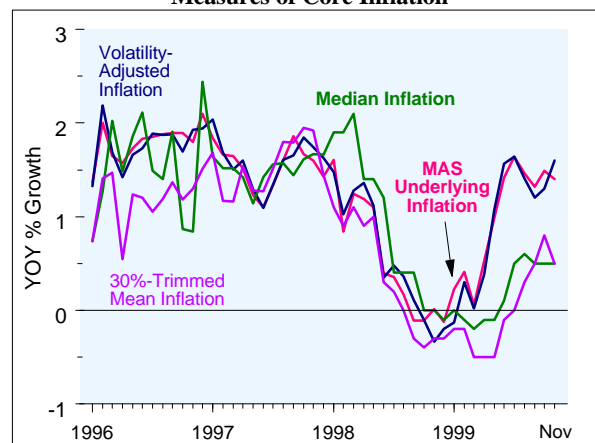
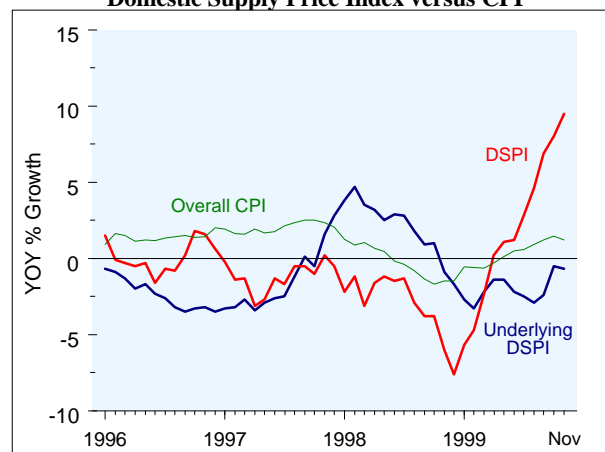


Chart 3.8  
Domestic Supply Price Index versus CPI



### 3.3 Asset Price Inflation

#### Property Prices

##### *Residential Property Prices*

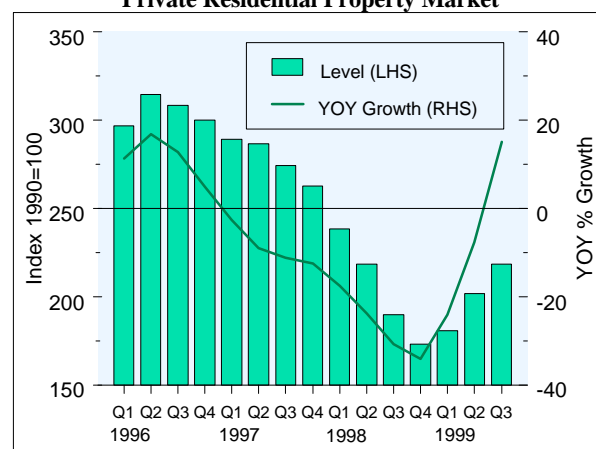
Private residential property prices continued to rise by 8.3% on a quarter-on-quarter basis in Q3 99, following increases of 11% in Q2 and 4.4% in Q1. The private property price index also saw its first year-on-year rise in Q3 99 after 10 consecutive quarters of decline, with prices some 15% higher compared with Q3 98. Since end-98, private residential property prices have risen by a total of 26%, although it is still some 31% lower than its peak in Q2 96. The stock of unsold private housing units inched up to 13,760 in Q3, from 12,715 the quarter before, as the take up rate moderated in Q3. (See Chart 3.9.)

##### *Commercial and Industrial Property Prices*

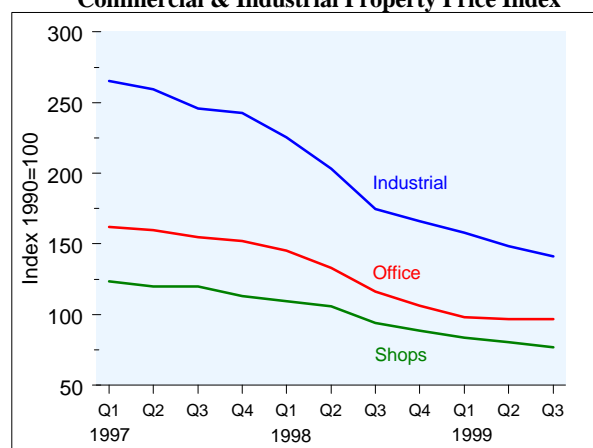
In contrast, prices of commercial property (shop and office space) continued to fall in Q3 99, although the rate of decline moderated compared with previous quarters. Commercial property prices dropped by 18% on a year-on-year basis and 2.3% on a quarter-on-quarter basis in Q3, as oversupply continued to dampen the commercial property market. (See Chart 3.10.) With occupancy rates for both shop and office space remaining weak at 91.2% and 85.3% respectively, rentals continued to decline by 1.4% for shop space and 2.4% for office space, compared with the previous quarter. (See Chart 3.11.)

Industrial property prices declined by 19% year-on-year and by 4.9% on a quarter-on-quarter basis, despite a marginal increase in occupancy rates from 89.8% in Q2 to 90.1% in Q3. The sustained decline in prices could partly reflect some pass-through effect of the government's 55% tax rebates for commercial and industrial properties, which have been extended by another year to Jun 2000.

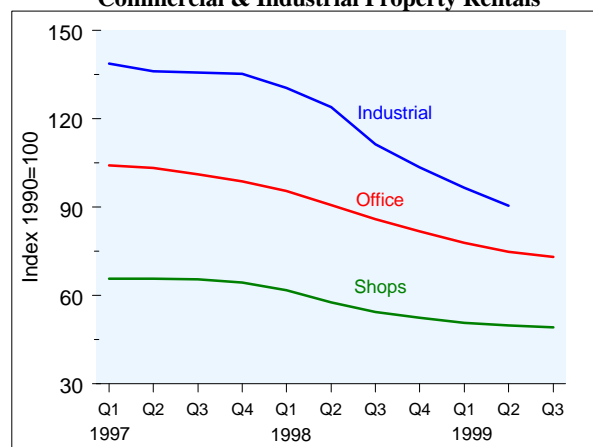
**Chart 3.9**  
**Private Residential Property Market**



**Chart 3.10**  
**Commercial & Industrial Property Price Index**



**Chart 3.11**  
**Commercial & Industrial Property Rentals**



## Equity Prices

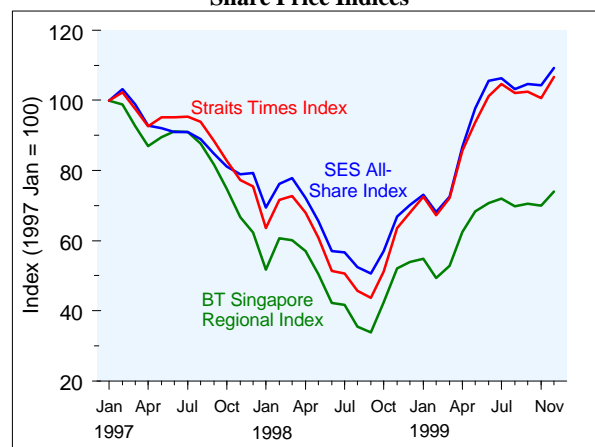
Following a sharp rebound in share prices in the first half of the year, prices have consolidated since July. The Stock Exchange of Singapore (SES) all-share index rose by 20% in H1 99, but has remained relatively flat through Oct before picking up in Nov.

From a high of 2,222 on 2 Jul 99, the STI moderated to 2,053 in October before recovering to 2,175 in November. Much of the euphoria in the stock market in H1 99 was fuelled by speculative play by retail investors, which has been dampened by the trading curbs imposed by broking houses in July as well as interest rate hikes by the US Federal Reserve. This has corresponded to a sharp decline in trading activity since its peak in June, with an average daily turnover of \$1.72 billion. The average daily turnover fell to a low of \$443 million in Oct before recovering to \$781 million in Nov.

The Business Times Singapore Regional Index (BT-SRI) has also been trading relatively flat since July before showing some pick-up in Nov. The BT-SRI was introduced in Oct 96 in response to the growing exposure to the region and to allow foreign funds to track the performance of their portfolios of stocks with regional interest. (See Chart 3.12.)

*Domestic Economy Division*

**Chart 3.12**  
**Share Price Indices**



## 4 Labour Market

### 4.1 Employment

Labour demand strengthened for a third consecutive quarter in Q3 99, in line with strong sustained growth in the economy. The job vacancy rate rose to 2.5% in Sep 99, from a trough of 1.3% in Dec last year. The average monthly recruitment rate increased as well, from 2.0% to 2.9% over the same time period. (See Chart 4.1.)

The seasonally-adjusted job vacancy to unemployed persons ratio improved to 0.60 in Sep 99, almost doubling from the low of 0.32 in Sep 98. Nevertheless, this is still significantly lower than the average ratio of more than 2 in 1996-97. Concomitantly, the re-employment rate picked up to 65% in Sep 99, from 60% in Jun 99 and a low of 54% in Mar 99. (See Chart 4.2.) At the same time, the average time required for the re-employed workers to secure new employment has fallen to 1.4 months, from 1.6 months a quarter ago.

Reflecting the strong pick-up in economic activity since Q2, total employment rose for the second quarter in a row, following three quarters of contraction. As in the previous quarter, gains in employment in the services and manufacturing sectors more than compensated for the decline in the construction sector, resulting in a net gain of 7,671 in Q3 99. However, this is a significant decline from net job gains of 15,532 in Q2, reflecting a spate of retrenchments in the disk drive industry, as well as seasonal factors in the services sector. (See Chart 4.3.)

The number of retrenchments remained relatively high at 3,395 in Q3. This is close to the average of 3,376 per quarter in H1 99 but considerably lower than the 7,272 per quarter recorded last year. The manufacturing sector accounted for the more than half of total retrenchments, with most of the job losses occurring in the electronics industry. In the services sector, 1,531 persons were retrenched, mainly from the wholesale & retail and business and real estate industries.

Reflecting the continued high level of retrenchments, increased structural employment among the lower

Chart 4.1  
Indicators of Labour Demand

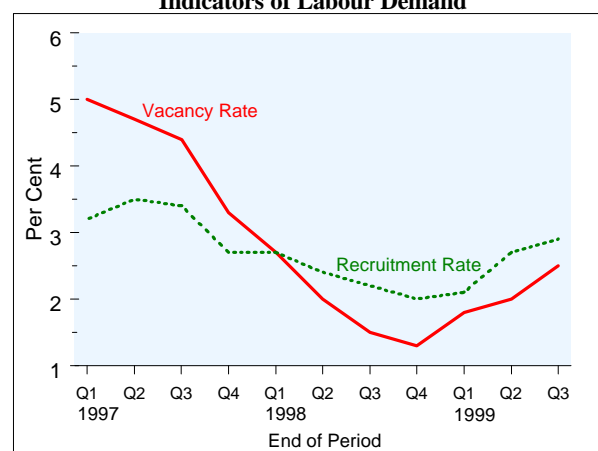


Chart 4.2  
Re-Employment Rate

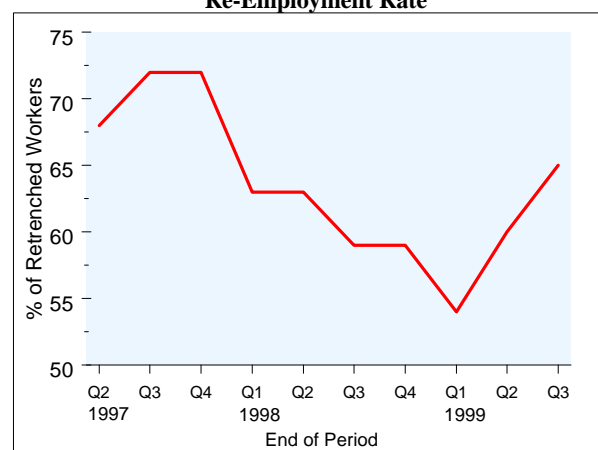
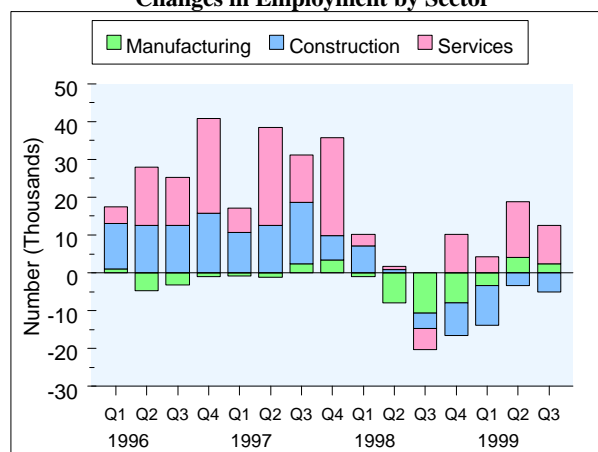


Chart 4.3  
Changes in Employment by Sector



educated, and slower absorption of fresh graduates into the employment pool, the seasonally adjusted unemployment rate rose to 4.0% in Sep 99, from 3.3% in Jun and 3.9% in Mar. Nevertheless, this is lower than the 4.4% recorded at end-1998. (See Chart 4.4.)

## 4.2 Earnings, Productivity and ULC

Given the ongoing recovery in economic activity, nominal earnings<sup>8</sup> rose for the second consecutive quarter, by 3.5% in Q3. Productivity growth remained high at 6.9%, which together with the cut in employers' CPF contribution rate in Jan 99, continued to hold down unit labour costs. (See Chart 4.5.) Real earnings rose by 2.6%, after a 0.9% increase in the previous quarter.

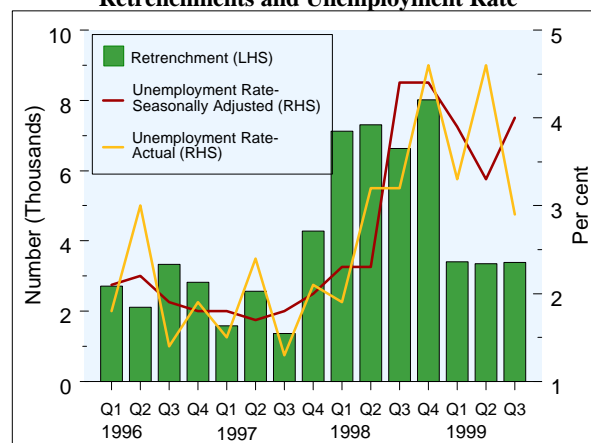
The outlook for employment has improved in line with the pick-up in economic growth. This is reflected in the findings of Economic Development Board's (EDB) Survey of Business Expectations of the Manufacturing Sector and the Department of Statistics' (DOS) Survey of Business Expectations of the Commerce and Services Sectors. The survey by EDB showed that a net balance<sup>9</sup> of 8% of all manufacturing industries expected to increase employment in the next quarter, up from 6% in Q2 99. At the same time, in the services sectors, a majority of the respondents in all of the industries expected to hire more workers in Q4 99. (See Chart 4.6.)

### Domestic Economy Division

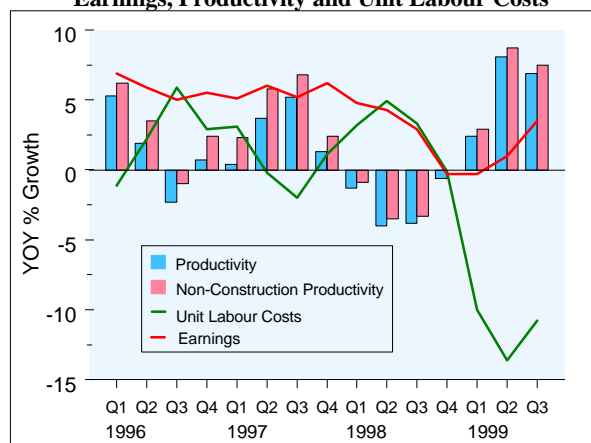
<sup>8</sup> Earnings refer to total remuneration (including bonuses) received before the deduction of employee's CPF contributions and personal income tax. Employer's CPF contributions, however, is excluded.

<sup>9</sup> Net balance is the difference between the percentage of firms reporting more favourable performance minus the percentage reporting less favourable performance.

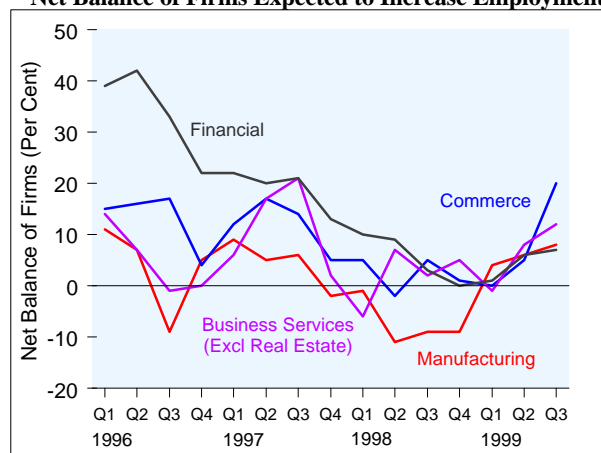
**Chart 4.4**  
**Retrenchments and Unemployment Rate**



**Chart 4.5**  
**Earnings, Productivity and Unit Labour Costs**



**Chart 4.6**  
**Net Balance of Firms Expected to Increase Employment**





# 5 Money and Credit

## 5.1 Monetary Aggregates

Money supply growth slowed in Q3 compared with the previous quarter. Narrow money, M1, expanded by 15.4%, down from 18.9% in Q2. Broad money measures M2 and M3 also grew less rapidly at 28.4% and 7.3% respectively, moderating from 30.4% and 8.5% in the quarter before. These figures reflected the full incorporation of POSBank's data following its acquisition by the Development Bank of Singapore (DBS) in Nov 98. (See Chart 5.1)

Adjusted for the effects of the acquisition<sup>10</sup>, M1 grew by 15.1% in Q3. Although currency in active circulation grew more rapidly, a dip in demand deposit growth constrained narrow money expansion to below the 18.7% recorded in Q2. Adjusted M2 grew by 9% in Q3, compared with 10.5% in Q2, while M3 increased by 7.3%, down from 8.5%, reflecting slower growth of savings and other deposits. Similar trends were recorded in October, as adjusted M1, M2 and M3 saw further moderation in growth to 11.9%, 8.2% and 6.7% respectively.

From the asset-side perspective, the slowdown in M2 growth was attributed to weaker domestic credit. Growth of bank lending to both public and private sectors was lower in Q3 than in Q2. There was also a rise in government deposits with banks, which further lowered net domestic credit to the government. Although the expansion of net foreign assets held by monetary authorities and commercial banks was larger in Q3, the impact was outweighed by the decline in bank credit. (See Chart 5.2)

## 5.2 Domestic Credit

Bank credit to the non-bank private sector grew by 6.0% on a year-on-year basis in Q3 and by 6.2% in Oct, compared with 6.4% in Q2.

Chart 5.1  
Monetary Aggregates

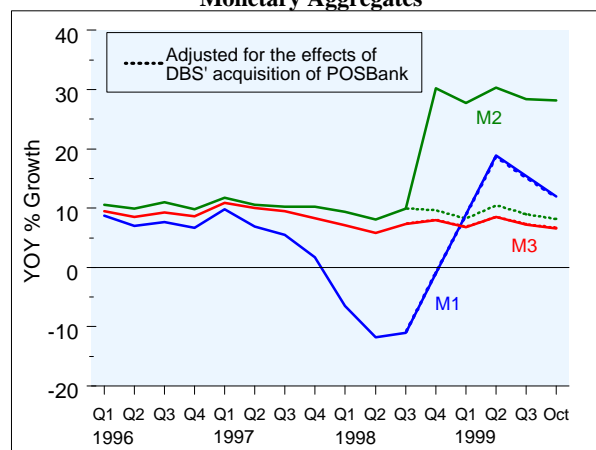
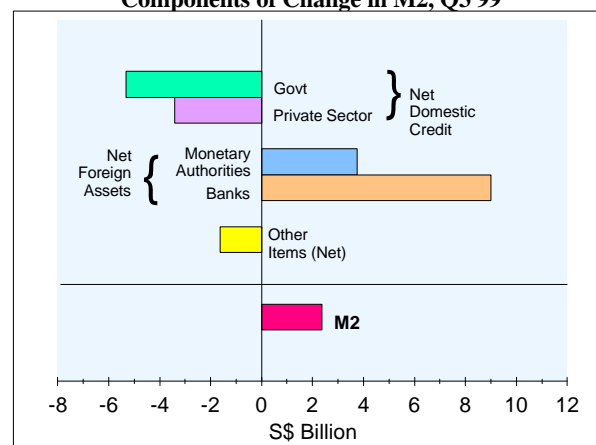


Chart 5.2  
Components of Change in M2, Q3 99



<sup>10</sup> The effect of DBS' acquisition of POSBank was adjusted by incorporating the full POSBank data in the year-ago period.

Adjusted for POSBank loans<sup>11</sup>, credit extended to non-bank customers contracted by 3.3% in Q3 and 3.2% in Oct. One of the few areas to see positive growth, housing loans were boosted by the sustained pickup in property transactions and banks' offer of attractive mortgage financing packages. As a result, loans to the building and construction (including housing loans) industry expanded by 20% in Q3 and 19% in Oct. Lending to professionals & private individuals also recorded a small rise of 0.5% in Oct, following declines of 2.6% in Q2 and 0.3% in Q3. (See Chart 5.3.)

Nevertheless, lending to the other industrial sectors continued to see negative growth, although the declines had eased somewhat. Bank credit to the manufacturing sector shrank by 9.6% in Oct, compared with 12% in Q3, while the contraction in loans to the commerce sector and to non-bank financial institutions eased to 8.6% and 1.8% respectively in Oct, from 11% and 2.3% in Q3. (See Chart 5.4.) On the other hand, credit extended to the transport & communications industry slipped into negative territory from positive growth rates in the second quarter. Although it rose at double-digit rates in Q2, lending to the transport and communications sector declined by 3.3% in Q3 and a sharper 14% in Oct.

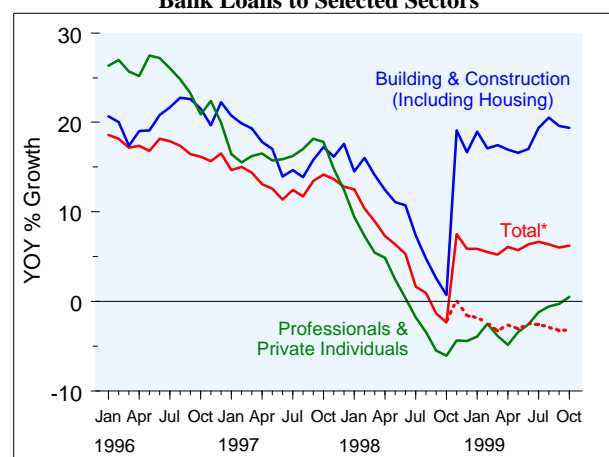
Loans limit granted by banks fell further in Q3 and Oct, by \$4.0 billion and \$1.4 billion respectively, compared with a decline of \$1.3 billion in Q2. (See Chart 5.5.) The loans limit granted to most industrial sectors declined. In particular, that to the manufacturing and commerce sectors fell by \$1.5 billion and \$2.0 billion respectively in Q3, from a contraction of about \$880 million each in Q2. Nevertheless, the utilisation rate of the loans limits remained above 60%, substantially higher than the average of 55% in 1997 and 57% in 1998.

### 5.3 Interest Rates

The external interest rate environment has tightened further since the middle of the year. Due to worries over inflationary pressures in the fast-growing US economy, the US Federal Reserve raised its official interest rate

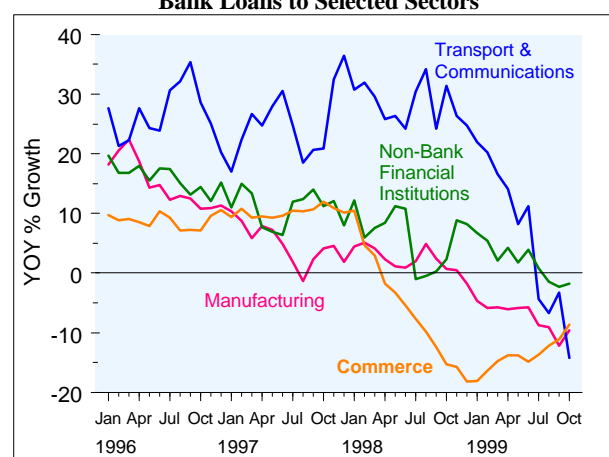
<sup>11</sup> See previous footnote.

**Chart 5.3**  
**Bank Loans to Selected Sectors**

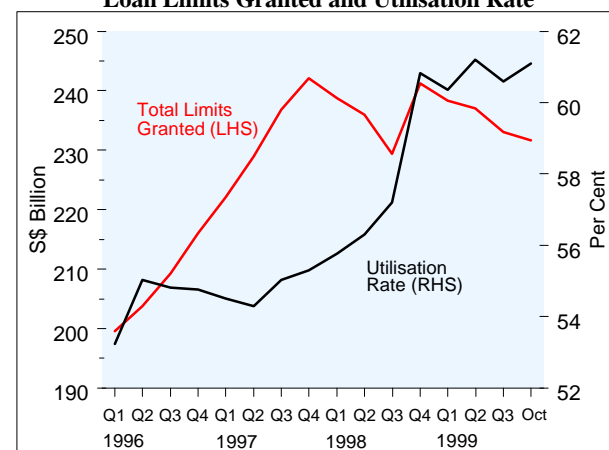


\* Dotted line refers to total bank loans adjusted for the effects of DBS' acquisition of POSBank in Nov 98

**Chart 5.4**  
**Bank Loans to Selected Sectors**



**Chart 5.5**  
**Loan Limits Granted and Utilisation Rate**



three times between June and November by a total of 0.75%. In the same period, both the Bank of England and the European Central Bank also raised their respective official interest rates by 0.5% each.

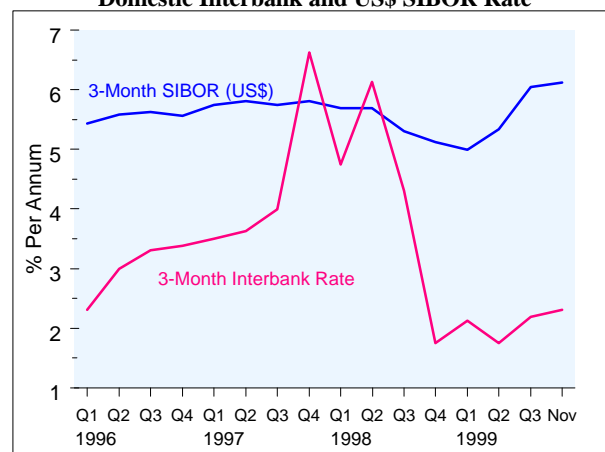
In part due to the trends of interest rates in these major economies, the benchmark 3-month interbank rate also rose to 2.31% in November, compared with 1.75% in June. This was a smaller increase compared to the rise in the offshore 3-month US\$ SIBOR, resulting in the widening gap between these two interest rates, from 3.59% in June to 3.81% in November. (See Chart 5.6.)

The increase in the interbank rate did not affect retail interest rates, however. Since the end of January 1999, the average prime lending rate has remained at 5.8% while the average 12-month fixed deposit rate has been at 2.46% since the end of March. Banks have not raised interest rates as deposits have continued rising even as bank lending growth continued to be weak.

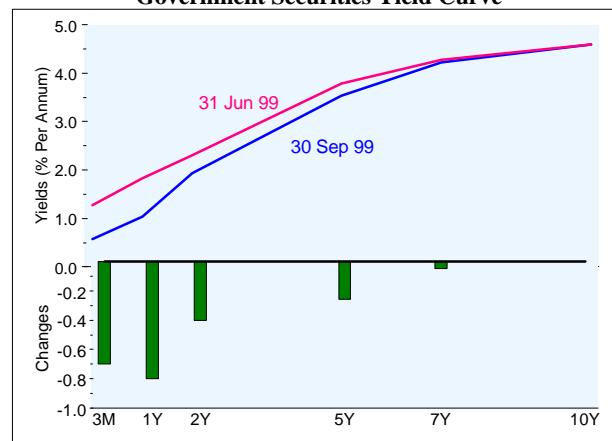
Partly reflecting a decline in the stock of outstanding Singapore Government Securities (SGS), prices of key benchmark issues rose in September, compared with June. Concomitantly, yields on SGS were lower across most of the term structure in September. Yields on shorter-term issues fell the most, with the three-month T-bill rate down by 70 basis points. The decline in yields on the 2-year, 5-year, and 7-year SGS were progressively smaller, ranging from 36 basis points to 5 basis points. The yield on the 10-year bond was unchanged. In November, shorter-term yields rose marginally, while those at the longer end declined. (See Chart 5.7.)

### *Domestic Economy Division*

**Chart 5.6**  
**Domestic Interbank and US\$ SIBOR Rate**



**Chart 5.7**  
**Government Securities Yield Curve**



## 6 Fiscal Balance

### 6.1 Overall Balance

The government's financial position continued to improve in the third quarter of 1999, following the surplus recorded in the previous quarter. The overall surplus<sup>12</sup> rose to \$4.1 billion in Q3 from \$2.1 billion in Q2. (See Chart 6.1.) This increase was boosted by the larger expansion in operating revenue. For the first 3 quarters of 1999, the government accumulated a surplus of \$2.8 billion, compared with a surplus of \$3.1 billion over the same period in 1998.

During the Budget announcement in Feb 99, the government had forecast a deficit of \$5.1 billion for FY99. However, the strong recovery in the economy has boosted government revenue, and this has contributed to an accumulated surplus of \$6.3 billion in the first two quarters of FY99.

### 6.2 Operating Revenue

Total operating revenue increased by \$2.6 billion in Q3 to \$9.1 billion. On a year-on-year basis, it rose by 27%, as revenue collection from most categories expanded.

Both tax and non-tax revenue grew by 21% and 60% respectively, to \$7.2 billion and \$1.9 billion in Q3. Tax revenue collection was boosted by income tax revenue, which increased to \$4.4 billion in Q3 from \$2.5 billion in Q2. A large part of this increase was due to contributions from the statutory boards. At the same time, corporate and personal income tax collection rose by 0.6%, in contrast to the contractions of 17% and 11% in Q1 and Q2 respectively. (See Chart 6.2.) This partly reflected the increase in the number of people in the higher income group which, coupled with the progressive personal income tax rates, boosted personal income tax revenue.

The largest increase in tax revenue came from stamp duty collection, which jumped by 73% year-on-year to \$387 million in Q3. (See Chart 6.3.) As stamp duty on contract notes for share transactions were suspended till June 2000, the significant increase in stamp duty collection reflected revenue from property transactions.

<sup>12</sup> This is defined as operating revenue less total expenditure, i.e. both operating and development expenditure.

Chart 6.1  
Government Finance

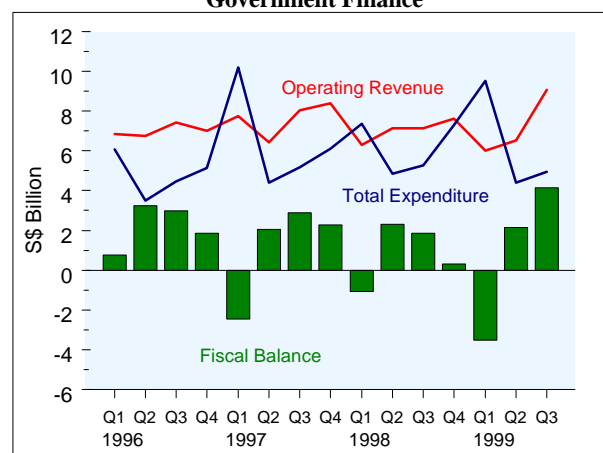
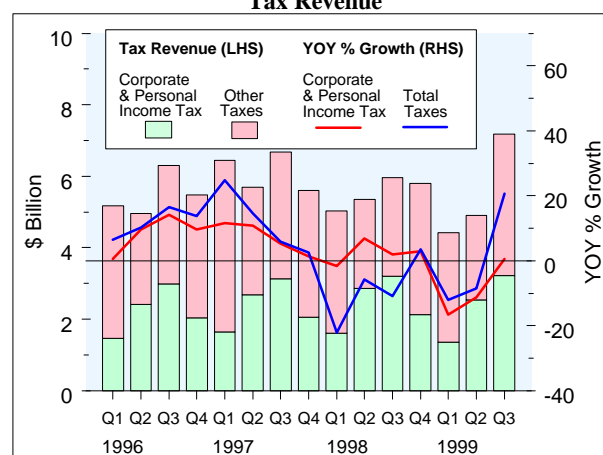


Chart 6.2  
Tax Revenue



The pick up in the number of transactions, as well as the increase in property prices, has contributed to larger revenues from stamp duty. Moreover, some of the deferred payment of duty on property, which was implemented as part of the off-budget measures of Jun 98, could have been received as Temporary Occupation Permits were issued for some residential projects.

With the return of consumer confidence in the economy, car sales have picked up and this has in turn translated into larger collections from road tax and Additional Registration Fees (ARF). Tax collection on motor-vehicles rose to \$356 million in Q3 from \$257 million in Q2. Similarly, non-tax revenue collection jumped to \$1.9 billion in Q3, the bulk of which came from licences and permits such as Certificates of Entitlement (COEs).

On the other hand, revenue from asset taxes fell by 20% reflecting the impact from an overall 55% tax rebate on commercial and industrial property taxes.

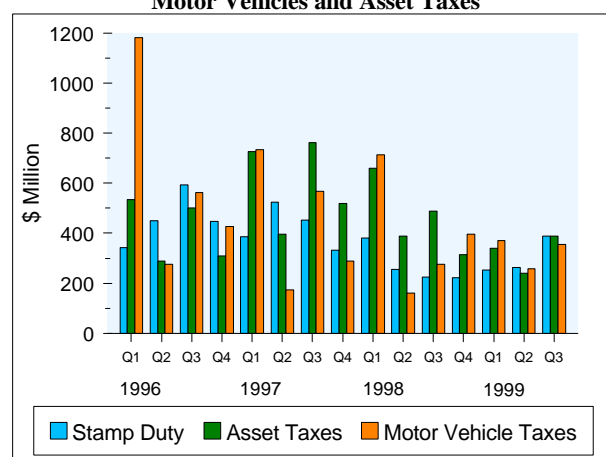
### 6.3 Total Expenditure

Total government expenditure contracted by 6.2% in Q3 to \$4.9 billion, as both operating and development expenditure decreased. (See Chart 6.4.) Operating expenditure saw a marginal fall of 0.7% to \$2.9 billion, compared to a decline of 13% in Q2. The decrease in spending on healthcare, national development and trade were mostly offset by the increase in spending in areas such as education. The latter would have been partly due the increase in number of teaching scholarships awarded this year and the larger number of teachers recruited.

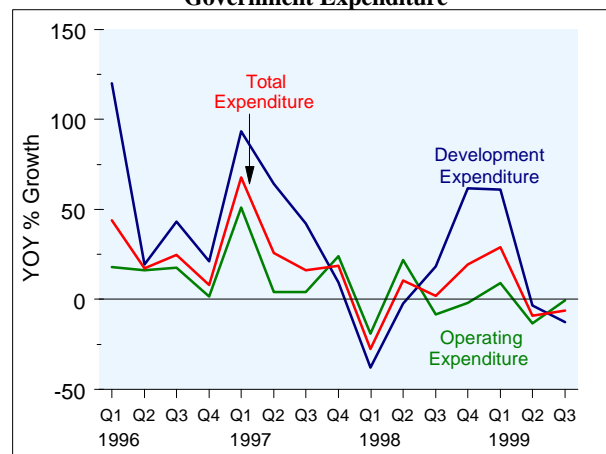
Development expenditure recorded a relatively sharper contraction of 13%, falling to \$2.1 billion in Q3. Spending on economic services, such as R&D, communication, and trade and industry declined by more than half year-on-year, partly reflecting the significant increase in spending the year before. Following the off-budget announcements in Jun 98, development expenditure had increased more rapidly as projects were pushed forward resulting in much higher expenditure in 1998. Nonetheless, spending on infrastructure such as phase 3 of the Jurong Island reclamation project, development of incineration plants and sewerage projects, and IT investment in schools has continued to be strong.

*Domestic Economy Division*

**Chart 6.3**  
Revenue from Stamp Duties,  
Motor Vehicles and Asset Taxes



**Chart 6.4**  
Government Expenditure



# 7 Balance of Payments

## 7.1 Overall Balance

Singapore's overall balance of payments recorded a marginal deficit of \$6.0 million in Q3 99, following a surplus of \$4.8 billion in Q2. The smaller outflow through the capital and financial account, coupled with a larger negative balancing item, more than offset the surplus from the current account. (See Chart 7.1.)

## 7.2 Current Account

The current account surplus shrank to \$6.9 billion in Q3, compared with \$8.3 billion in the previous quarter, reflecting smaller surpluses in the goods and income accounts. (See Chart 7.2.) Sustained recovery in demand from Asia and the global electronics market boosted goods exports by about \$2 billion, but this was offset by a corresponding increase of more than \$3 billion in payments for imported goods. Hence, the goods surplus shrank to \$3.6 billion in Q3, compared with \$4.9 billion in Q2. Declines from both private and public sources of income accounted for the fall in the overall income balance to \$1.3 billion, from \$1.7 billion in the previous quarter.

The services account balance, on the other hand, improved in Q3, as receipts continued to pick up. There was a decline in the transportation account deficit, from more than \$1 billion in Q2 to \$0.6 billion in Q3, and a reversal in the travel account balance from a deficit of \$153 million to a surplus of \$84 million. (See Chart 7.3.) Receipts from transportation services such as freight and port services continued to rise in tandem with the recent turnaround in trade. Tourist receipts also posted strong growth in Q3, mainly driven by increased tourist arrivals from regional countries – particularly South Korea, Indonesia and Thailand. On the other hand, the surplus on the miscellaneous services account moderated to \$3.2 billion. Receipts from these services declined, but remained close to the high levels seen in Q2 when receipts were boosted by stockbroking services rendered to non-residents following renewed foreign interest in the stock market.

Chart 7.1  
Components of Balance of Payments

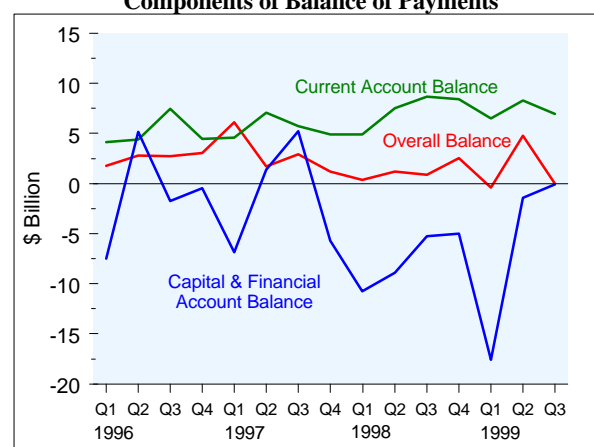


Chart 7.2  
Components of Current Account

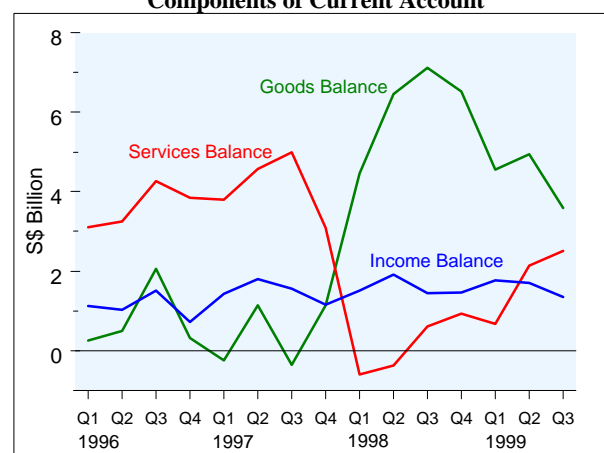
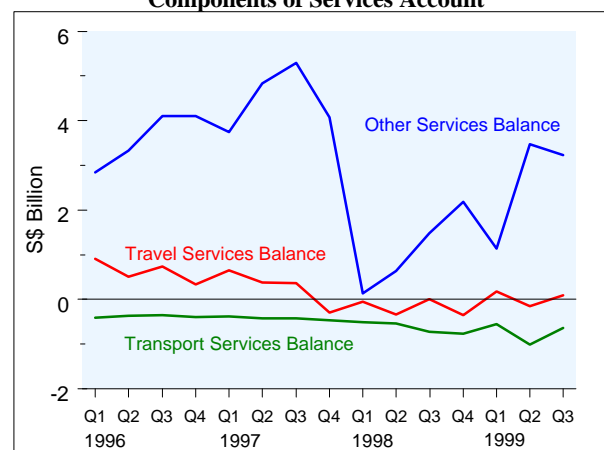


Chart 7.3  
Components of Services Account





### 7.3 Capital and Financial Account

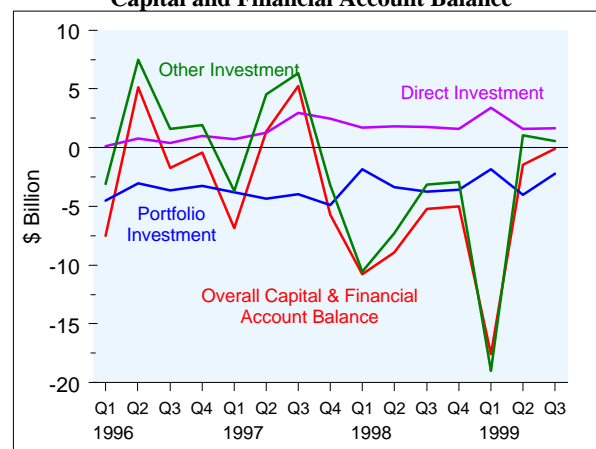
The outflow from the capital and financial account fell significantly to \$96 million in Q3, from \$1.5 billion in Q2. The moderation was mainly due to an almost halving in net outflows in portfolio investment, which was attributable to smaller outflows from the official sector. Net inflow of direct investment was unchanged from that in Q2 at \$1.6 billion. (See Chart 7.4.)

Inflows from 'Other Investments' contracted from \$1.0 billion to \$548 million in Q3. There were substantial bank outflows due to a surge in interbank lending activities, largely to Asian Currency Units (ACUs). However, these outflows continued to be more than offset by inflows to the domestic non-bank sectors, reflecting a withdrawal of residents' deposits placed with ACUs and an increase in miscellaneous funds flow from ACUs to residents in Singapore.

Although there was an overall balance of payments deficit in Q3, Singapore's official foreign reserves (OFR) rose to \$129.6 billion, from \$125.9 billion in Q2. This reflected the difference in valuation methodology. While the balance of payments, which captures actual international transactions, is valued at book cost, the OFR has been translated at market exchange rates prevailing at the end of each month. This valuation of the OFR provides a more accurate measure of the current purchasing power of the OFR. As at Q3, the OFR is sufficient to support 8.8 months of current imports.

*Domestic Economy Division*

**Chart 7.4**  
**Capital and Financial Account Balance**



# 8 Survey of Professional Forecasters

December 1999

## 8.1 Introduction

The MAS Survey of Professional Forecasters is aimed at collating the estimates of Singapore's key macroeconomic indicators produced by professional forecasters based in Singapore. The survey is conducted quarterly in the first week of March, June, September and December following the release of economic data for the previous quarter by the Ministry of Trade and Industry. The main objective of the survey is to establish a regular and consistent benchmark reference on expectations of key economic variables that are relevant for the Singapore economy. The summary results are incorporated in the MAS Economics Department's *Quarterly Bulletin* and posted on the MAS website at the end of these months. These survey results reflect expectations held by respondents and do not represent the views or forecasts of the MAS.

## 8.2 Sample Composition

For this inaugural survey, 30 economists were polled for their views on a dozen key macroeconomic variables of the economy up to two years ahead. The two-year forecast horizon was intended to encourage the private sector economists to take a longer-term view of the economy. However, only 16 economists responded by the cut-off date, due in part to the unavailability of many of the economists during the festive month of December. These 16 economists represented banks, securities houses, tertiary institutions, and research and asset management institutions. Also, not all 16 economists provided forecasts for all variables and at all time horizons. It is hoped that the response to future surveys will improve for a better assessment of the future course of the economy.

## 8.3 Summary of Results

The results of the survey are summarised in Tables 8.1 and 8.2 at the end of this section. Generally the respondents are positive about the outlook for the Singapore, citing the manufacturing sector as the main source of growth. At the same time, most feel that a potential downside risk is a significant slowdown in the US economy resulting from any sharp correction in the asset markets.

## GDP growth expected to remain healthy

The Singapore economy rebounded strongly from 0.6% year-on-year (YOY) in Q1 99 to 6.7% in both Q2 and Q3 to average 4.7% for the first 3 quarters of the year. For Q4 99, the respondents' estimates of real GDP growth range between 6.0% and 9.0%, with a median forecast of about 7.2%. For 1999 as a whole, the respondents expect economic growth to range from 5.0% to 6.1%. The median of 5.3% for 1999 is higher than the official forecast of about 5%. (See Chart 8.1.) Indeed, 7 of the 16 respondents expected full year economic growth to be 5.5% or better. For year 2000, however, there is greater uncertainty in the responses, with forecasts for GDP growth ranging from 3.0% to 7.5%. At 6.0%, however, the median forecast is at the higher end of the official forecast of 4.5-6.5%. In 2001, the economy is expected to strengthen further, with the lowest estimates rising to 4.2% and the highest to 7.8%, although the median forecast is still 6.0%.

The strong GDP growth outlook is consistent with the respondents' positive growth prospects for its key components. Consumption, investment and non-oil domestic exports are forecast to expand faster in the following two years compared with 1999, or sustain the similar strong growth recorded recently.

## Total consumption growth forecast to remain robust

Following the pick-up in growth of total consumption expenditure from 5.1% in Q2 to 8.3% in Q3, the respondents expect it to be sustained at an average of 8.2% in Q4 99, with the median forecast a shade lower at 8.3%. Their median forecast is for total consumption expenditure to grow by 5.9% for 1999 as a whole, and increase to 6.6% in 2000, before moderating slightly to 6.2% in 2001. (See Chart 8.2.) However, reflecting their uncertainty, the range of expectations for the next two years is considerably wide, at 11.4% points and 5.2% points respectively.

Chart 8.1  
Actual and Expectations of Real GDP Growth

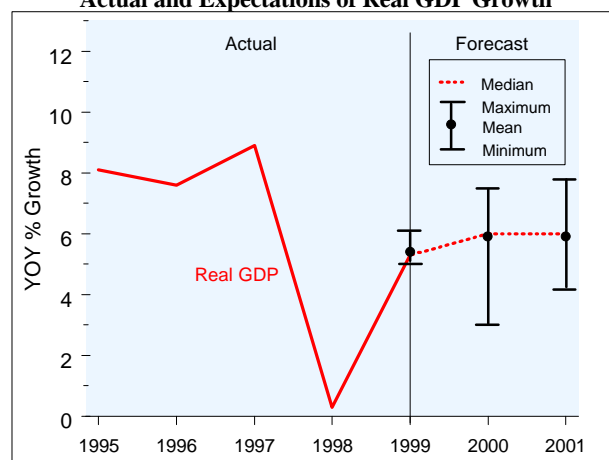
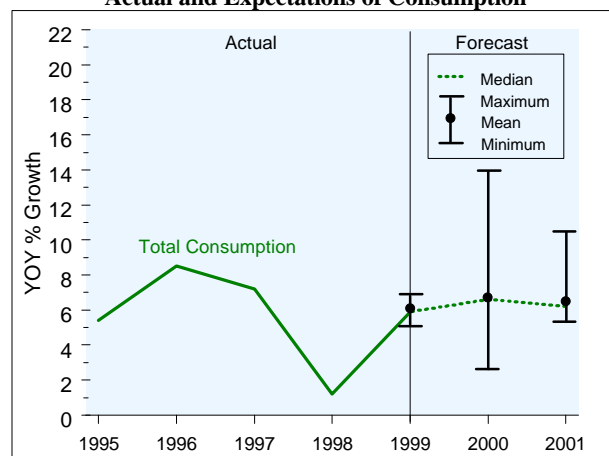


Chart 8.2  
Actual and Expectations of Consumption



### Investment is expected to turnaround strongly

Although the median forecast for investment growth in Q4 99 is 4.2%, a significant improvement from the actual 1.7% recorded in Q3, the full-year forecast for 1999 is a negative 3.6% due to its contraction in H1. However, the respondents expect investment to continue to improve, with growth turning around to register 4.2% and 6.7% in 2000 and 2001 respectively, based on their median forecasts. (See Chart 8.3.)

### Non-oil domestic exports forecast to remain buoyant

After rising from a negative 3.2% in Q1 99 to 9.0% in Q3, growth of non-oil domestic export (NODX) is expected to improve, with the respondents' median forecast at 15.4% for Q4, and 7.9% for 1999 as a whole. More significantly, NODX growth is expected to be sustained in 2000 and 2001, with median forecasts of 8.5% and 7.5% respectively. There is, however, considerable uncertainty in the prospects for NODX as reflected in the wide range of the forecasts of between 2.4% to 12.5% for 2000 and 3.2% to 13.5% for 2001. (See Chart 8.4.)

### Moderation in growth expected in manufacturing

In terms of domestic output, the respondents expect growth of the bellwether manufacturing sector to moderate over the next two years. Their median forecasts are for manufacturing output to grow by 16.0% in Q4 99, for a full-year growth of 13.6%, before moderating to 9.4% for 2000 and further to 7.9% in 2001. (See Chart 8.5.) The moderation in growth expectations would partly reflect the impact of the relocation of some disk-drive plants out of Singapore and partly the high base of comparison in the year-ago period. Nevertheless, the still-strong forecasts point to strength in industries like those of the chemicals cluster, which had contributed significantly to the manufacturing sector in recent years.

Chart 8.3  
Actual and Expectations of Investment

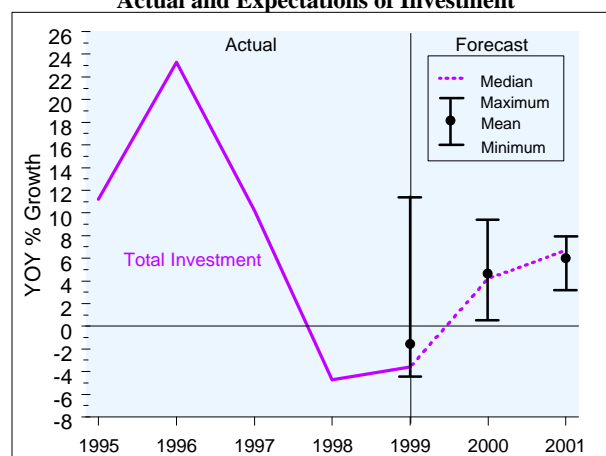


Chart 8.4  
Actual and Expectations of NODX

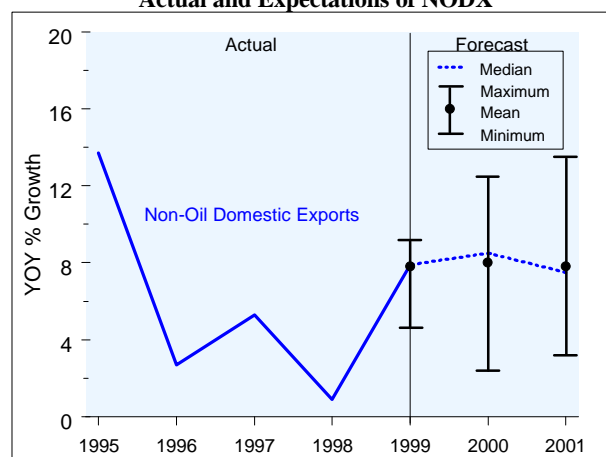
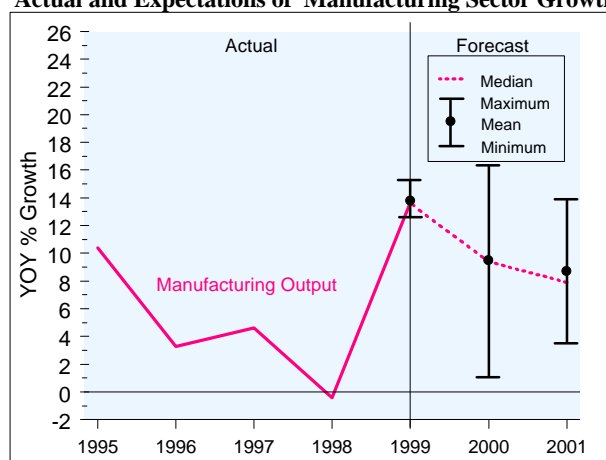


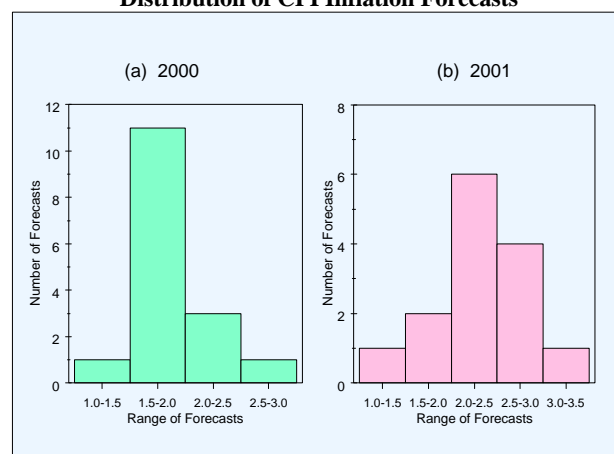
Chart 8.5  
Actual and Expectations of Manufacturing Sector Growth



## Inflation expected to pick up

In line with their expectations of an improvement in GDP growth, the respondents also project higher CPI inflation for the next 2 years. From an estimated 0.5% for 1999, they expect CPI inflation to average 1.9% for year 2000, with a standard deviation of 0.3%, and a higher 2.2% for 2001, with a standard deviation of 0.4%. These forecasts are broadly higher than MAS' forecasts of between 1-2% over the next two years. Chart 8.6 shows the distribution of the respondents' forecasts for 2000 and 2001.

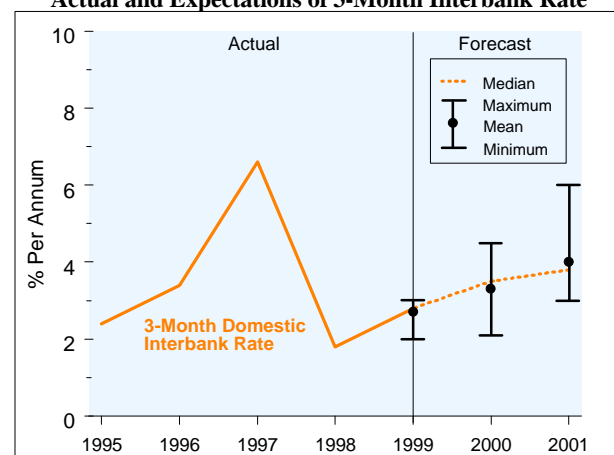
**Chart 8.6**  
Distribution of CPI Inflation Forecasts



## No substantial rise expected in the 3-month domestic interbank rate

In line with rising external interest rates, the 3-month domestic interbank interest rate has trended up during 1999. The respondents expect the benchmark interest rate to close the year at 2.8%, based on their median forecasts with a range of 2.0-3.0%. However, they do not expect domestic interest rates to rise significantly in the next two years. Their median forecasts are for the 3-month domestic interbank interest rate to rise to 3.5% by end-2000 and 3.8% by end-2001. (See Chart 8.7.)

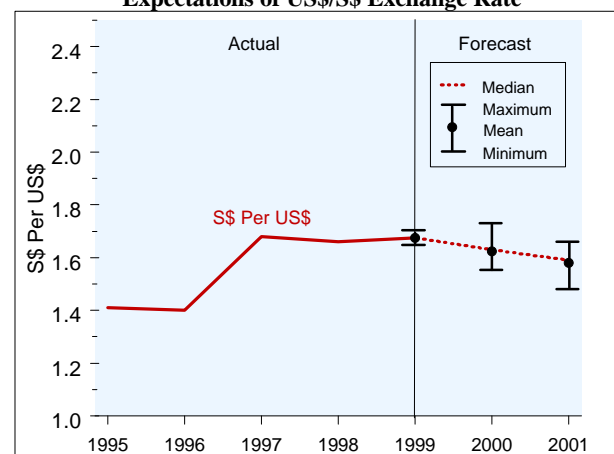
**Chart 8.7**  
Actual and Expectations of 3-Month Interbank Rate



## S\$ forecast to strengthen against the US\$

In the next two years, respondents generally expect the S\$ to strengthen against the US\$. They project the US\$/S\$ exchange rate at US\$/S\$1.675 by end of 1999, and to appreciate to US\$/S\$1.63 by end-2000 and US\$/S\$1.59 by end-2001. (See Chart 8.8.)

**Chart 8.8**  
Expectations of US\$/S\$ Exchange Rate



**Table 8.1**  
**Key Macroeconomics Indicators, 1998-2001**  
*Mean of Forecasts*

<b>Economic Variables</b>	<b>1998 (Actual)</b>	<b>1999f Q4</b>	<b>1999f</b>	<b>2000f</b>	<b>2001f</b>
Gross Domestic Product	0.3	7.3	5.4	5.9	5.9
Total Consumption	1.2	8.2	6.1	6.7	6.5
Total Investment	-4.7	4.9	-1.6	4.6	6.0
Industrial Production	-0.4	17.4	13.8	9.5	8.7
Non-oil Domestic Exports	0.9	15.3	7.8	8.0	7.8
Consumer Price Index	-0.3	1.5	0.5	1.9	2.2
3-month Interbank Rate	1.75	2.7	2.7	3.3	4.0
Exchange Rate (US\$/S\$)	1.66	1.67	1.67	1.62	1.58

**Table 8.2**  
**Key Macroeconomics Indicators, 1998-2001**  
*Median of Forecasts*

<b>Economic Variables</b>	<b>1998 (Actual)</b>	<b>1999f Q4</b>	<b>1999f</b>	<b>2000f</b>	<b>2001f</b>
Gross Domestic Product	0.3	7.2	5.3	6.0	6.0
Total Consumption	1.2	8.3	5.9	6.6	6.2
Total Investment	-4.7	4.2	-3.6	4.2	6.7
Industrial Production	-0.4	16.0	13.6	9.4	7.9
Non-oil Domestic Exports	0.9	15.4	7.9	8.5	7.5
Consumer Price Index	-0.3	1.5	0.5	1.8	2.2
3-month Interbank Rate	1.75	2.8	2.8	3.5	3.8
Exchange Rate (US\$/S\$)	1.66	1.68	1.68	1.63	1.59

*Compiled by Domestic Economy Division*



## Statistical Appendices

**Table 1:** Real GDP Growth by Sector

**Table 2:** Real GDP Growth by Expenditure

**Table 3:** Consumer Price Index

**Table 4:** External Trade

**Table 5:** Non-Oil Domestic Exports by Selected Countries

**Table 6:** Labour Market

**Table 7:** Monetary

**Table 8:** Fiscal

**Table 9:** Balance of Payments – Current Account

**Table 10:** Balance of Payments – Capital & Financial Accounts

**Table 11:** Exchange Rates

**TABLE 1 : REAL GDP GROWTH by sectors**

Period	Total	Manu- facturing	Financial & Business Services				Con- struction	Commerce			Transport & Comm.	Total	Manu- facturing	Financial & Business Services				Con- struction	Commerce			Transport & Comm.
			Total	Financial Services	Business Services	Total		Wholesale & Retail	Hotels & Rest.	Total				Financial Services	Business Services	Total	Wholesale & Retail		Hotels & Rest.			
																				Total	Wholesale & Retail	
Year-on-Year % Change											Seasonally-adjusted Quarter-on-Quarter % Change											
1992	6.6	2.3	8.7	8.7	8.8	22.3	3.8	2.4	9.5	5.7	6.6	2.3	8.7	8.7	8.8	22.3	3.8	2.4	9.5	5.7		
1993	12.7	9.6	15.4	25.4	6.6	9.0	19.7	23.2	6.0	10.6	12.7	9.6	15.4	25.4	6.6	9.0	19.7	23.2	6.0	10.6		
1994	11.4	12.8	11.6	11.7	11.5	16.6	12.1	13.7	5.0	10.1	11.4	12.8	11.6	11.7	11.5	16.6	12.1	13.7	5.0	10.1		
1995	8.1	10.0	5.7	3.6	7.9	8.8	8.9	9.6	5.3	10.6	8.1	10.0	5.7	3.6	7.9	8.8	8.9	9.6	5.3	10.6		
1996	7.6	2.9	8.2	7.5	9.0	22.0	6.5	6.1	8.5	8.5	7.6	2.9	8.2	7.5	9.0	22.0	6.5	6.1	8.5	8.5		
1997	8.9	4.5	15.9	23.4	8.5	15.3	5.7	6.4	1.9	9.2	8.9	4.5	15.9	23.4	8.5	15.3	5.7	6.4	1.9	9.2		
1998	0.3	-0.4	-2.3	-8.8	4.9	4.0	-4.0	-4.1	-3.3	5.3	0.3	-0.4	-2.3	-8.8	4.9	4.0	-4.0	-4.1	-3.3	5.3		
1995 Q1	5.8	8.1	1.0	-2.5	4.8	2.3	7.2	8.3	2.0	10.0	-1.3	9.6	-10.4	-19.8	0.1	-23.1	2.0	1.7	3.7	5.6		
Q2	8.7	7.9	9.1	9.6	8.7	12.2	10.0	11.1	4.6	12.0	14.7	10.4	18.7	21.9	15.6	55.1	14.5	16.1	6.3	13.6		
Q3	9.2	12.3	7.5	6.1	9.0	7.6	9.7	10.3	7.1	11.0	18.0	33.8	16.7	20.5	12.9	12.1	11.8	9.8	22.4	12.0		
Q4	8.5	11.4	5.3	1.3	9.1	12.7	8.5	8.7	7.3	9.4	3.5	-5.9	-0.8	-9.2	8.2	23.3	5.4	7.0	-2.7	7.2		
1996 Q1	12.1	12.9	9.7	8.2	11.1	31.0	10.9	10.8	11.5	10.7	13.4	18.0	5.6	3.0	8.1	38.1	13.5	11.7	23.2	10.0		
Q2	8.4	5.9	7.9	5.9	9.9	22.2	6.9	6.3	10.3	9.2	-0.5	-15.7	10.8	10.6	10.9	16.4	-2.7	-3.2	-0.2	6.6		
Q3	3.8	-4.2	5.4	3.5	7.4	19.8	2.3	2.0	3.8	6.3	-0.7	-9.1	6.0	10.0	2.2	2.2	-6.1	-6.8	-2.2	1.7		
Q4	6.5	-0.8	10.2	12.9	7.7	16.8	6.2	5.7	8.7	8.2	15.2	5.8	20.3	31.7	9.8	15.5	22.4	24.0	15.1	15.7		
1997 Q1	5.9	-5.2	17.6	27.3	8.3	10.2	2.7	2.7	2.3	8.6	9.9	0.4	35.5	64.1	10.4	7.5	-0.1	0.3	-1.7	10.8		
Q2	9.9	4.4	18.1	29.2	7.3	13.0	7.7	8.5	3.6	9.8	15.5	22.4	12.0	16.2	7.4	27.7	16.7	19.5	3.0	10.6		
Q3	11.8	9.8	17.4	24.7	10.0	19.8	9.8	11.1	3.5	10.5	6.9	12.5	3.3	-4.1	12.5	29.2	1.6	2.0	-0.5	5.5		
Q4	7.9	8.6	10.4	12.6	8.3	17.4	3.0	3.9	-1.5	8.1	0.2	-0.5	-4.5	-11.1	3.2	7.9	-5.1	-4.7	-7.7	5.9		
1998 Q1	4.4	6.6	-0.2	-6.4	6.9	15.7	0.9	1.9	-4.3	7.0	-3.4	-5.4	-10.1	-22.5	4.7	1.1	-7.7	-7.1	-10.8	6.0		
Q2	0.1	-0.2	-4.4	-13.0	5.6	9.0	-4.5	-4.9	-2.5	5.7	-3.2	-6.5	-6.0	-14.0	2.4	-0.5	-6.8	-9.6	9.6	5.2		
Q3	-2.1	-4.2	-4.7	-11.8	3.4	-0.3	-5.9	-6.1	-5.1	4.0	-1.7	-3.8	2.8	2.0	3.6	-8.8	-4.1	-3.0	-9.3	-0.8		
Q4	-1.1	-2.6	0.2	-3.2	3.6	-5.7	-6.2	-7.1	-1.4	4.5	4.2	5.0	16.0	30.2	3.7	-13.6	-6.2	-8.4	6.0	7.8		
1999 Q1	0.6	6.7	-4.0	-8.6	0.6	-9.1	-2.1	-2.3	-1.0	5.7	3.7	37.4	-24.2	-39.0	-6.8	-12.8	9.6	13.5	-8.6	11.0		
Q2	6.7	14.5	6.2	12.9	-0.2	-13.3	5.9	6.6	2.1	6.4	21.4	23.7	40.0	99.4	-1.0	-18.0	27.4	28.2	23.4	7.9		
Q3	6.7	16.7	2.7	4.3	1.2	-15.6	8.4	9.3	4.1	7.6	-0.9	4.2	-9.7	-25.2	9.5	-17.7	5.7	7.0	-1.3	4.0		

Source: Singapore Department of Statistics

**TABLE 2 : REAL GDP GROWTH by expenditure**

Period	Total Demand	Domestic Demand							External Demand	Year-on-Year % Change
		Total	Consumption			Gross Fixed Capital Formation				
			Total	Private	Public	Total	Private	Public		
1992	7.0	6.8	4.8	5.8	0.4	11.8	14.5	1.9	7.1	
1993	16.3	14.4	12.4	11.9	14.7	10.3	10.9	7.6	17.2	
1994	15.3	4.0	5.8	7.5	-1.7	9.6	6.5	22.8	20.5	
1995	12.6	9.0	5.4	4.1	12.3	11.2	13.9	1.4	14.0	
1996	8.8	12.1	8.5	6.2	19.1	23.3	27.7	5.4	7.6	
1997	7.9	10.2	7.2	6.7	9.2	10.2	7.6	23.0	7.0	
1998	-5.0	-5.1	1.2	-0.6	8.4	-4.7	-6.8	4.3	-4.9	
1995 Q1	16.8	-2.0	1.9	0.8	6.2	3.9	5.5	-2.0	26.2	
Q2	9.9	10.2	6.1	6.0	6.3	9.3	8.7	11.5	9.8	
Q3	11.2	11.7	5.4	4.3	10.8	9.8	10.7	6.9	11.0	
Q4	13.0	16.4	8.5	5.1	29.0	20.6	29.2	-9.1	11.8	
1996 Q1	16.9	22.8	11.2	6.7	27.3	29.6	32.1	19.6	14.6	
Q2	9.7	12.5	6.1	5.4	10.0	31.3	41.2	-6.8	8.7	
Q3	4.4	6.5	10.7	6.4	31.5	15.2	20.6	-4.2	3.7	
Q4	5.4	7.9	5.7	6.2	3.4	18.9	19.7	15.2	4.4	
1997 Q1	2.3	5.2	6.9	6.8	7.1	6.1	5.4	9.4	1.1	
Q2	9.0	7.5	9.6	7.7	20.6	4.0	-1.1	33.6	9.6	
Q3	12.4	18.2	6.1	8.9	-4.9	23.8	21.8	32.7	10.2	
Q4	7.8	10.3	6.5	3.6	20.8	7.9	5.9	18.2	6.8	
1998 Q1	4.7	9.5	5.7	3.6	11.9	15.8	16.1	14.7	2.6	
Q2	-5.5	-3.0	2.3	1.0	9.1	-2.4	-4.4	6.2	-6.5	
Q3	-8.0	-10.8	-3.4	-4.3	0.6	-10.6	-12.2	-3.9	-6.8	
Q4	-10.1	-14.9	-0.1	-2.6	10.5	-18.0	-22.4	2.4	-8.1	
1999 Q1	-4.9	-7.7	3.2	-0.7	14.3	-16.5	-22.8	11.1	-3.6	
Q2	6.8	6.0	5.1	5.8	1.5	-3.7	-4.8	0.7	7.1	
Q3	9.4	13.4	8.3	9.1	5.1	1.7	3.2	-4.2	7.9	

Source: Singapore Department of Statistics

**TABLE 3 : CONSUMER PRICE INDEX**

Period	All Items	Food	Housing	Clothing	Transport & Comms.	Education & Stationery	Health	Misc- ellaneous	All Items	Food	Housing	Clothing	Transport & Comms.	Education & Stationery	Health	Misc- ellaneous
1992	98.3	99.5	97.4	99.2	98.5	97.3	97.4	96.6	2.3	1.3	2.1	2.2	2.9	4.7	2.9	3.2
1993	100.5	100.3	100.5	100.3	101.0	100.5	101.0	100.6	2.3	0.8	3.2	1.2	2.6	3.3	3.7	4.2
1994	103.7	103.9	101.8	102.6	107.8	103.0	104.2	102.5	3.1	3.6	1.4	2.2	6.7	2.5	3.1	1.9
1995	105.4	106.2	102.6	104.1	108.5	107.4	105.8	104.8	1.7	2.3	0.7	1.5	0.6	4.2	1.6	2.3
1996	106.9	108.5	103.1	104.6	108.9	110.6	108.3	106.8	1.4	2.1	0.5	0.5	0.4	3.0	2.3	1.8
1997	109.0	110.7	105.5	105.3	113.1	112.3	112.2	106.9	2.0	2.0	2.3	0.7	3.9	1.5	3.7	0.2
1998	108.8	110.9	107.5	103.8	106.7	116.3	117.3	106.2	-0.3	0.2	2.0	-1.5	-5.6	3.6	4.5	-0.7
1995 Q1	104.9	106.1	102.3	104.0	107.4	106.0	105.3	103.6	2.5	3.6	1.1	2.7	2.5	4.2	2.0	1.5
Q2	105.5	105.8	102.7	104.5	109.1	106.8	105.4	105.5	2.1	2.1	0.7	2.0	2.6	3.8	1.3	3.0
Q3	105.6	106.6	102.7	103.6	108.6	108.2	106.1	104.7	1.4	2.1	0.7	0.7	-0.6	4.4	1.6	2.1
Q4	105.7	106.3	102.6	104.2	108.9	108.5	106.5	105.6	0.9	1.4	0.4	0.5	-1.8	4.5	1.5	2.5
1996 Q1	106.3	107.4	102.8	105.0	108.3	109.8	107.3	106.2	1.3	1.2	0.5	0.9	0.8	3.6	1.8	2.6
Q2	106.7	108.1	103.0	105.4	108.7	109.9	107.9	106.8	1.2	2.2	0.3	0.8	-0.3	2.9	2.4	1.2
Q3	107.1	109.1	103.1	103.8	109.0	111.4	108.5	106.8	1.4	2.3	0.4	0.2	0.4	2.9	2.3	2.0
Q4	107.4	109.3	103.4	104.2	109.6	111.4	109.3	107.3	1.6	2.8	0.8	0.0	0.6	2.6	2.7	1.6
1997 Q1	108.1	110.4	103.9	105.7	110.2	111.6	109.5	107.1	1.7	2.8	1.0	0.7	1.7	1.6	2.1	0.8
Q2	108.6	110.3	104.5	105.1	112.6	111.6	111.5	107.2	1.8	2.0	1.5	-0.3	3.6	1.6	3.3	0.5
Q3	109.6	111.0	106.1	104.9	115.3	112.9	112.8	106.3	2.3	1.7	2.9	1.0	5.8	1.4	3.9	-0.5
Q4	109.9	111.0	107.3	105.6	114.3	113.0	115.1	107.1	2.3	1.5	3.7	1.3	4.4	1.5	5.3	-0.2
1998 Q1	109.2	111.4	107.7	104.7	108.5	115.1	116.3	106.4	1.1	0.9	3.7	-1.0	-1.5	3.2	6.2	-0.7
Q2	109.0	111.0	107.2	104.6	108.2	115.9	116.6	106.3	0.3	0.7	2.6	-0.5	-3.9	3.8	4.5	-0.9
Q3	108.6	110.7	107.7	102.8	106.4	117.3	117.9	105.8	-0.8	-0.3	1.5	-2.0	-7.7	3.9	4.5	-0.5
Q4	108.2	110.6	107.4	103.0	103.8	117.0	118.5	106.3	-1.6	-0.3	0.1	-2.4	-9.2	3.5	2.9	-0.8
1999 Q1	108.6	111.4	106.9	104.7	103.9	119.1	118.5	106.5	-0.6	-0.1	-0.8	0.1	-4.3	3.5	1.9	0.1
Q2	109.1	112.1	106.2	104.2	105.4	121.2	118.3	106.9	0.1	1.0	-0.9	-0.4	-2.5	4.6	1.5	0.6
Q3	109.6	112.2	106.6	104.4	107.6	122.5	118.4	107.0	0.9	1.4	-1.0	1.6	1.1	4.4	0.4	1.2

Source: Singapore Department of Statistics

**TABLE 4 : EXTERNAL TRADE**

Period	Total Trade	Exports	Domestic Exports						Re-exports	Imports	Exports	Year-on-Year % Change					
			Total	Oil	Non-oil			Total				Oil	Non-oil	Re-exports	Imports		
					Total	Electronics	Non-electronics										
																Total	Oil
At Current Prices										At 1990 Prices							
1992	2.2	1.4	0.5	-22.1	8.4	11.9	3.3	3.3	2.9	7.2	7.8	-11.0	15.0	5.9	6.5		
1993	16.4	15.6	13.7	8.6	14.9	21.4	4.9	19.1	17.1	17.6	16.7	15.5	17.0	19.5	19.0		
1994	18.1	23.3	17.4	-3.9	22.5	30.3	8.4	33.4	13.7	27.6	24.0	10.9	27.8	34.5	14.7		
1995	13.2	13.7	11.2	-1.9	13.7	16.3	8.1	17.4	12.7	16.1	14.3	-0.2	18.0	19.1	13.8		
1996	5.1	5.2	5.2	20.6	2.7	4.3	-1.0	5.3	5.0	7.3	6.4	4.1	6.9	8.8	7.1		
1997	5.7	5.3	3.8	-3.9	5.3	3.4	9.8	7.4	6.2	6.8	4.9	-1.2	6.2	9.9	8.1		
1998	-7.5	-1.0	-1.5	-15.3	0.9	-0.5	4.2	-0.3	-13.6	-0.7	0.2	5.6	-0.9	-2.0	-12.5		
1995 Q1	19.1	25.4	20.7	8.9	23.1	26.5	16.1	32.9	13.5	28.0	24.3	7.9	29.0	35.1	13.6		
Q2	8.6	7.9	4.0	-5.3	5.8	7.4	2.3	14.1	9.3	9.9	7.1	-5.6	10.3	15.2	9.5		
Q3	11.9	11.3	9.0	-10.4	12.7	13.7	10.5	14.6	12.5	13.9	12.6	-4.7	16.9	16.2	14.6		
Q4	14.2	12.7	13.1	1.2	15.1	19.5	4.9	12.2	15.7	15.0	15.5	3.0	18.3	14.0	17.2		
1996 Q1	15.8	14.1	14.2	22.5	12.7	17.7	1.4	14.0	17.4	15.6	14.9	9.7	16.2	16.7	19.1		
Q2	6.1	6.4	7.7	22.6	5.2	7.2	0.7	4.5	5.9	8.8	9.4	10.6	9.1	7.8	8.4		
Q3	-1.2	0.1	0.0	15.5	-2.4	-1.0	-5.5	0.4	-2.4	2.2	1.1	-0.7	1.5	4.1	-0.4		
Q4	1.4	1.7	0.4	21.7	-2.8	-3.9	0.0	3.5	1.3	3.9	1.6	-3.1	2.5	7.9	3.2		
1997 Q1	-2.5	-2.8	-4.1	-4.3	-4.1	-6.7	2.7	-0.8	-2.2	-0.3	-2.4	-10.5	-0.6	3.3	0.4		
Q2	5.3	5.9	3.8	1.0	4.4	4.2	5.0	9.1	4.6	8.8	5.9	3.6	6.5	13.9	8.4		
Q3	11.7	8.7	7.5	-2.5	9.3	8.0	12.6	10.3	14.6	10.5	9.3	3.3	10.6	12.4	16.3		
Q4	8.4	9.1	7.9	-9.6	11.2	8.2	18.5	10.8	7.7	7.8	6.5	-1.0	7.9	9.9	7.5		
1998 Q1	4.1	9.7	6.7	-14.1	10.7	8.5	15.9	14.0	-1.1	7.5	5.7	7.8	5.2	10.5	-0.9		
Q2	-7.7	-1.3	-3.3	-19.5	-0.2	-2.1	4.3	1.4	-13.8	-2.1	-2.5	-4.8	-1.9	-1.4	-14.1		
Q3	-9.3	-1.1	-0.9	-15.4	1.4	-0.6	6.0	-1.3	-16.9	-1.9	-1.2	1.0	-1.7	-2.9	-15.8		
Q4	-15.5	-9.7	-7.4	-11.8	-6.7	-6.6	-7.0	-12.8	-21.0	-5.3	-0.7	20.9	-4.4	-12.4	-18.1		
1999 Q1	-9.4	-9.0	-3.8	-7.9	-3.2	-4.8	0.2	-15.7	-9.9	-4.8	1.4	4.6	0.7	-14.3	-7.5		
Q2	8.0	5.2	9.8	6.9	10.3	5.4	21.2	-1.0	11.2	5.1	8.2	-2.2	10.4	0.1	10.3		
Q3	10.4	5.2	9.5	13.7	9.0	5.1	17.3	-0.6	16.0	4.7	6.5	-20.0	11.6	1.9	13.8		

Source: Singapore Trade Development Board

**TABLE 5 : NON-OIL DOMESTIC EXPORTS by selected country**

Period	All Countries	ASEAN				NIEs				USA	Japan	EU 15	Others
		Total	of which:			Total	Hong Kong	S. Korea	Taiwan				
			Malaysia	Thailand	Philippines								
Year-on-Year % Change													
1995	13.7	7.6	1.7	24.0	23.8	14.8	7.8	30.2	19.5	11.9	36.1	14.2	12.4
1996	2.7	-0.6	-3.4	-0.4	21.0	-1.2	-4.8	16.6	-5.8	5.8	5.2	2.3	3.7
1997	5.3	8.7	4.9	1.3	40.3	9.2	9.7	-1.7	16.6	4.6	-15.4	12.0	3.3
1998	0.9	-9.6	-9.7	-9.1	-10.2	-10.4	-9.3	-22.2	-4.6	3.1	-8.7	11.1	16.3
1995 Q1	23.1	40.8	42.4	31.4	59.1	32.7	53.0	35.8	4.2	10.9	23.5	20.3	22.5
Q2	5.8	-7.3	-12.8	17.5	-19.9	13.6	6.8	22.7	22.4	8.1	15.7	8.8	7.1
Q3	12.7	5.6	-2.5	30.2	37.5	7.4	-5.0	24.1	24.0	12.3	51.1	9.3	14.2
Q4	15.1	4.6	-2.3	18.6	43.7	9.9	-6.1	38.8	26.6	15.9	54.7	18.5	7.3
1996 Q1	12.7	6.0	1.9	14.1	18.2	9.2	-1.6	18.9	23.5	21.8	33.3	10.9	-4.8
Q2	5.2	0.1	-5.5	1.3	46.8	-0.5	-7.5	28.7	-5.7	9.0	21.9	1.0	5.4
Q3	-2.4	-6.6	-8.0	-9.5	10.9	-4.7	-4.6	17.7	-17.7	1.5	-13.2	-0.4	4.5
Q4	-2.8	-0.6	-1.0	-5.1	13.9	-7.6	-5.3	2.7	-17.3	-5.2	-10.6	-1.1	9.3
1997 Q1	-4.1	5.1	2.7	-4.8	31.6	-7.8	-8.9	1.0	-11.8	-10.6	-21.6	4.9	3.1
Q2	4.4	10.8	9.1	2.8	30.5	7.6	11.1	-10.9	17.0	3.2	-20.4	11.3	4.6
Q3	9.3	11.0	4.5	11.7	46.4	18.9	20.0	1.6	31.0	10.7	-8.1	12.6	1.3
Q4	11.2	7.8	3.3	-4.1	50.6	19.1	16.9	2.7	35.1	14.8	-10.0	18.4	4.1
1998 Q1	10.7	-1.3	-6.1	4.6	22.1	7.1	11.8	-26.9	24.9	18.0	3.8	12.7	21.2
Q2	-0.2	-14.7	-17.0	-8.3	-17.9	-10.9	-3.0	-25.0	-15.4	6.2	-13.0	10.8	15.3
Q3	1.4	-7.8	-3.2	-17.5	-14.4	-13.7	-14.2	-25.4	-5.5	-0.8	-12.5	19.9	21.4
Q4	-6.7	-13.9	-12.1	-14.4	-22.0	-20.8	-27.3	-11.9	-16.0	-7.3	-12.4	3.1	8.5
1999 Q1	-3.2	-8.6	-7.1	-5.7	-14.3	-7.6	-21.3	43.3	-10.0	-6.8	-0.9	6.4	0.1
Q2	10.3	9.9	12.5	11.4	15.3	12.2	-14.8	50.2	44.6	2.3	39.0	10.2	13.0
Q3	9.0	10.5	6.0	30.9	14.8	25.6	11.8	44.7	37.4	3.2	27.3	6.2	1.9
% Share of All Countries													
1995	100.0	20.1	13.7	4.2	1.3	13.0	6.7	2.4	3.9	28.4	9.2	18.2	11.1
1996	100.0	19.5	12.9	4.0	1.6	12.5	6.2	2.7	3.6	29.2	9.5	18.2	11.2
1997	100.0	20.1	12.8	3.9	2.1	13.0	6.5	2.5	4.0	29.0	7.6	19.3	10.9
1998	100.0	18.0	11.5	3.5	1.9	11.5	5.8	2.0	3.7	29.7	6.9	21.3	12.6

Source: Singapore Trade Development Board



**TABLE 6 : LABOUR MARKET**

Period	Average Monthly Earnings	Labour Productivity								Unit Labour Cost		Changes in Employment					
		All Sectors	Manu- facturing	Con- struction	Wholesale & Retail Trade	Hotel & Rest- aurants	Transport & Comms.	Financial	Business	Overall Economy	Manu- facturing	All Sectors	Manu- facturing	Con- struction	Commerce	Transport & Comms.	Financial & Business
		Year-on-Year % Change										Thousand					
1992	7.5	3.2	2.8	14.5	-0.8	6.0	1.7	5.2	3.2	3.4	6.4	40.3	-7.9	11.3	9.1	6.2	8.3
1993	6.3	9.2	11.6	-4.9	18.6	6.4	6.1	19.0	1.6	-0.9	-3.1	70.8	-3.1	26.4	14.9	4.8	12.1
1994	8.8	6.6	11.3	5.0	10.0	0.8	8.1	3.2	4.3	2.5	-3.1	72.1	11.6	13.1	13.4	2.6	16.0
1995	6.4	3.0	6.5	-3.5	6.2	3.9	6.1	-3.3	-0.9	2.6	-1.2	109.0	12.5	40.5	14.1	9.4	18.0
1996	5.8	1.3	2.9	-2.9	3.2	5.3	3.8	1.4	-0.1	2.4	2.4	102.7	-7.8	52.9	8.8	6.3	18.4
1997	5.7	2.6	5.5	-4.0	3.9	-2.5	5.1	13.7	-0.3	0.6	0.9	120.3	3.7	45.8	12.6	6.2	26.1
1998	2.8	-2.5	1.6	-3.3	-3.3	-4.9	3.5	-11.1	-3.0	2.7	-1.1	-23.4	-27.6	-4.7	-13.4	-0.5	6.5
1995 Q1	7.1	1.4	4.7	-5.1	5.6	-0.2	7.8	-8.3	-3.4	6.3	1.2	14.2	7.1	2.5	-1.7	1.3	4.3
Q2	6.7	4.2	4.4	1.8	7.7	4.3	8.7	2.3	0.0	3.0	1.5	27.1	4.1	7.2	3.2	2.7	6.8
Q3	7.1	3.9	8.7	-5.1	6.8	6.4	5.3	-1.6	-0.1	2.1	-4.0	20.4	-0.9	12.4	-0.7	3.1	2.0
Q4	4.9	2.2	7.9	-5.7	4.7	4.9	2.8	-5.3	-0.1	-0.3	-3.7	47.3	2.2	18.4	13.3	2.3	4.9
1996 Q1	6.9	5.3	10.3	5.2	7.1	8.4	4.8	1.7	1.9	-1.1	-3.8	17.5	1.1	12.0	-3.0	0.4	3.3
Q2	5.9	1.9	5.6	-4.1	3.1	6.9	3.9	0.5	0.6	2.2	1.0	23.3	-4.7	12.5	1.2	1.9	8.0
Q3	5.0	-2.3	-3.4	-5.3	-0.9	0.8	2.4	-2.0	-1.8	5.9	9.4	22.1	-3.2	12.6	0.4	1.8	2.5
Q4	5.5	0.7	0.9	-5.9	3.5	5.5	4.1	5.8	-1.1	2.9	4.3	39.8	-1.0	15.8	10.2	2.2	4.6
1997 Q1	5.1	0.4	-3.2	-9.4	0.5	-1.1	4.4	19.3	0.5	3.1	9.5	16.2	-0.9	10.7	-1.7	0.5	2.9
Q2	6.0	3.7	6.1	-6.3	5.9	-1.1	5.5	19.4	-1.0	-0.2	0.4	37.2	-1.2	12.5	5.0	2.1	11.2
Q3	5.2	5.2	10.5	-0.6	8.3	-1.3	6.3	14.1	1.0	-2.0	-4.2	31.1	2.4	16.2	-1.4	2.2	4.8
Q4	6.2	1.3	7.9	-0.5	1.4	-6.2	4.0	2.5	-1.5	1.1	-2.5	35.8	3.4	6.4	10.7	1.4	7.2
1998 Q1	4.8	-1.3	5.6	1.3	0.0	-7.9	3.3	-13.4	-4.1	3.2	-3.5	9.1	-1.0	7.1	-5.4	-0.6	2.3
Q2	4.3	-4.0	0.1	-2.0	-4.7	-4.0	3.3	-17.1	-2.3	4.9	1.8	-5.9	-8.0	0.9	-5.4	0.3	1.2
Q3	2.9	-3.8	-1.4	-5.7	-4.6	-6.7	2.9	-11.6	-3.6	3.3	1.0	-20.3	-10.6	-4.1	-4.3	-0.4	1.5
Q4	-0.3	-0.6	3.1	-5.7	-3.9	-1.0	4.6	-1.1	-1.9	-0.1	-2.7	-6.3	-7.9	-8.6	1.7	0.2	1.5
1999 Q1	-0.3	2.4	14.3	-5.1	1.3	0.5	6.2	-6.2	-3.1	-10.0	-18.6	-9.6	-3.3	-10.5	-3.1	-0.2	2.1
Q2	1.0	8.1	20.4	-6.2	8.8	1.9	6.2	14.5	-6.5	-13.6	-24.0	15.5	4.1	-3.3	0.7	1.0	8.2
Q3	3.5	6.9	19.3	-7.9	10.9	3.7	6.2	1.1	-4.8	-10.8	-20.9	7.7	2.4	-5.1	-0.9	1.8	4.8

Source: Singapore Department of Statistics  
Ministry of Manpower

**TABLE 7 : MONETARY**

End of Period	Money Supply								Interest Rates				
	Narrow Money M1	Broad Money M2	Broad Money M3	Reserve Money	Narrow Money M1	Broad Money M2	Broad Money M3	Reserve Money	Prime Lending Rate	3-month Interbank Rate	3-month SIBOR (US\$)	Banks	
												Savings Rate	12-month Fixed Deposit Rate
	S\$ Billion				Year-on-Year % Change				Rate % Per Annum				
1992	18.5	75.7	101.5	13.5	12.7	8.9	9.5	10.6	5.55	2.19	3.50	1.79	2.97
1993	22.9	82.1	111.4	14.7	23.6	8.5	9.7	8.4	5.34	3.31	3.38	1.59	2.79
1994	23.4	94.0	125.8	15.6	2.3	14.4	13.0	6.2	6.49	4.38	6.50	2.93	4.23
1995	25.3	102.0	136.7	17.0	8.3	8.5	8.7	9.4	6.26	2.50	5.56	2.72	4.01
1996	27.0	112.0	148.5	18.2	6.7	9.8	8.6	6.7	6.26	3.28	5.56	2.72	3.99
1997	27.5	123.4	160.8	19.2	1.7	10.3	8.3	5.6	6.96	6.69	5.81	3.08	4.41
1998	27.2	160.8	173.6	16.6	-1.0	30.2	8.0	-13.3	5.90	1.72	5.13	1.43	2.51
1995 Q1	23.8	94.7	126.8	15.7	6.0	15.0	13.3	8.6	6.49	2.81	6.31	2.93	4.23
Q2	24.7	98.0	131.0	15.9	10.2	14.3	13.3	5.7	6.34	2.38	6.06	2.76	4.06
Q3	24.7	98.5	131.9	16.0	6.6	9.4	9.5	4.7	6.26	2.78	5.88	2.72	4.01
Q4	25.3	102.0	136.7	17.0	8.3	8.5	8.7	9.4	6.26	2.50	5.56	2.72	4.01
1996 Q1	25.9	104.7	138.7	17.0	8.8	10.6	9.4	7.9	6.26	2.34	5.44	2.72	4.01
Q2	26.4	107.7	142.1	17.6	7.0	9.9	8.5	10.9	6.26	3.00	5.59	2.72	4.01
Q3	26.5	109.4	144.2	17.7	7.7	11.1	9.3	10.9	6.26	3.22	5.63	2.72	4.01
Q4	27.0	112.0	148.5	18.2	6.7	9.8	8.6	6.7	6.26	3.28	5.56	2.72	3.99
1997 Q1	28.5	117.0	153.8	19.4	9.8	11.8	10.9	14.2	6.26	3.47	5.75	2.72	3.99
Q2	28.2	119.1	156.3	18.3	6.9	10.6	10.0	3.7	6.26	3.66	5.81	2.72	3.98
Q3	28.0	120.5	157.8	18.6	5.5	10.2	9.5	4.8	6.26	3.94	5.75	2.72	3.98
Q4	27.5	123.4	160.8	19.2	1.7	10.3	8.3	5.6	6.96	6.69	5.81	3.08	4.41
1998 Q1	26.6	128.0	164.8	19.1	-6.5	9.4	7.1	-1.3	7.74	5.00	5.69	3.46	5.32
Q2	24.9	128.7	165.5	18.8	-11.8	8.1	5.9	2.5	7.79	6.22	5.69	3.49	5.38
Q3	24.9	132.6	169.5	15.2	-11.0	10.0	7.4	-18.3	7.54	4.94	5.31	3.24	4.94
Q4	27.2	160.8	173.6	16.6	-1.0	30.2	8.0	-13.3	5.90	1.72	5.13	1.43	2.51
1999 Q1	29.0	163.6	176.0	17.3	8.9	27.8	6.8	-9.5	5.80	2.06	5.00	1.36	2.46
Q2	29.6	167.9	179.6	16.7	18.9	30.4	8.5	-10.9	5.80	1.78	5.34	1.36	2.46
Q3	28.8	170.3	181.8	17.0	15.4	28.4	7.3	11.5	5.80	2.19	6.05	1.36	2.46

Source: Monetary Authority of Singapore

**TABLE 8 : FISCAL**

Period	Operating Revenue							Expenditure			Surplus (+)/ Deficit (-)	
	Total	Tax Revenue					Non-tax Revenue	Total	Operating	Development		
		Total	Income Tax	Asset Tax	Stamp Duty	GST						
	S\$ Million											% of GDP
FY1992	17772	14237	7147	1498	673	0	3535	12161	8512	3649	5611	6.8
FY1993	20656	16224	7735	1645	1107	0	4432	12896	9001	3895	7759	8.0
FY1994	23713	19000	8296	1845	1394	1523	4714	14043	10072	3971	9670	8.9
FY1995	25255	19896	8773	1757	1271	1626	5359	17410	11449	5962	7844	6.4
FY1996	28930	23205	10951	1823	1878	1746	5724	23286	14159	9128	5643	4.3
FY1997	29181	23011	10195	2335	1688	1927	6170	23043	14080	8963	6139	4.3
FY1998 (Prelim.)	27911	21551	11331	1529	953	1658	6360	26933	14651	12282	978	0.7
FY1999 (Estimated)	24112	18176	8250	1390	900	1650	5936	29165	15229	13936	-5054	-3.5
1995 Q1	6372	4852	1466	615	435	412	1520	4231	3156	1075	2141	n.a.
Q2	5755	4505	2204	323	288	425	1250	2976	1928	1048	2779	n.a.
Q3	6513	5414	2621	607	330	415	1099	3572	2585	987	2941	n.a.
Q4	6142	4808	2475	294	311	395	1334	4775	3214	1561	1367	n.a.
1996 Q1	6845	5169	1473	533	342	391	1676	6086	3721	2365	759	n.a.
Q2	6745	4969	2418	289	451	483	1776	3489	2238	1251	3256	n.a.
Q3	7427	6307	2982	500	593	475	1120	4449	3036	1413	2978	n.a.
Q4	7021	5474	2666	308	448	439	1547	5151	3259	1892	1870	n.a.
1997 Q1	7737	6455	2885	727	386	349	1282	10199	5626	4573	-2462	n.a.
Q2	6444	5692	2678	395	524	738	752	4386	2330	2056	2058	n.a.
Q3	8044	6684	3140	762	453	509	1360	5167	3158	2009	2877	n.a.
Q4	8388	5610	2761	519	332	393	2778	6113	4045	2068	2275	n.a.
1998 Q1	6305	5025	1616	659	380	287	1280	7376	4547	2829	-1071	n.a.
Q2	7141	5363	2861	389	255	523	1778	4841	2834	2007	2300	n.a.
Q3	7140	5957	3200	488	224	527	1183	5268	2893	2375	1872	n.a.
Q4	7626	5809	3289	313	222	352	1817	7308	3962	3346	318	n.a.
1999 Q1	6004	4422	1981	339	252	256	1582	9516	4962	4554	-3512	n.a.
Q2	6522	4909	2537	241	262	622	1613	4390	2454	1936	2132	n.a.
Q3	9072	7182	4377	389	387	539	1890	4942	2874	2068	4130	n.a.

Source: Ministry of Finance

**TABLE 9 : BALANCE OF PAYMENTS - Current Account**

Period	Current Account Balance		Goods Account			Services Account						Income Balance	Current Transfers
			Exports	Imports	Balance	Total	Transportation	Travel	Insurance	Govt. Servs	Other		
	S\$ Million	% of GNP	S\$ Million										
1992	9635	11.7	108432	111400	-2967	10854	-1330	5239	-596	-14	7556	2522	-774
1993	6804	7.3	125802	130204	-4401	11757	-1359	5253	-599	-8	8469	315	-866
1994	17413	16.0	149566	147497	2069	13970	-1153	4450	-674	10	11337	2384	-1010
1995	20462	16.8	167897	166512	1384	17089	-1136	3855	-878	-36	15284	3244	-1255
1996	20458	15.4	177680	174543	3136	14460	-1538	2480	-855	1	14372	4375	-1513
1997	22320	15.0	186708	185048	1660	16474	-1722	1093	-823	-28	17953	5949	-1762
1998	29479	20.0	184731	160167	24565	553	-2561	-744	-528	-48	4434	6332	-1971
1995 Q1	5840	n.a.	38059	37152	908	4280	-203	1161	-185	-9	3516	943	-291
Q2	4480	n.a.	40846	40997	-150	3974	-312	763	-220	-1	3744	956	-299
Q3	5697	n.a.	43946	43443	503	4921	-291	1284	-237	-15	4181	595	-323
Q4	4445	n.a.	45045	44921	124	3914	-331	648	-236	-11	3844	750	-342
1996 Q1	4126	n.a.	43717	43461	255	3100	-416	904	-228	-1	2842	1127	-357
Q2	4396	n.a.	43803	43307	496	3251	-373	508	-213	5	3325	1018	-369
Q3	7456	n.a.	44363	42302	2061	4267	-358	728	-202	1	4098	1513	-385
Q4	4480	n.a.	45796	45473	324	3841	-392	341	-212	-4	4108	717	-402
1997 Q1	4572	n.a.	42369	42621	-252	3804	-390	650	-183	-15	3742	1435	-415
Q2	7081	n.a.	46253	45117	1136	4580	-429	376	-202	2	4834	1797	-431
Q3	5752	n.a.	48097	48459	-362	5000	-431	360	-220	-6	5297	1565	-452
Q4	4915	n.a.	49989	48851	1138	3089	-472	-293	-218	-9	4080	1152	-464
1998 Q1	4892	n.a.	46546	42083	4462	-603	-517	-52	-156	-17	139	1515	-482
Q2	7499	n.a.	45550	39090	6460	-383	-543	-334	-125	-10	629	1908	-486
Q3	8670	n.a.	47467	40347	7120	602	-733	0	-128	-14	1478	1452	-503
Q4	8417	n.a.	45169	38647	6522	937	-768	-358	-118	-7	2188	1456	-499
1999 Q1	6505	n.a.	42343	37788	4554	667	-549	176	-81	-18	1139	1774	-490
Q2	8313	n.a.	48204	43255	4949	2137	-1014	-153	-162	-6	3472	1707	-480
Q3	6942	n.a.	50286	46704	3582	2505	-636	84	-160	-12	3229	1348	-493

Source: Singapore Department of Statistics

**TABLE 10 : BALANCE OF PAYMENTS - Capital & Financial Accounts**

Period	Capital & Financial Account Balance	Capital Account	Financial Account						Errors & Omissions	Overall Balance	Official Foreign Reserves (End-of-Period)
			Total	Direct Investment	Portfolio Investment	Other Investment					
						Total	Banks	Others			
1992	2859	-62	2921	1446	4056	-2580	-1173	-1408	-2535	9959	65788
1993	-2074	-115	-1958	4095	-8024	1971	4391	-2421	7423	12154	77867
1994	-13633	-129	-13504	6069	-11801	-7772	1707	-9479	3522	7302	85166
1995	-6811	-101	-6710	1311	-10430	2410	7904	-5494	-1477	12174	97337
1996	-4560	-196	-4364	2269	-14499	7865	6344	1521	-5492	10407	107751
1997	-5976	-257	-5719	7406	-17022	3897	9362	-5464	-4489	11856	119617
1998	-29902	-378	-29524	6879	-12523	-23880	-17689	-6191	5404	4981	124584
1995 Q1	2028	-23	2050	22	-2683	4711	3496	1214	-5883	1985	87161
Q2	1456	-23	1478	683	-1903	2698	4139	-1441	-216	5720	92876
Q3	-231	-31	-200	257	-2937	2479	1917	562	-3207	2258	95125
Q4	-10063	-25	-10038	349	-2908	-7478	-1648	-5830	7829	2211	97337
1996 Q1	-7524	-36	-7488	131	-4531	-3088	1390	-4478	5186	1788	99134
Q2	5153	-48	5201	782	-3059	7478	1716	5761	-6725	2823	101955
Q3	-1744	-65	-1678	376	-3625	1570	1900	-329	-2993	2720	104675
Q4	-445	-46	-399	981	-3284	1905	1337	567	-959	3076	107751
1997 Q1	-6835	-54	-6782	726	-3814	-3694	1246	-4940	8348	6086	113848
Q2	1358	-71	1429	1286	-4361	4504	2282	2222	-6760	1679	115528
Q3	5224	-59	5283	2951	-3981	6312	4363	1949	-8073	2903	118436
Q4	-5723	-73	-5649	2443	-4866	-3226	1470	-4696	1996	1188	119617
1998 Q1	-10771	-84	-10687	1703	-1840	-10550	-7877	-2673	6218	340	119956
Q2	-8901	-108	-8793	1826	-3347	-7273	-979	-6293	2611	1210	121196
Q3	-5247	-101	-5146	1742	-3764	-3124	-7985	4861	-2558	866	122062
Q4	-4984	-86	-4899	1607	-3572	-2934	-849	-2085	-867	2566	124584
1999 Q1	-17600	-83	-17517	3361	-1864	-19014	-5965	-13049	10681	-415	124327
Q2	-1457	-93	-1364	1619	-4007	1024	2501	-1477	-2057	4799	125856
Q3	-96	-74	-22	1635	-2205	548	-9005	9553	-6852	-6	129590

Source: Singapore Department of Statistics

**TABLE 11 : EXCHANGE RATES**

End of Period	Singapore Dollar Per											
	US Dollar	Pound Sterling	EURO	Deutsche Mark	100 Swiss Franc	100 French Franc	100 Japanese Yen	Malaysian Ringgit	Hong Kong Dollar	100 New Taiwan Dollar	100 Korean Won	Australian Dollar
1992	1.6449	2.4867	n.a.	1.0175	112.39	29.84	1.3198	0.6306	0.2125	6.4758	0.2086	1.1312
1993	1.6080	2.3802	n.a.	0.9272	108.61	27.28	1.4364	0.5953	0.2082	6.0338	0.1989	1.0885
1994	1.4607	2.2782	n.a.	0.9405	111.18	27.26	1.4628	0.5707	0.1888	5.5370	0.1850	1.1341
1995	1.4143	2.1884	n.a.	0.9839	122.61	28.79	1.3744	0.5567	0.1929	5.1821	0.1827	1.0540
1996	1.3998	2.3670	n.a.	0.9001	103.80	26.72	1.2046	0.5538	0.1809	5.0919	0.1657	1.1150
1997	1.6755	2.7771	n.a.	0.9363	115.23	27.98	1.2893	0.4313	0.2162	5.1433	0.0993	1.0935
1998	1.6605	2.7666	n.a.	0.9891	120.15	29.48	1.4484	0.4370	0.2143	5.1552	0.1394	1.0190
1995 Q1	1.4191	2.2781	n.a.	1.0068	121.40	28.88	1.5886	0.5597	0.1835	5.4673	0.1839	1.0348
Q2	1.3965	2.2213	n.a.	1.0095	121.38	28.77	1.6507	0.5725	0.1805	5.4078	0.1839	0.9925
Q3	1.4205	2.2451	n.a.	1.0021	124.55	29.06	1.4432	0.5666	0.1837	5.2404	0.1849	1.0731
Q4	1.4143	2.1884	n.a.	0.9839	122.61	28.79	1.3744	0.5567	0.1929	5.1821	0.1827	1.0540
1996 Q1	1.4080	2.1493	n.a.	0.9549	118.43	28.00	1.3206	0.5550	0.1821	5.1674	0.1799	1.0983
Q2	1.4099	2.1834	n.a.	0.9274	112.79	27.43	1.2864	0.5652	0.1822	5.1200	0.1740	1.1132
Q3	1.4080	2.2014	n.a.	0.9242	112.32	27.32	1.2680	0.5615	0.1821	5.1229	0.1705	1.1142
Q4	1.3998	2.3670	n.a.	0.9001	103.80	26.72	1.2046	0.5538	0.1809	5.0919	0.1657	1.1150
1997 Q1	1.4451	2.3609	n.a.	0.8603	99.49	25.54	1.1654	0.5829	0.1865	5.2468	0.1635	1.1330
Q2	1.4300	2.3793	n.a.	0.8229	98.41	24.40	1.2513	0.5665	0.1845	5.1417	0.1610	1.0660
Q3	1.5295	2.4626	n.a.	0.8641	105.05	25.74	1.2640	0.4783	0.1976	5.3476	0.1672	1.1030
Q4	1.6755	2.7771	n.a.	0.9363	115.23	27.98	1.2893	0.4313	0.2162	5.1433	0.0993	1.0935
1998 Q1	1.6060	2.6926	n.a.	0.8695	105.54	25.95	1.2200	0.4412	0.2073	4.8951	0.1155	1.0673
Q2	1.7068	2.8461	n.a.	0.9443	112.16	28.18	1.2141	0.4098	0.2203	4.9509	0.1237	1.0462
Q3	1.6850	2.8783	n.a.	1.0080	121.59	30.06	1.2456	0.4434	0.2175	4.8954	0.1216	1.0070
Q4	1.6605	2.7666	n.a.	0.9891	120.15	29.48	1.4484	0.4370	0.2143	5.1552	0.1394	1.0190
1999 Q1	1.7322	2.7914	1.8548	0.9483	116.21	28.27	1.4385	0.4558	0.2235	5.2253	0.1413	1.0886
Q2	1.7013	2.6787	1.7562	0.8985	109.76	26.80	1.4105	0.4477	0.2193	5.2736	0.1468	1.1255
Q3	1.7026	2.8002	1.8129	0.9267	113.28	27.63	1.5941	0.4480	0.2192	5.3556	0.1399	1.1124

Source: Monetary Authority of Singapore