3.1 External Outlook

An Extended Period of Subdued Growth

The global economy is expected to resume a steady, though sub-par, growth path in 2012.

The near-term prospects for the world economy have improved in recent months after a stream of positive developments in the major economies helped to bolster confidence and ward off the risk of a serious financial disruption. In the Eurozone, decisive intervention by the European Central Bank (ECB) resulted in a reprieve from the sovereign debt crisis. Meanwhile, US economic data raised confidence of a more assured, albeit modest, recovery in 2012. In China, where a moderation in growth is underway, the decline in headline inflation has afforded the authorities room to ease policies and support growth.

Although tail risks have diminished, the advanced economies continue to face structural headwinds from private and public sector deleveraging. The G3 economies are therefore expected to attain only sub-par growth this year. (Table 3.1) Indeed, the slow recovery from the financial crisis may have lowered trend growth rates in the US and Eurozone. Current and future fiscal consolidation, by reducing public investment in physical and human capital, could restrain potential output in the medium term.

The performance of the Asian economies will depend in part on the strength of the upturn in the US and the global electronics cycle. Growth in Asia ex-Japan will also be held up by domestic demand, which has stayed resilient throughout the global downturn last year. Beyond the short run, however, the process of rebalancing the sources of growth in the region towards private consumption and investment will require time and new policy initiatives. In the interim, Asia might experience a slight demand shortfall as reduced exports to the advanced economies cannot be fully replaced by indigenous spending.

Table 3.1
GDP Growth Forecasts

(%)

	2011	2012F	2013F
Total*	**4.3**	**4.1**	**4.8**
G3*	1.1	1.2	1.7
US	1.7	2.3	2.5
Eurozone	1.5	−0.4	0.9
Japan	−0.7	2.0	1.5
Asia ex-Japan*	**5.8**	**5.5**	**6.1**
NIE-3*	**4.4**	**3.1**	**4.4**
Hong Kong	5.0	3.0	4.6
Korea	3.6	3.3	3.9
Taiwan	4.0	3.1	4.5
ASEAN-4*	**4.5**	**5.0**	**5.4**
Indonesia	6.5	6.0	6.4
Malaysia	5.1	4.3	5.1
Thailand	0.1	5.3	4.7
Philippines	3.7	4.0	4.9
China	9.2	8.4	8.5
India**	7.1	7.2	7.7

Source: CEIC and Consensus Economics Inc.

* Weighted by share in Singapore's NODX.

** Forecast refers to fiscal year ending March.

The US economy is likely to grow moderately.

In the first quarter of 2012, US industrial production expanded by 1.3% q-o-q SA, accompanied by an increase in retail sales, especially of automobiles. Thus far, leading indicators such as the economy-wide PMIs point to a further recovery, while consumer confidence indices are markedly above the levels seen last September. (Chart 3.1)

Nonetheless, real household incomes have fallen by an average of 0.2% m-o-m SA in January and February, crimped by higher energy prices. Real incomes should start to grow again if oil price increases are contained and the labour market continues to improve—non-farm employment increased by 635,000 in Q1 2012 compared to 492,000 in Q4 2011. The moribund housing market has also shown nascent signs of recovery, with a recent drop in the number of vacant housing units. (Chart 3.2) New household formation trebled last year, suggesting that the demand for houses could soon catch up with supply, aided by record low mortgage rates and improved affordability.

A mild recession is projected for the Eurozone.

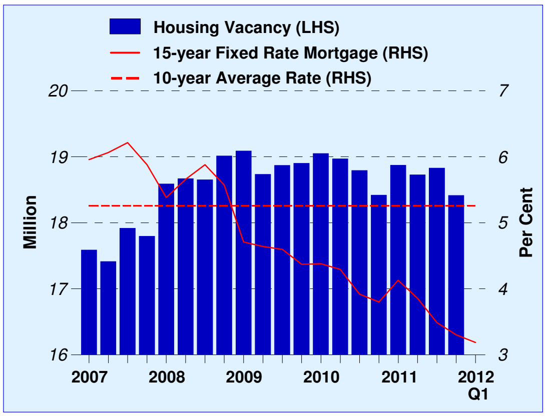
In the Eurozone, the ECB's provision of over €1 trillion in liquidity through two longer-term refinancing operations (LTRO) in December 2011 and February 2012 has relieved short-term funding stresses, but these measures have yet to translate into an increase in bank lending to the private sector. (Chart 3.3) The need for fiscal consolidation in order to achieve targets set out in the EU fiscal compact will also constrain growth this year. This, coupled with high unemployment and depressed consumer sentiment, will likely tip the Eurozone into a mild recession in 2012.

Moreover, fundamental problems continue to weigh on confidence and could pose further downside risks to the short-term economic outlook for the Eurozone. As a result of fiscal austerity measures, there are fears that nominal output growth may be too weak to facilitate a reduction in the debt-to-GDP ratios of the peripheral economies. Greece and Spain, in particular, could fall into a downward cycle of shrinking tax revenues and declining activity, forcing them deeper into debt and re-igniting market jitters of unsustainable fiscal trajectories. This in turn could cause the banking sector to deleverage further, given its large holdings of sovereign debt.

Chart 3.1
US Purchasing Managers' Indices

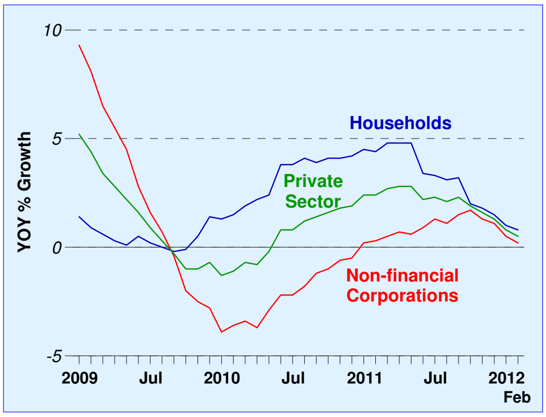
Source: ISM

Chart 3.2
US Housing Vacancies and Mortgage Rates



Source: CEIC

Chart 3.3
Bank Lending to the Eurozone Private Sector



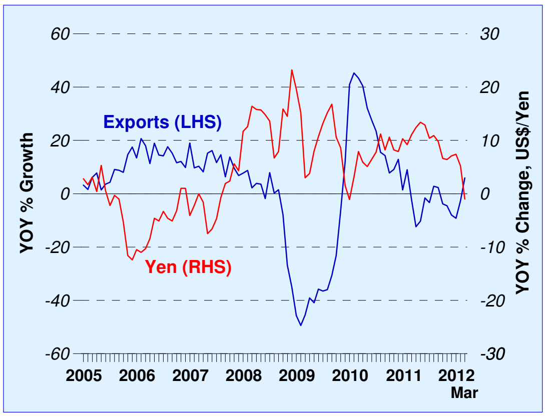
Source: ECB

Note: Private sector comprises households and non-financial corporations.

Reconstruction will boost Japan's growth, but energy constraints loom.

As the effects of the supply disruptions from the Thai floods faded, Japan's post-tsunami economic recovery resumed in early 2012. Growth this year will be boosted by increased public investment for reconstruction purposes, as well as private consumption which should receive a fillip from the restarting of the 'green car' purchase programme.[1] Nonetheless, the recovery is fragile and could easily be derailed by a slump in external demand or a resumption in yen appreciation. (Chart 3.4) Japan's economy is also highly vulnerable to an increase in global oil prices at this juncture, given the severe energy supply constraints it faces due to the shutdown of its nuclear power plants.

Chart 3.4
Japan's Exchange Rate and Exports



Source: CEIC

Note: A positive change in the exchange rate denotes yen appreciation.

The Northeast Asian economies could pick up later in the year if external demand improves.

In view of the subdued performance of the advanced economies, growth in Asia ex-Japan is expected to moderate further in 2012. Real GDP growth in regional heavyweight China is likely to soften to 8.4% this year, from 9.2% in 2011. In Q1 2012, the Chinese economy expanded by 8.1% y-o-y, the slowest in almost three years, as earlier rounds of monetary tightening and property market curbs exacerbated the effects of sluggish external demand.

Nevertheless, China's economy should gradually pick up pace over the rest of the year. Cautious monetary easing is expected to support loan growth while targeted fiscal spending on infrastructure works and social housing construction will cushion the fall in real estate investment. In addition, the tight labour market—as indicated by the higher ratio of vacancies to job-seekers—should boost wages and stimulate private consumption, helped along by longer-term measures such as income tax reforms. (Chart 3.5)

Chart 3.5
China's Ratio of Vacancies to Job-seekers

Source: CEIC

Note: A ratio above one suggests excess demand for labour.

Despite the slowdown in China, the export sectors in Korea and Taiwan appear to be lifting as US demand recovers and the electronics cycle turns. The manufacturing PMIs in these economies have risen since late 2011 and have crossed over into expansionary territory since February 2012, indicating a rebound in industrial activity in the next few months. (Chart 3.6)

Chart 3.6
Purchasing Managers' Indices in Korea and Taiwan

Source: Markit

[1] This programme of subsidies for fuel-efficient automobiles was first initiated by the Japanese government in April 2009. It expired in September 2010 and was re-introduced in December 2011.

Domestic demand, particularly investment, will underpin growth in the ASEAN-4.

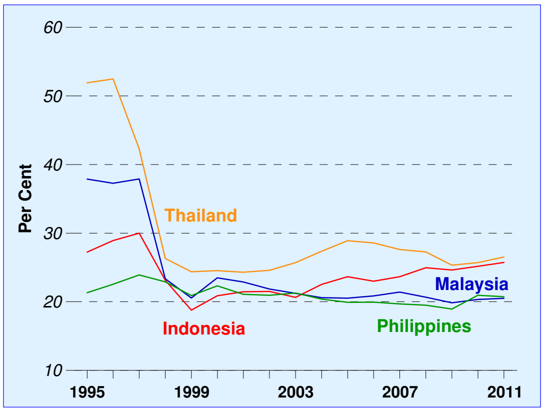
In the ASEAN-4, domestic demand will continue to play an important role in supporting growth during 2012. Private consumption will be underpinned by rising household incomes, owing to tight labour markets and hikes in minimum wages and civil servants' pay. In Thailand, government flood relief measures will provide a further boost to household spending.

The ASEAN-4 countries, particularly Indonesia, are poised for an investment revival after a prolonged period of weak capital spending. Aggregate investment rates fell significantly during the Asian Financial Crisis, and have generally remained low since. (Chart 3.7) In recent years, however, ASEAN's attractiveness as an investment location has been enhanced as a result of improving macroeconomic fundamentals and political stability. Its appeal as an alternative manufacturing base has also strengthened in the light of rising production costs in China, and firms' pursuit of greater supply chain diversification following the Tohoku disaster.

In addition, ASEAN governments have taken steps to ease infrastructure bottlenecks, which will lift productivity and raise economic capacity. Since the late 1990s, the region's investment efficiency has improved, as shown by the decline in incremental capital-output ratios (ICOR) to around 4, closer to the NIEs' average of about 2.5 during their industrialisation phase.[2] (Chart 3.8)

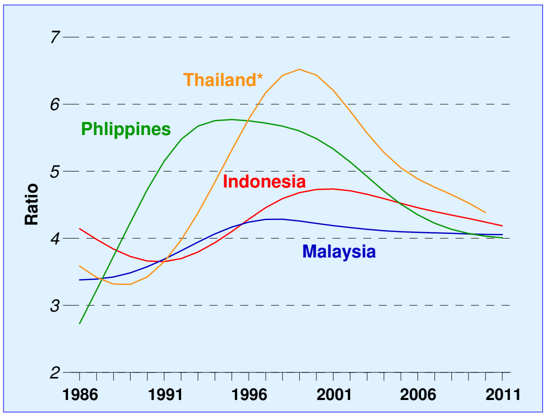
For 2012, ASEAN governments have already announced a pipeline of infrastructure projects in their countries. In Indonesia, the passing of the land acquisition bill in December last year should help to facilitate the implementation of infrastructure projects. Meanwhile, its recent sovereign debt rating upgrade to investment grade status is expected to attract larger capital inflows, including foreign direct investment. In Malaysia, private investment will be stimulated by the ongoing implementation of projects under the government's Economic Transformation Programme (ETP). In Thailand, where a V-shaped recovery is underway after the severe flooding in Q4 2011, reconstruction works and flood mitigation projects will boost investment spending over the next two years.

Chart 3.7
ASEAN-4's Investment Share in GDP



Source: CEIC and EPG, MAS Estimates

Chart 3.8
ICORs in ASEAN-4



Source: CEIC and EPG, MAS Estimates

* Thailand's 2011 figure is omitted because of distortions created by the impact of the severe flooding in Q4.

[2] ICOR measures the average increase in capital required to produce an additional unit of output. A decline in ICOR indicates a rise in investment efficiency.

There are upside risks to inflation, especially in Asia.

Elevated oil prices could pose upside risks to global inflation in 2012 should geopolitical tension in the Middle East escalate. Also, a stronger-than-anticipated upturn in the global economy would exacerbate inflationary pressures in 2012.

Headline inflation in the US may creep up with higher energy costs and a sustained recovery in the labour market. Meanwhile, overall inflation in the Eurozone is only expected to decline gradually from a three-year high of 2.9% y-o-y in Q4 2011 due to recent increases in oil prices and higher indirect taxes in some countries. However, core inflation should be muted as deteriorating labour market conditions will dampen wage pressures. In Japan, a closing output gap and energy shortages should prevent prices from falling significantly this year.

Across Asia ex-Japan, headline inflation is expected to ease slightly in 2012 as a result of the high base in 2011, the recent stabilisation of food prices, and a slight moderation in output growth. However, with many economies currently operating close to potential output, a resurgence in global economic growth could cause underlying price pressures to intensify. Although the presence of fuel subsidies or price controls in some Asian countries will cushion the impact of a further run-up in oil prices, such measures are difficult to sustain indefinitely. Indeed, countries such as China and Indonesia plan to liberalise domestic energy prices and reduce subsidies.

3.2 Outlook for the Singapore Economy

Gradual Emergence from the Slowdown

The Singapore economy is expected to expand by 1–3% this year.

Between Q2 and Q4 last year, the domestic economy consolidated somewhat as it was buffeted by external shocks, including financial market turbulence and natural disasters. While there was some tentative improvement at the turn of the year, especially in the US economy, the global economy remains vulnerable to downside risks as deep structural issues persist in the developed economies, particularly the Eurozone. The slowdown in China, and elevated oil prices have also added uncertainty to the near-term outlook. These external developments continue to cap the upside to domestic growth prospects. The ongoing tightening of foreign worker policies could also impact firms' short-term profitability.

EPG's assessment is that the Singapore economy should see modest growth in the quarters ahead, alongside gradual improvements in the external environment. While the expansion in Q1 2012 was relatively strong, much of the growth was driven by the easing of transitory shocks from last year. Trade-related activity is thus likely to remain sluggish, particularly in electronics which has been hit by both global and domestic factors. Growth will instead be anchored by domestic and regional-oriented services, such as the tourism and financial industries. Thus, barring a major dislocation in the global economy, Singapore's GDP growth is expected to come in at 1–3% this year.

The modest uplift in the external environment will underpin the recovery in the global IT industry.

In Chapter 1, the expansion in Singapore's Q1 2012 GDP was attributed to the strong turnaround in IT-related activities. The recovery largely reflected the normalisation of production activities following the series of regional supply-related shocks in 2011.

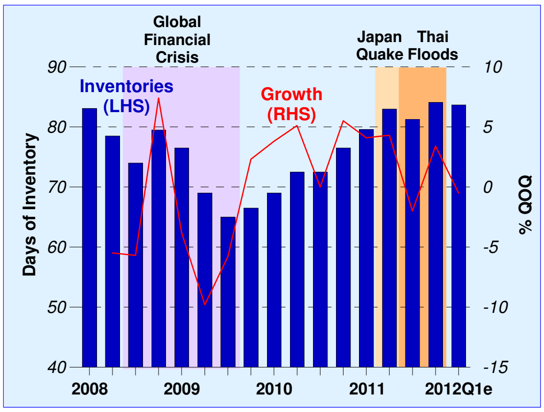
The outlook for the global IT industry hinges critically on whether final demand will pick up strongly over the next few quarters.

In the current global IT cycle, the recovery thus far has been slower and more modest compared to that in 2009—which saw a sharp correction in inventories and global chip sales followed by a swift rebound. (Chart 3.9) In contrast, record levels of midstream inventories were accumulated in H1 2011, as firms stocked up on chips amid fears of shortages in the immediate aftermath of the Tohoku earthquake. However, before the IT industry could recover fully from the effects of the Japan earthquake, the adjustment process was hampered by the massive flooding in Thailand in the latter part of the year. As a result, global chip inventories crept back up to a high of 84.1 days of inventory (DOI) in Q4, well above the historical average of 75.7, and global chip shipments contracted for a second straight quarter, falling by 8.1% q-o-q. (Chart 3.10) Industry estimates point to a slight decline in stockpiles in Q1 this year, edging down by 0.5% to 83.7 DOI. This is consistent with the performance of key foundry companies which recorded fairly subdued sales in the first quarter.

Encouragingly, downstream IT demand has started to show some signs of picking up across both the advanced economies and emerging markets. Some support could come from the recovery in the US, where corporate IT spending, which rose by 3.6% q-o-q SA in Q4 following a 2.9% increase in Q3, should continue to strengthen with the improvement in firms' profits and business sentiment. (Chart 3.11) Enterprise spending growth will also be driven by rising demand for IT networking products, alongside growing adoption of new technologies such as cloud computing and desktop virtualisation. In addition, US retail IT spending, which contracted in December 2011, recorded positive gains in Q1 2012. This could be reinforced by the launch of devices such as the latest iPad, and a fresh series of Ultrabook models in the second half of the year.

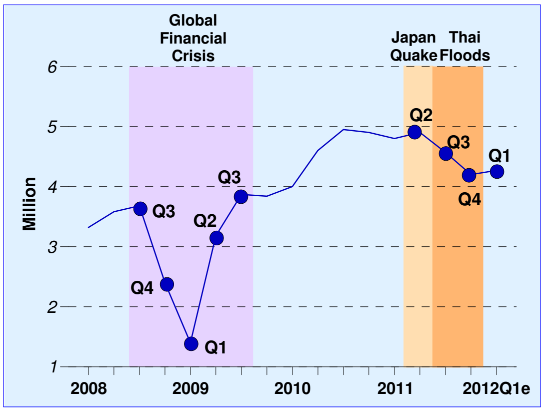
In China, while the pace of increase in corporate spending has slowed, consumer spending on electronics products recorded double-digit sequential gains in the last two months of 2011, and should continue to drive overall growth this year. This nascent pickup in end demand should facilitate the ongoing recovery in the global IT industry though it is still dependent on a relatively sanguine macroeconomic outcome in the key industrialised countries.

Chart 3.9
Global Semiconductor Inventories



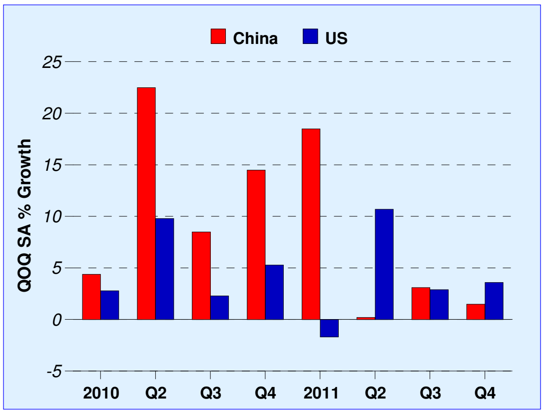
Source: IHS iSuppli

Chart 3.10
Global Chip Shipments



Source: Company and Brokerage Reports

Chart 3.11
US and China Corporate IT Spending



Source: CEIC and EPG, MAS estimates

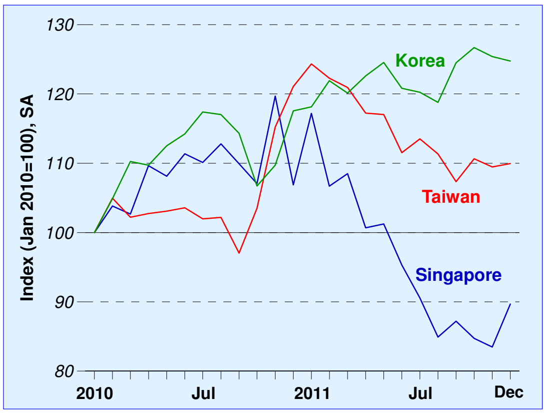
Semiconductor manufacturing, which dominates domestic electronics production, could see a slower upturn.

The weakness in the global IT industry in 2011 appeared to have affected Singapore's electronics sector more than other key regional players, with domestic electronics output falling by 29% from peak to trough. (Chart 3.12)

This was partly due to Singapore's relatively larger exposure to midstream manufacturing. Chart 3.13 shows the proportion of IT exports of component parts in final products amongst the regional players. As at end-2010, Singapore's exports of semiconductor chips and hard disk-related parts took up a 93% share, compared to 81% in Taiwan and 57% in Korea. Global midstream sales were harder hit by the series of supply shocks last year. (Chart 3.14) In comparison, demand in the downstream segment proved more resilient, and provided greater support to the Korean and Taiwanese electronics industries in the current IT downturn. While the divergence in the midstream and downstream segments will narrow in the coming quarters as the midstream excess inventories clear, it is likely to be a gradual process, which will have a bearing on Singapore's electronics recovery in 2012.

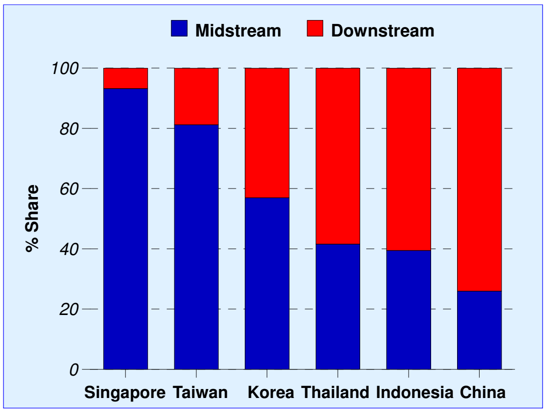
In addition, the recovery in chip prices could vary, depending on the strength of the end market that the segment is tied to. In general, the domestic midstream producers that are more focused on chips for traditional PCs and handsets could face greater pricing pressures given the slower growth of these segments. Global markets for PCs and traditional handsets are expected to record modest growth rates of 5–8% this year, compared to the high double-digit expansions projected for the tablet and smartphone markets. (Table 3.2)

Chart 3.12
Regional Comparison of Electronics IIP



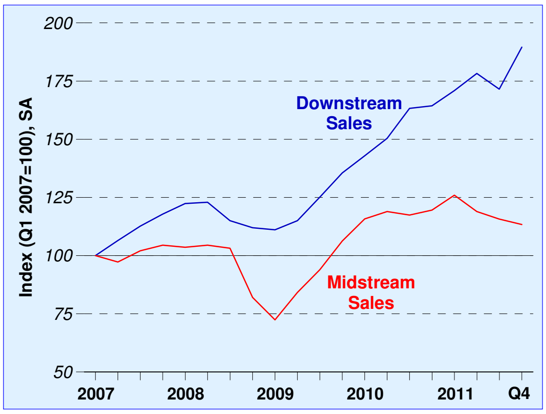
Source: CEIC

Chart 3.13
Midstream and Downstream IT Exports in 2010



Source: Bureau of Foreign Trade, Taiwan, UN Comtrade and EPG, MAS estimates

Chart 3.14
Global Demand for Electronics



Source: Semiconductor Industry Association, Company Reports and EPG, MAS estimates

The rest of the trade-related industries could see some consolidation.

The rest of the domestic trade-related industries are expected to turn in modest gains. In the chemicals industry, for instance, growth is expected to be restrained by capacity expansions from new crackers in Asia and the Middle East. In a similar vein, the domestic pharmaceutical industry will also see more measured growth this year, on the back of the ongoing consolidation in the global pharmaceutical market. Together with electronics, these two clusters make up more than 60% of overall manufacturing production.

Mirroring the muted performance in Singapore's overall manufacturing sector, activity in trade-related services will be capped. In the wholesale trade sector, non-oil re-exports fell by 2.0% q-o-q SA in Q1 this year, following a 6.1% rise in the preceding quarter, as shipments to Northeast Asia slowed. Air cargo volumes also showed renewed weakness in March, declining by 5.4% m-o-m SA after some improvement in the preceding few months.

Prospects for the domestic shipping industry are subdued as well. According to shipping consultancy firm Drewry, global container growth is set to come in at 4.6% this year, down from 7.4% in 2011. This is in line with the latest IMF estimates of a 4.0% rise in world trade in 2012, following a 5.8% expansion last year.

The shipping industry has been undergoing restructuring since late last year, as severe overcapacity, waning demand and high fuel prices impacted profitability. In fact, the number of idle container ships rose to an 18-month high as of early December last year.[3] While efforts have been made to reduce capacity early this year, there will be significant additions to the global fleet servicing the key transpacific routes in the coming months, which will exert renewed downward pressure on freight rates. In addition, global demand remains uncertain at this juncture and a downturn could lead to further consolidation in the industry later this year.

Table 3.2
Electronics Forecast for 2012

	Units (Million)	YOY % Growth
Tablets	160	71
Smartphones	660	40
PCs	380	5.1
Traditional Handsets	1,130	7.5

Source: Gartner, IDC, IHS iSuppli and Company Reports

[3] Based on weekly reports from shipping research firm, Alphaliner.

The resilience of domestic and regional-oriented activities will be a key support this year.

While prospects for the manufacturing-linked industries are uncertain, the non trade-related service sectors will remain buoyant and supportive of GDP growth in 2012, on the back of strong regional and domestic fundamentals.

The region has emerged as an important end market for the services sectors, particularly tourism-related and financial activities, underpinned by rising incomes. The domestic tourism industry, in particular, is well-positioned to benefit from growing intra-Asia travel. According to the United Nations World Tourism Organisation (UNWTO), tourist arrivals into Asia could expand by 4–6% in 2012, faster than the 3–4% growth in global tourist arrivals. UNWTO attributed the relatively stronger inflows to Asia to intra-Asia arrivals.

Given firm travel demand in Asia as well as the addition of new routes, air passenger traffic saw firm growth last year. Passenger traffic at Changi Airport grew by 11%, driven by double-digit gains in the Southeast and Northeast Asia segments. With flight additions to cities within China and Southeast Asia, flight volumes, especially those accounted for by low-cost carriers, should continue to register strong growth this year.

The rising demand for intra-regional travel has led to a shift in the composition of Singapore's tourist arrivals in the last decade. In fact, the share of arrivals into Singapore from ASEAN and emerging economies such as China and India, rose significantly to 60% in 2011, from 47% in 2002. (Chart 3.15) Moreover, tourists from these markets tend to have higher spending power. As shown in Chart 3.16, the markets that have seen both higher-than-average tourist spending and a growing share of Singapore's visitor arrivals have all been from the region. In particular, Chinese tourists' receipts have seen a sharp increase over the last decade. (Chart 3.17) Although these have fallen somewhat following the Global Financial Crisis, levels remained at about twice that seen in the early 2000s.

Chart 3.15
Visitor Arrivals

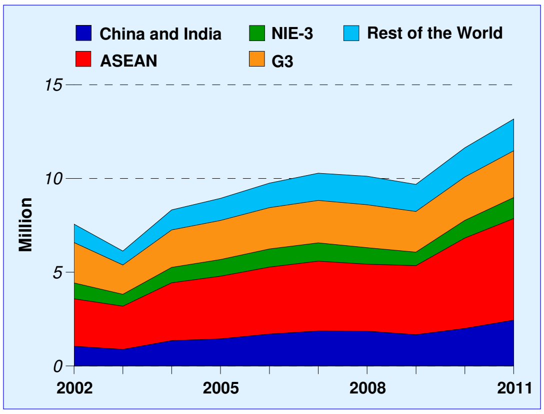
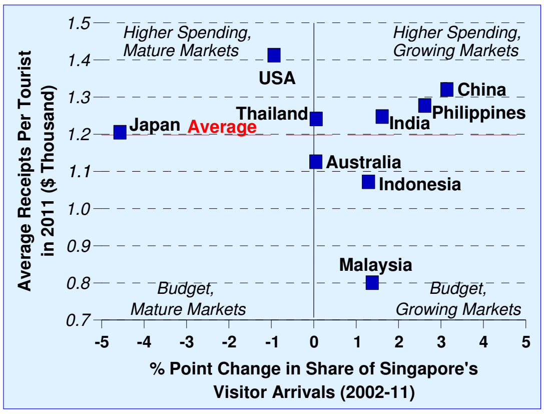
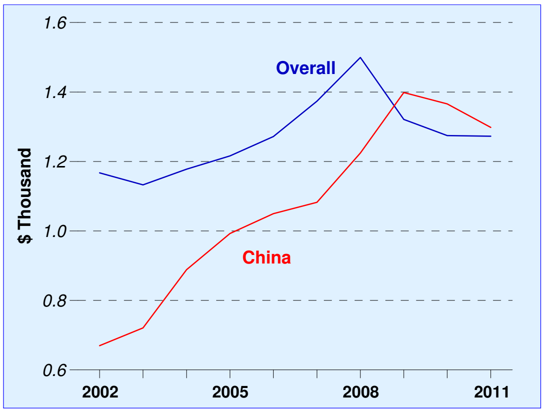


Chart 3.16
Average Tourist Receipts and Visitor Arrivals by Markets



Source: EPG, MAS estimates

Chart 3.17
Tourist Receipts Per Capita



Source: EPG, MAS estimates

New tourist attractions such as the Gardens by the Bay, the largest horticultural recreational space in the region, and the River Safari, a water-themed zoological park, are also expected to come on-stream later in 2012. Together with the opening of new attractions at the IRs such as the Marine Life Park, these additions to the tourism infrastructure should attract more visitors to Singapore. The opening of the International Cruise Terminal at the Marina Bay in Q2, which will accommodate cruise ships that were previously too large to dock in Singapore, will double current berthing capacity and support higher cruise passenger volumes.

Meanwhile, in the financial sector, growth in corporate profitability has spurred firms in the region to seek business expansion opportunities. A poll by Bank of America-Merrill Lynch showed that nearly 34% of regional CFOs surveyed intend to embark on M&A activities in 2012.[4] Firms in the region have also turned increasingly to local financial institutions for financing in the wake of a pullback in lending by capital-constrained European banks. The need for credit has contributed to strong gains in ACU non-bank lending, with the region driving growth in Q1. (Chart 3.18) Indeed, Chart 3.19 shows that the loan-to-deposit ratio has been trending upwards since H2 2011.

The improvement in investment sentiment has also generated spillovers to various capital market activities. Regional firms raised more funds, contributing to the surge in corporate debt issuance in Q1. In particular, companies engaged in niche activities such as aviation financing have been more active in recent months. According to data from Bloomberg, S$ debt issuance for aviation firms swelled to $495 million from $12.5 million in the quarter before.

Chart 3.18
Contribution to ACU Non-bank Lending Growth

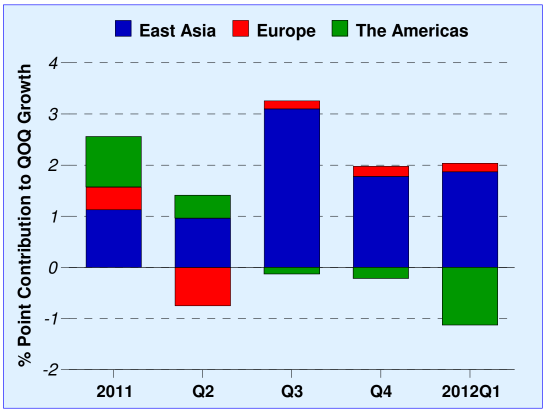
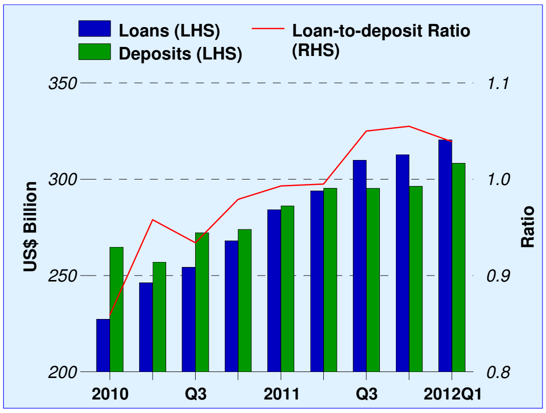


Chart 3.19
ACU Non-bank Loans & Deposits



4 According to the 2012 CFO Outlook Asia by Bank of America-Merrill Lynch.

Domestic-based activities will be boosted by wage growth and the uptick in construction.

On the domestic front, consumer sentiment is expected to remain firm. Over the past decade, retail sales and private consumption have broadly tracked resident wage growth. (Chart 3.20) With local wages expected to still increase at a healthy pace this year, retail sales and other domestic-oriented services should continue to record steady expansions.

Indeed, the recent spurt in domestic demand is likely to have been supported by income gains rather than short-term wealth effects induced by asset price fluctuations. Box A examines the empirical relationship between wealth and consumption in further detail and provides evidence that both stock and property prices are unlikely to be important factors for increased consumer expenditure in the short term.

Meanwhile, the construction industry should continue to expand in 2012, following a ramp-up in contracts awarded over the past two years. Total construction contracts awarded rose by 17% to $32 billion last year, with gains largely in the residential and civil-engineering segments. (Chart 3.21) The steady pipeline of contracts awarded in 2011, which included the HDB's Build-to-Order programme of 25,000 units, Jurong East Mall, and the MRT Downtown Line Stage 3, would start to translate into strong on-site construction activity in the coming quarters. Accordingly, BCA has forecast that the growth of nominal construction output will accelerate to 5–12% in 2012, from 1.2% in 2011. Against this backdrop, construction-related loans, which contributed to a quarter of total domestic non-bank loan growth thus far this year, should see further gains.

Overall activity is likely to be on a gradual uptrend for the rest of the year.

Growth prospects for the world economy have improved since the last *Review* in October 2011 and uncertainty over the Eurozone debt crisis has diminished. The slowdown in Asia's growth has been in line with expectations and the steady improvements in the US economy have provided some much-needed support.

Chart 3.20
Resident Wages, Private Consumption Expenditure and Retail Sales

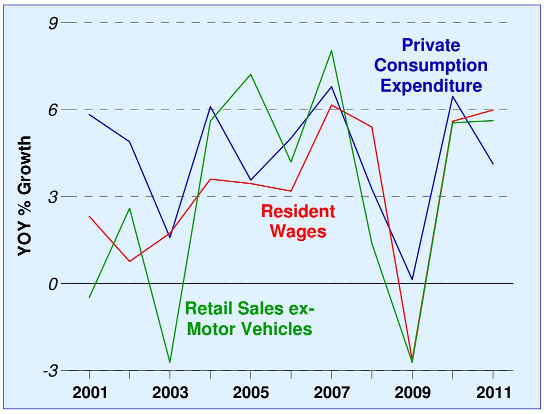
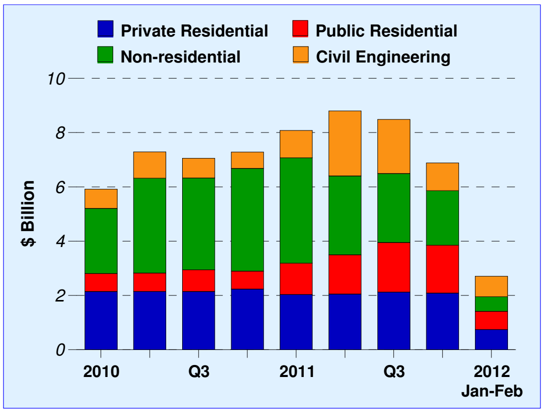
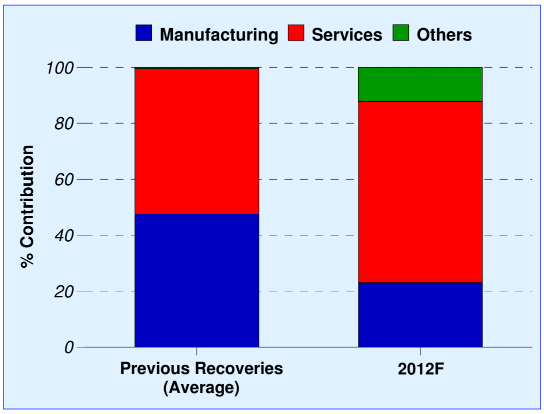


Chart 3.21
Construction Contracts Awarded



In line with these positive developments, the domestic economy has also seen a turnaround. The drivers of GDP growth this year will be skewed towards regional and domestic services, in contrast to previous recoveries. (Chart 3.22) This, to some extent, reflects the continuing unevenness in the pattern of global growth, with the Asian economies expected to outperform the more sluggish industrialised economies.

Chart 3.22
Contribution to GDP Growth



Source: EPG, MAS estimates

Nonetheless, there are downside risks to growth. The structural challenges in the G3 economies will continue to constrain overall demand and fresh bouts of volatility in the external environment could dampen still-fragile investor confidence, affecting both the export-oriented sectors as well as the sentiment-sensitive financial services. The domestic IT industry will also have to grapple with tighter profit margins.

Thus, notwithstanding the strong *Advance Estimates* for Q1 which confirmed that the Singapore economy has turned the corner, the recovery is envisaged to progress at a fairly moderate pace for the rest of 2012.

Towards Sustainable Long-term Growth

Supply-side constraints underscore the need to shift to a productivity-led growth model.

Cyclical developments aside, resource constraints will become more binding over the next decade as the Singapore labour force expands at a slower pace, with baby boomers retiring and growth in foreign worker inflows easing. Hence, the Singapore economy will rely significantly less on increases in the labour force and more on productivity growth.

The Economic Strategies Committee review in 2010 set out broad strategies for firms to make the transition to productivity-led growth. Schemes such as the Productivity and Innovation Credit (PIC) were then rolled out to encourage investment in R&D, innovation, automation and training. The recent Budget also provided enhanced support for SMEs to upgrade the skills of their workers through various WDA-sponsored courses.

However, the path to a productivity-led growth model will involve some transitional costs. The series of tightening measures to reduce the reliance on low-cost foreign labour will confront businesses with supply-side induced *relative price* adjustments over the short term, which in turn will prompt shifts in production and consumption. Nevertheless, given adjustment lags, the *average level* of business costs and consumer prices could be subject to some upward pressure over the short term.

The supply-side adjustments will take place over several phases.

The adjustments arising from a tighter labour market over the next decade can be broadly divided into three phases.

In the initial cost adjustment phase, wage and other business cost pressures are likely to pick up. Overall GDP growth will be relatively unaffected, as firms rely on existing resources to fulfil orders.

In the consolidation phase, unit labour cost (ULC) will rise as productivity enhancement measures take time to bear fruit. Accordingly, a supply-side induced slowdown in growth may take place and wage costs could continue to be passed through to consumer prices.

In the sustainable phase, the economy will reap the fruits of the productivity-enhancement measures taken during the first two phases, possibly in the second half of this decade. GDP growth will pick up gradually, as firms become more efficient and capital-intensive. As productivity improvements kick in and wage pressures subside, ULC growth will moderate and other price pressures will start to come down in line with these adjustments.

The cost of adjustment will differ across sectors.

The impact of the first two phases of adjustment will vary across sectors and firms. Firms which rely heavily on labour (low capital-to-labour ratios) and have low profit margins will be confronted with larger increases in operating costs during this period, and will face greater challenges in absorbing them.

Consumer-centric firms in the food & beverage, and recreation, community & personal services sectors tend to have a high wage share of operating expenditure and lower profit margins. (Chart 3.23) Further disaggregation suggests that the SMEs (except for those in the healthcare sector) are, in general, more likely to be affected by the rise in wage costs than the bigger firms.

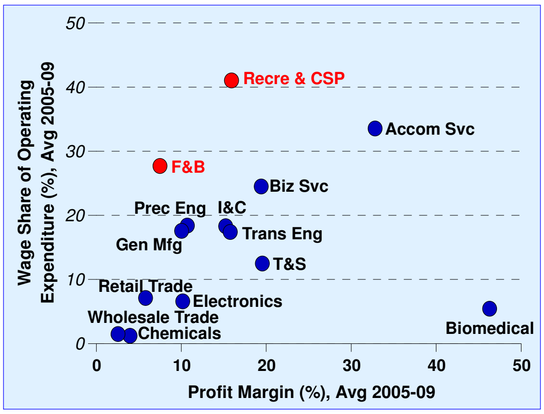
It is likely that these consumer-centric services firms will pass on some of the wage increases to consumers. However, given that these firms also face greater competition due to their sheer numbers, this could cap the extent of the pass-through. (Chart 3.24)

Notwithstanding these transitional pains, growth will be more sustainable when it is underpinned by productivity increases. This, however, will require specific sectors to step up efforts to retool the workforce for higher-value jobs. Services sectors in general have tended to lag behind in this respect. (Chart 3.25) While this may partly reflect the lower elasticity of substitution between capital and labour in the services industries, there is still scope for further automation and training of workers to enable them to take up higher-skilled jobs. (See October 2011 *Review* for details.)

A shift to slower but more sustainable productivity-driven growth will support rising real wages and standards of living.

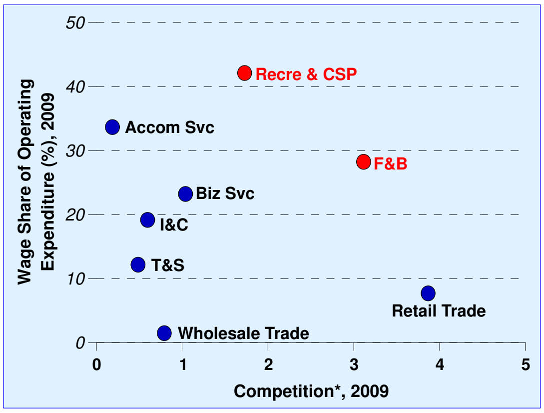
In sum, Singapore will face increasing supply-side constraints in the decade ahead. The next few years will be critical. It is important for workers to be re-skilled, while companies undertake the necessary investments in capital and productivity-enhancing work processes. Businesses must also tap on the existing pool of older workers more effectively. In the longer run, a productivity-driven growth model will be a better outcome for Singapore as it will provide sustainable increases in real wages, and higher living standards over time.

Chart 3.23
Wage Share and Profit Margins



Source: EPG, MAS estimates

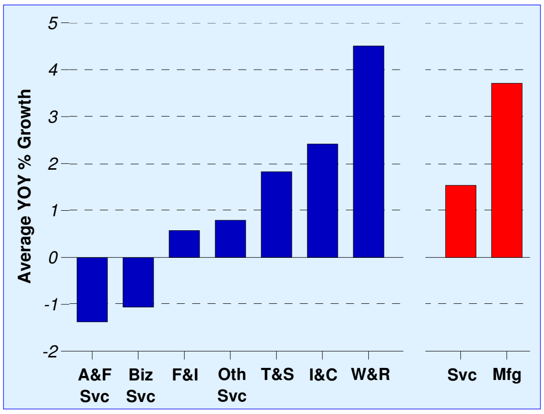
Chart 3.24
Wage Share and Competition in Services Sectors



Source: EPG, MAS estimates

* Competition is proxied by the number of establishments per unit of value added.

Chart 3.25
Trend Productivity Growth, 2000–11



Source: EPG, MAS estimates

Box A
The Short-term Wealth Effects of Property and Stock Prices in Singapore

In recent years, there have been sharp fluctuations in property and stock prices in many countries. This has attracted the attention of policymakers concerned about their implications for consumer expenditure, especially in the short term. Invariably, this has led to a renewed interest in the wealth effects of these commonly-held assets on consumer spending. Studies that have examined the empirical linkages between wealth and consumption have generally found a significant and positive relationship between them. Among these are Lettau and Ludvigson (2004) and Davies and Palumbo (2001) in the US, Fernandez-Corugedo *et al.* (2003) in the UK, and Tan and Voss (2003) in Australia. Many of these studies, however, use panel datasets, and the results obtained are likely to be sensitive to the choice of the countries that form the panel, as well as the time period used.

Heightened activity in the local property market in recent years and the increasing level of interest in the stock market, have also raised similar questions regarding the wealth effects of these assets in Singapore. This box item takes a closer look at the evidence for Singapore and utilises a time-series data approach. Contrary to the findings for the US, UK and Australia, neither stock nor property prices appear to have a significant impact on consumer expenditure in Singapore in the short term, and the results are consistent across quarterly and monthly samples.

Methodology

To capture the short-term wealth effects, the error-correction model (ECM) shown in equation (1) below was used. The ECM incorporates short-run dynamics as well as the long-run equilibrium relationship between real private consumption per capita and asset prices.

$$\Delta c_t = \alpha(\Delta y_t) + \beta(\Delta A_t) + \delta(\Delta m_t) + \gamma ECT_{t-1} + \varepsilon_t \quad (1)$$

In equation (1), c is the log of real private consumption per capita, y is the log of real GDP per capita, m is the log of real broad money supply per capita, A_t is the log of the asset price index, ECT is the error-correction term,[1/] and Δ is the first difference operator. To estimate the wealth effect of stock prices, the Straits Time Index (STI) is used as the asset price index, A_t. For property prices, the Property Price Index (PPI) was used.

Also, to capture asymmetric effects in asset prices ΔA_t is decomposed into its positive and negative components, and equation (1) is re-estimated with dummy variables as follows:

$$\Delta c_t = \alpha(\Delta y_t) + \beta^+\left(D_{pos} * \Delta A_t^+\right) + \beta^-\left(D_{neg} * \Delta A_t^-\right) + \delta(\Delta m_t) + \gamma ECT_{t-1} + \varepsilon_t \quad (2)$$

where $D_{pos}*\Delta A_t^+$ and $D_{neg}*\Delta A_t^-$ refers to positive and negative movements in the relevant asset market index, respectively. D_{pos} is a dummy variable that takes the value of one when changes are positive, and is zero otherwise, while D_{neg} takes the value of one when changes are negative, and is zero otherwise. Equation (2) is first estimated using quarterly data and then re-estimated with monthly data, but consumption per capita is replaced with retail sales[2/] and the real GDP per capita and real broad money supply per capita variables are excluded.

1/ The presence of a wealth effect on consumption is not inextricably linked to error-correcting behaviour in consumption. While the error-correction mechanism indicates the time needed for the long-run relationship to be restored after a shock, it tells us nothing about the magnitude of the wealth effect.

2/ The analysis was also conducted with sub-categories of retail sales, such as motor vehicles. However, cointegration tests were unable to detect the presence of a long-run relationship between these variables and the two asset prices.

Estimation Results

In Table A1, the first four rows present the main results for both equations using quarterly data, with β, β^+, and β^- signifying the appropriate short-term wealth effects. Monthly data is for the period from January 2000 to August 2011, with a slightly shorter estimation window for property prices due to the lack of monthly data on PPI before January 2004. For quarterly data, the estimation period is from Q1 1983 to Q2 2011.

The quarterly estimates of β in the first two rows show that there are no significant short-term wealth effects arising from either the stock or property market. However, when the asymmetric effects of asset price changes are included, a 1.0% increase in property prices in the short term is associated with a 0.12% fall in real private consumption per capita (row 4), but has no significant impact when property prices fall.[3/] This finding resonates with the arguments in Phang (2004) that anticipated house price increases have a dampening effect on aggregate consumption in Singapore, which can be attributed to the negative wealth effect of price increases on those seeking to enter the property market or to upgrade to better housing. Indeed, when total loans per capita is added to the model, the short-term wealth effect of rising property prices becomes insignificant.

For the monthly data with retail sales in place of consumption per capita, the short-term wealth effect is only significant for stock prices, with a 1.0% increase in stock prices leading to a 0.07% increase in the retail sales index (row 5). However, this result is sensitive to the estimation period used, as the short-term wealth effect disappears when the model is re-estimated from 2005 to 2011. Also, there are no discernible short-term asymmetric wealth effects for stock or property prices (see last two rows). In all cases, the coefficient on the error-correction term,[4/] denoted γ, is of the correct sign and statistically significant. Regression diagnostics also confirm that the models are correctly specified.

Table A1
Main Estimation Results

Asset	Eqn	β	β^+	β^-	γ
Using quarterly data					
Stock	1	0.027	-	-	−0.246*
Property	1	−0.041	-	-	−0.197*
Stock	2	-	0.071	−0.013	−0.246**
Property	2	-	−0.118***	0.124	−0.216***
Using monthly data					
Stock	1	0.068**	-	-	−0.048***
Property	1	0.206	-	-	−0.124**
Stock	2	-	0.086	0.057	−0.049***
Property	2	-	0.229	0.185	−0.128***

Note: Standard errors are based on the Newey-West heteroskedasticity-adjusted covariance estimator.
*** Statistically significant at the 1% level.
** Statistically significant at the 5% level.
* Statistically significant at the 10% level.

3/ In the ECM without the asymmetric effects of property prices (results reported in the second row of Table A1), the wealth effect of property prices is also negative (β = −0.041), although this was not statistically significant.

4/ The long-run parameters of the cointegrating regression for all the models are estimated using single equation OLS.

Sum-up

This box item has used an error-correction model to investigate the relationship between stock and property prices and consumer expenditure in Singapore. Our findings suggest that there is little evidence that stock or property prices have significant effects on consumer expenditure in the short term. Although stock prices appear to have some impact when monthly data is used, this was sensitive to the estimation period chosen. Moreover, while a negative wealth effect was observed in the property market using quarterly data, this was no longer significant when total loans per capita was added to the model.[5/] Nonetheless, the findings in this box item should be taken as tentative since a more complete analysis of wealth effects requires appropriate controls for socioeconomic characteristics, and agents' expectations that may affect both expenditure and wealth.

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Phang, S Y (2004), "House Prices and Aggregate Consumption: Do They Move Together? Evidence from Singapore", *Journal of Housing Economics*, Vol. 13(2), pp. 101–119.

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[5/] These findings are generally consistent with those of Abeysinghe and Choy (2007).

3.3 Labour Market

Labour Market Tightness to Persist

Although employment is likely to grow at a slower pace in 2012, the labour market will remain tight because of greater supply constraints, in part reflecting further tightening of the foreign labour policy. As such, the resident unemployment rate this year could remain low at around its current level of 2.9%, while resident wage growth is expected to be firm.

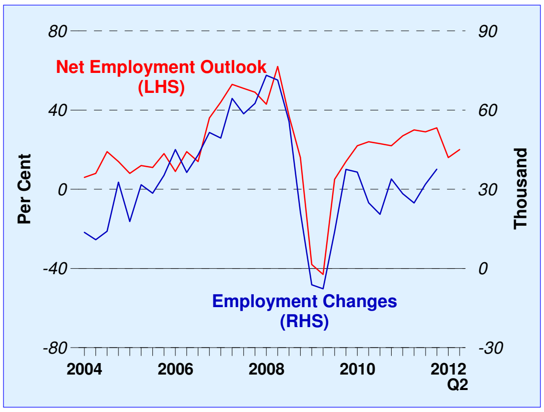
Labour demand will pick up gradually from the low in Q1 2012 ...

Employment growth likely weakened in Q1 2012 following retrenchments in the trade-related segments. However, there are early signs that hiring sentiment is gradually improving in tandem with the more positive economic outlook. The latest Manpower Employment Outlook survey, for instance, shows a slight uptick in hiring sentiment in Q2 2012 compared to Q1, led by construction, wholesale & retail trade and public administration & education. (Chart 3.26) The latter, in particular, was the most optimistic in hiring expectations.

... with services forming the bulk of employment gains.

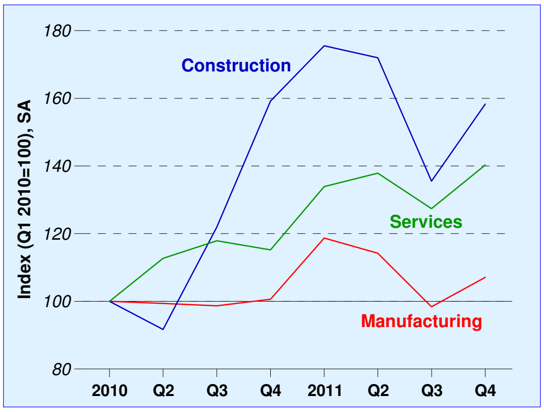
Job creation in services, especially in the domestic-oriented industries, will provide underlying support to the labour market, and help absorb workers retrenched from other sectors. Indeed, the number of vacancies in the services sector remained high in Q4 2011. (Chart 3.27) At the same time, the low resident unemployment rate suggests that a substantial number of foreigners will be needed to fill jobs in services and construction. Nonetheless, the continued tightening of foreign labour policy will slow the inflow of foreign workers from the average of 88,400 p.a. over the last five years. In 2012, hiring of employment pass holders (EPH) will be restricted by higher qualifying salaries and education criteria, while the increase in work permit holders (WPH) will be moderated by the hike in foreign worker levies and the new Dependency Ratio Ceilings (DRC).[5] (Table 3.3)

Chart 3.26
Net Employment Outlook and Total Employment Change



Source: ManpowerGroup

Chart 3.27
Vacancies by Sector



Source: EPG, MAS estimates

Table 3.3
DRCs across Sectors

Dependency Ratio Ceilings (DRC)		
	Manufacturing	Services
Current	65%	50%
July 2012	60%	45%
S Pass Sub-DRC		
Current	25%	
July 2012	20%	

5 Companies that are already at or above the new DRCs will not be able to bring in any more WPHs or S Pass holders from July 2012. Companies that have already exceeded the quota will be given until June 2014 to comply with the new DRCs.

Wage growth will be firm this year, but lower than in 2011.

Resident wage growth likely eased further in Q1 2012. While wages are expected to pick up subsequently amid the tight labour market, the increase will be more moderate compared to that in 2010 and H1 2011. (Chart 3.28) The series of upward wage revisions announced this year in community, social & personal services and transportation & storage are responses to the difficulty of filling up vacancies in these sectors.[6] For the economy as a whole, competition for resident workers is set to keep resident wage growth in 2012 at around its historical average. With labour productivity growth remaining subdued, unit labour cost will continue to rise in 2012, albeit at a more moderate pace than in 2011.

Over the medium term, the labour market will be tight ...

In the years ahead, the labour force participation rate (LFPR) will come under increasing downward pressure as a larger share of residents move into the older age groups where participation rates are markedly lower. (Chart 3.29) Coupled with a tighter immigration policy, resident labour force growth will slow considerably, keeping labour supply fairly constrained.

Nonetheless, recent developments in the labour market could ameliorate the structural slowdown in labour force growth. In particular, there has been a secular trend of rising part-time employment that could boost the LFPR. The share of part-time workers in resident employment has grown from 6.3% in 2006 to 9.7% in 2011, representing almost 200,000 resident workers. (Chart 3.30) This trend is expected to continue as rising demand for workers in the hospitality-related and retail trade segments, with their prevalence of flexible working arrangements and shorter working hours, attract older workers and residents currently outside the labour force.

Chart 3.28
Resident Unemployment Rate and Nominal Wage Growth

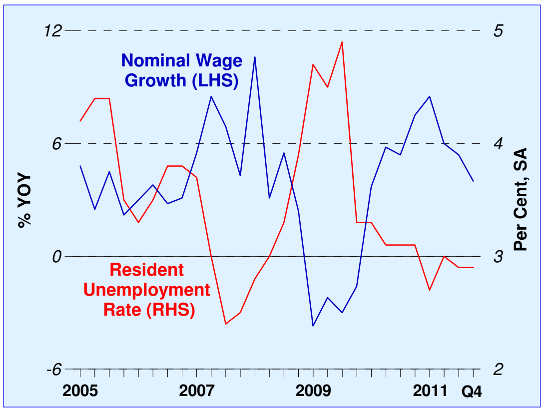


Chart 3.29
Distribution of Resident Labour Force by Age

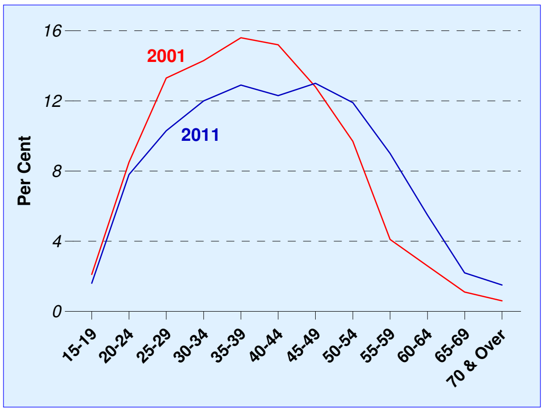
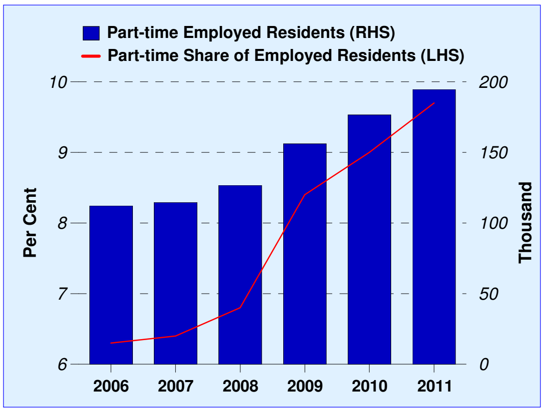


Chart 3.30
Residents Employed on Part-time Basis

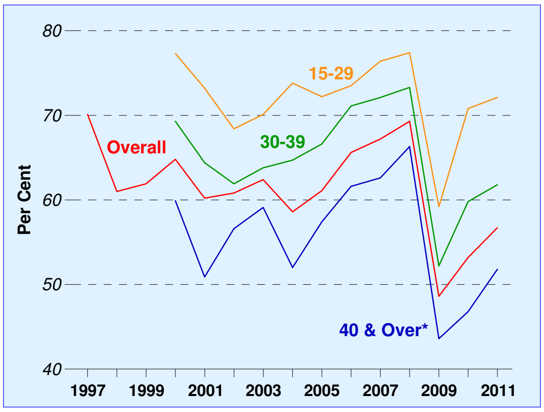


6 This includes wage adjustments for bus drivers as well as workers in healthcare, social work and public administration.

In addition, the FY2012 Budget announcement of higher employer CPF contributions for Singaporeans aged 50-65 could encourage older workers to stay in the workforce, while subsidies to firms for hiring older workers (Special Employment Credit) will complement it by increasing the demand for such workers.[7]

The SEC will also be helpful in increasing the employability of older retrenched workers. The inability of retrenched workers over 40 years of age to find work following the Global Financial Crisis was the main reason why the overall re-entry rate into employment has remained below its pre-crisis average. (Chart 3.31)

Chart 3.31
Rate of Re-entry into Employment of Retrenched Resident Workers by Age

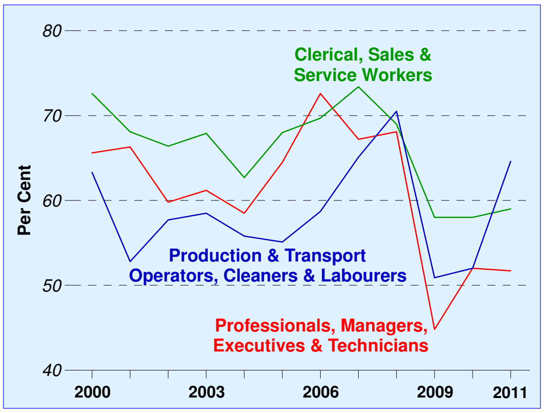


* Data prior to 2008 are EPG, MAS estimates.

... and push up residents' wages, including that of low-skilled workers.

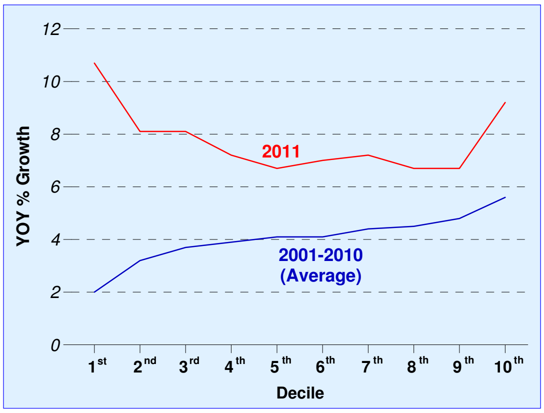
However, the data also shows that the re-employment rate of residents in lower-skilled occupations has recovered strongly compared to that of their high-skilled counterparts. (Chart 3.32) This is in spite of the fact that almost two-thirds of all low-skilled resident workers are above 50 years of age, where employability is low as discussed above.[8] This suggests that the demand for low-skilled workers is strong, or supply is particularly constrained.

Chart 3.32
Rate of Re-entry into Employment of Retrenched Resident Workers by Occupation



Together with the revised foreign labour policy, which is relatively skewed against low-skilled foreign workers, the large share of older residents that will soon retire from low-skilled jobs will severely constrain their supply. Thus, relative wages of low-skilled workers in Singapore could rise more rapidly over the medium term. Indeed, the wage growth of the bottom deciles outstripped that of higher income workers in 2011—a stark change from the trend in the preceding decade. (Chart 3.33)

Chart 3.33
Average Monthly Household Income from Work per Household Member



7 A Special Employment Credit (SEC) will be provided to employers for their Singaporean workers aged 50 and above and earning up to $3,000 per month. The SEC will be 8% of wages. A smaller SEC will also be provided for workers with a monthly wage of between $3,000 and $4,000. The SEC will cover almost 350,000 workers, or four-fifths of older Singaporean workers.

8 Low-skilled resident workers are defined as those that have less than a full secondary school education.

3.4 Inflation

Core Price Increases will Moderate to their Historical Average

Higher wages and global oil prices will support core inflationary pressures.

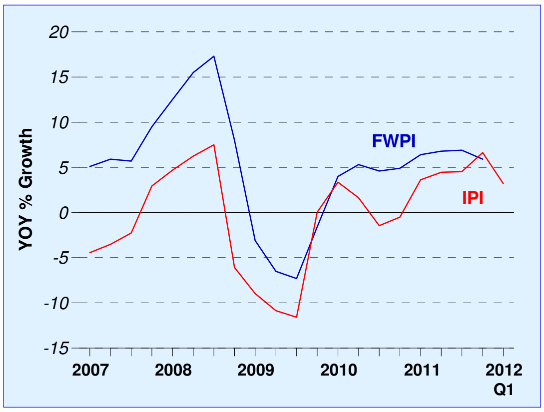
The strong consumer price increases in early 2012 were the result of the pass-through of cost pressures accumulated over the previous two years. While the pace of subsequent price increases will ease from the high seen earlier this year, overall inflation will remain firm.

Notably, the interaction between the cyclical demand uplift and tight resource constraints will support business costs and lead to some further price increases, especially in the services sector.

On the external front, geopolitical tensions could keep global oil price pressures elevated. However, other imported inflationary pressures should stay benign before picking up moderately towards the end of the year when the global economic recovery is expected to be stronger. (Chart 3.34)

Cumulatively, these developments will lead to sequential MAS Core Inflation that is close to its historical average. On a y-o-y basis, both CPI-All Items inflation and MAS Core Inflation are expected to remain elevated and ease only gradually over 2012.

Chart 3.34
Foreign Wholesale Price Index and Singapore's Import Price Index

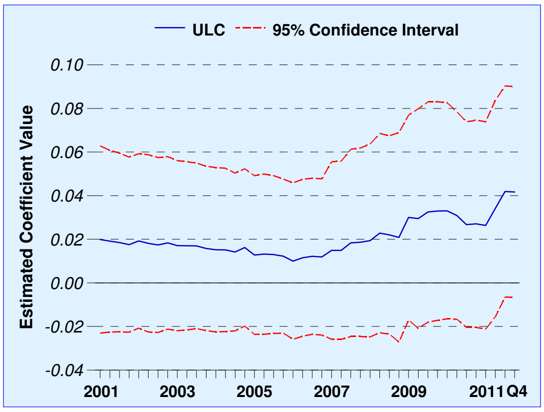


Note: Foreign Wholesale Price Index is computed from the wholesale price indices or producer price indices of Australia, China, France, Germany, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, the Philippines, Taiwan, Thailand, UK and US, and is weighted by the share of Singapore's imports from these economies.

Rising labour costs and resilient domestic demand will increase services fees further, but at a more moderate pace.

The strong sequential increases in services fees in late 2011 and early this year was a consequence of the widespread pass-through of pent-up costs in the face of resilient consumer demand. Indeed, EPG's empirical research suggests that the estimated short-run pass-through coefficient of ULC to CPI inflation has risen slightly in recent quarters.[9] (Chart 3.35) However, the long-run ULC coefficient has remained stable, suggesting that the pickup in the pass-through effects may only be temporary.

Chart 3.35
Short-run Pass-through Coefficient of ULC to CPI Inflation

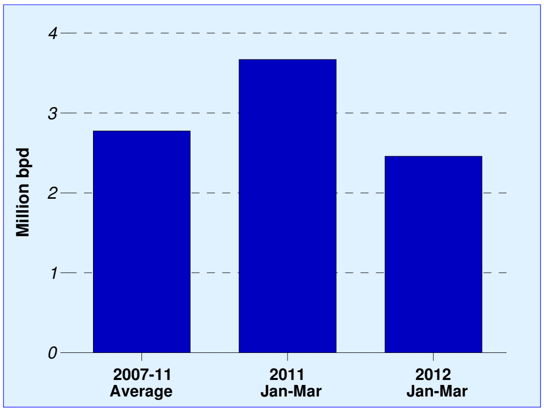


Source: EPG, MAS estimates

9 The pass-through effects of the S$NEER on the CPI encompasses two stages: from foreign prices to domestic import prices, and the transmission from domestic import prices to the CPI. A system of error-correction models was used to capture the long-run relationships, as well as short-run dynamics between the CPI, foreign prices, the S$NEER, and ULC. The short-run coefficients were estimated recursively to capture changes as new information is incorporated.

For the rest of the year, given the anticipated rise in wages, there could be further services fee adjustments, especially in H2 2012. Nevertheless, in view of the considerable cost pass-through that has already taken place, further price increases will be more moderate than in Q1, especially as wage pressures have subsided from the high in 2010 and H1 2011. For the whole of 2012, services inflation will probably average around 3%, up from 1.6% last year.

Chart 3.36
OPEC Surplus Oil Production Capacity

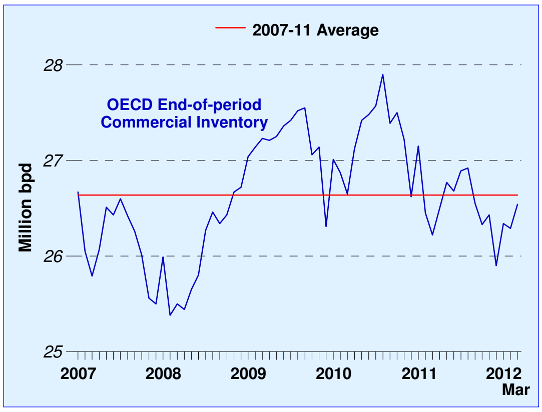


Source: EIA

Geopolitical tensions will keep global oil prices elevated.

The improving economic outlook, particularly in the US, is expected to support global oil demand this year. At the same time, there has been a spate of supply disruptions resulting in low surplus production capacity in OPEC and below-average inventories in the OECD countries. (Charts 3.36 and 3.37)

Chart 3.37
OECD Commercial Oil Inventories



Source: EIA

The International Energy Agency (IEA) estimated that Iran's oil exports could be curtailed by slightly below one million barrels per day from July 2012, when the EU embargo is implemented and broader US and EU economic sanctions on the Iranian central bank take effect.

With this in mind, the US Energy Information Administration (EIA) now expects the price of the WTI benchmark to rise further in H2 2012 and average US$106 for the whole of 2012. This was higher than the US$100 forecast made two months ago. Based on this price assumption, the prices of direct oil-related items in the CPI will rise by close to 10% this year, slightly lower than the increase in 2011.

However, an escalation in geopolitical tensions surrounding Iran constitutes the greatest risk to the oil price forecasts as there is little buffer among OPEC suppliers to ramp up production in the short term.

Domestic retail food prices will edge up due to the pass-through of business cost increases.

The moderation in global food prices throughout most of 2011 will continue to dampen imported food inflation. (Chart 3.38) Nevertheless, domestic retail food prices will likely rise moderately on a sequential basis for the rest of the year, as firms continue to pass on higher business costs to consumers. In addition, there are other latent food commodity price increases that have yet to filter through to consumer prices. For instance, the spike in Thai rice prices following the flood late last year has yet to be fully reflected in retail prices, as supermarkets promised to hold house-brand prices stable until the end of June.

For the whole of this year, food inflation is projected to ease only slightly from the 3.1% in 2011.

Accommodation cost will be the largest contributor to inflation given tight supply in the HDB segment.

Demand for rental housing will increase given the continued, albeit lower, foreigner worker inflows. On the supply side, the number of newly completed private residential units in 2012 is expected to be almost double the average in the past ten years. This will, in turn, gradually exert downward pressure on private residential property rentals.

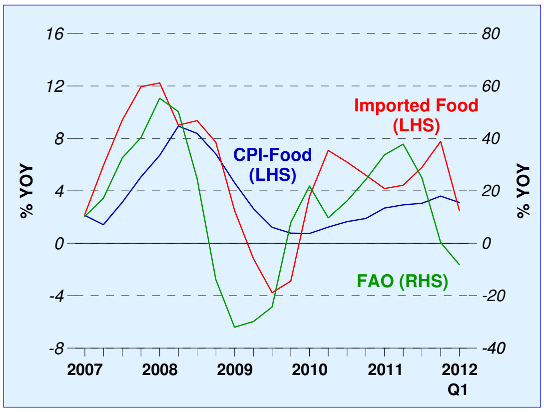
In the HDB segment, however, the increase in demand for rental flats will come up against tight supply. As such, HDB leasing contracts will continue to be renewed at rental rates that are considerably higher than those under existing contracts.

Overall, the rise in accommodation cost, on a year ago basis, will moderate slightly from 9.4% in 2011. Nonetheless, it will remain the largest contributor to CPI-All Items inflation this year.

Car prices could rise if there is a further sharp cut in COE quotas.

After falling in December 2011 and January 2012, average car COE premiums surged by 30%, reaching a record high of $74,351 in April. This resulted from a pickup in buying interest, buoyed by the launch of new luxury models. In addition, there were rising concerns over the likelihood of another sharp cut in COE supply in August, possibly to a record low, should

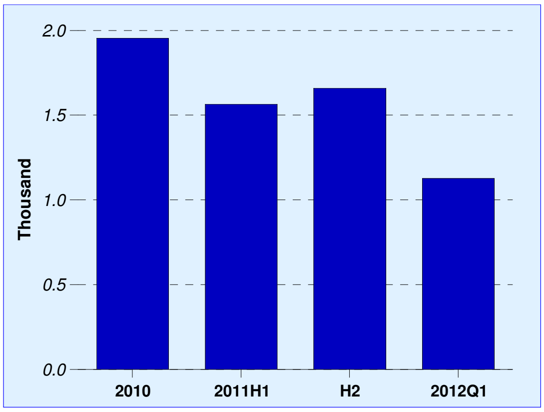
Chart 3.38
FAO, IPI and CPI Food Inflation



Source: FAO

the recent weakness in car de-registration persist. (Chart 3.39) In this instance, car COE premiums could rise even further in H2 2012. EPG's current projection is for private road transport cost, excluding petrol, to rise by around 10% this year, on the back of a 16% increase in 2011.

Chart 3.39
Average Monthly Car De-registrations



CPI-All Items inflation and MAS Core Inflation forecasts have been revised upwards.

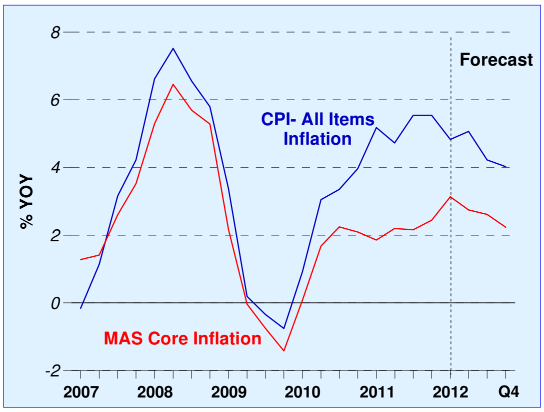
Gradually improving economic growth prospects, coupled with tightness in the labour market, will lead to further price increases in the economy. The contributions to CPI inflation, however, are varied.

Relative to the historical average, the CPI-All Items will rise more quickly at around 1% q-o-q for the rest of the year, led by residential property rentals and COE premiums. MAS Core Inflation will continue to rise at close to its past ten-year average of 0.4%.[10]

In y-o-y terms, CPI-All Items inflation and MAS Core Inflation will ease modestly through the year but along somewhat elevated trajectories. CPI-All Items inflation could average around 5% in H1 before easing in H2 2012. (Chart 3.40) MAS Core Inflation will likely moderate gradually over the course of the year to around 2.5% in Q4.

For the year as a whole, CPI-All Items inflation is now expected to be 3.5–4.5% while MAS Core Inflation will likely be in the range of 2.5–3.0%, up 1% point, in both cases, from the earlier forecasts. The revision in the CPI-All Items inflation forecast reflects higher-than-expected contributions from prices of cars, services and oil. Accommodation cost will still be the largest contributor, adding more than one-third to CPI-All Items inflation in 2012, while prices of cars, services and commodity-related items will each account for one-fifth.

Chart 3.40
CPI-All Items Inflation & MAS Core Inflation Forecasts



Source: EPG, MAS estimates

[10] For a detailed review of MAS Core Inflation, refer to Ong, D, Soo, C G, Choy, K M and Ng, B E (2011), "A Review of the Core Inflation Measure for Singapore", *MAS Staff Paper* No. 51.

3.5 Assessing the Macroeconomic Policy Mix

Monetary Policy

The monetary policy stance was tightened in April 2012 in view of sustained inflationary pressures.

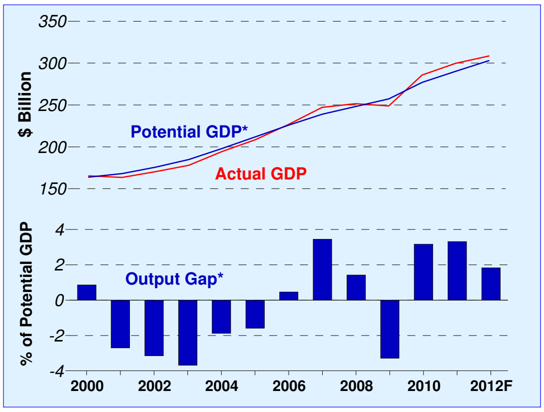
Following the slowdown in H2 2011, economic activity in Singapore picked up in Q1 this year, with GDP expanding by 9.9% on a q-o-q SAAR basis. This was underpinned by the recovery in electronics manufacturing and trade from the supply disruptions late last year. The services sector was also supported by strong growth in the financial and tourism industries. Although demand from the advanced economies is expected to remain fairly muted, the tail risks to the global economy have receded in view of the ECB's longer-term refinancing operations (LTRO) and the successful Greek debt swap. Meanwhile, domestic demand will continue to buttress growth in Asia ex-Japan. Against this backdrop, the Singapore economy will expand at a modest pace of 1–3% this year.

Core inflation has risen and is expected to stay relatively firm in the near term. Notably, imported inflationary pressures are likely to be sustained by the rise in global oil prices. The output gap, while narrowing from an estimated 3.3% in 2011, is still projected to average over 1% of GDP this year. (Chart 3.41) Thus, the labour market remains tight even though resource utilisation and wage growth could moderate. Some short-term cost-push inflation will reflect supply-side constraints coming through higher foreign worker levies and the reduction in foreign worker Dependency Ratio Ceilings. For 2012, CPI-All Items inflation and MAS Core Inflation are projected to be 3.5–4.5% and 2.5–3.0%, respectively.

Accordingly, MAS announced on 13 April 2012 that it would maintain the modest and gradual appreciation of the S$NEER policy band. The slope of the policy band was increased slightly, with no change to the level at which it was centred. The width of the policy band was also restored to its narrower setting.

This re-calibration of the policy stance also reflected the medium-term impact of the supply-side restructuring that is taking place in the Singapore

Chart 3.41
Real GDP and Output Gap



* EPG, MAS estimates.

economy. While changes in the foreign worker policy are necessary to ensure a more efficient allocation of resources and a more productive workforce over the medium term, the latter will take time to come to fruition. Business costs are thus likely to increase somewhat during the transition period and some of these changes in relative factor costs will need to filter through the economy before productivity gains catch up and offset these cost increases. The tighter monetary policy stance adopted in April 2012 is, therefore, intended to temper, but not fully offset, the pass-through of these supply-side cost increases, while at the same time address the present cyclical tightness in some factor markets.

The latest monetary policy announcement is thus a measured move to facilitate ongoing supply-side adjustments, while simultaneously anchoring inflation expectations and keeping growth on a sustainable path.

Fiscal Policy

The FY2012 Budget focused on medium-term supply-side and social issues.

Budget FY2012 was delivered at a time when the Singapore economy is undergoing important structural changes. As the economy is expected to continue expanding, albeit at a more modest pace this year, the Budget focused on medium-term initiatives tackling supply-side and social challenges, rather than short-term measures to boost demand. More specifically, the Budget aimed to build up the long-term capacity of the economy, strengthen the structure of social support, and alleviate frictional costs during the economy's transition. The key Budget measures are listed in Table 3.4.

There were measures to support economic restructuring and enhance productivity growth ...

The FY2012 Budget continued with measures to build up the long-term capacity of the economy by enhancing productivity growth. Further efforts were made to reduce Singapore's dependence on foreign workers via a calibrated reduction in Dependency Ratio Ceilings and increases in the foreign worker levy. By raising the relative price of low-skilled foreign labour and restricting their supply, it is hoped that firms will adjust their hiring and investment decisions towards re-training staff, employing higher-skilled workers and/or investing in productivity-enhancing equipment.

Other measures to help businesses restructure and adapt to the new landscape of a tight labour market include enhancements to the Productivity and Innovation Credit Scheme introduced two years ago. The enhanced scheme allows businesses to get more cash payouts faster when they invest in productivity-enhancing activities, such as research and development, innovation, automation and training. There was also increased support for SMEs to train and upgrade their workers and to develop new capabilities. For example, the government will provide higher subsidies for selected training courses and increase the absentee payroll for SMEs.

The restructuring of the economy also requires some business consolidation and acquisition to take advantage of economies of scale, acquire new capabilities and raise overall industry productivity. In this respect, a 200% tax allowance will be given to SMEs on the transaction costs incurred during business consolidation. Further, the Budget introduced measures to help companies internationalise their operations through project financing, trade financing, and double tax deduction.

... and to increase support for the vulnerable groups in our society.

Important measures were introduced in this Budget to increase support for the economically and socially vulnerable households—the elderly, the disabled, and lower-income families.

New initiatives were put in place to incentivise firms to hire and retain older workers and raise retirement savings. For example, the government is providing a Special Employment Credit (SEC) from 2012 to 2016, which will subsidise 8% of the wages of workers aged 50 and above, for those with monthly incomes of up to $3,000.

At the same time, the Budget aimed to improve the medical infrastructure, as well as the capacity, quality and affordability of a wide range of health services. These include plans to significantly step up the development of the intermediate and long-term care (ILTC) sector. With the first cohort of Singapore's baby boomers turning 65 years old in 2012 and the pace of population ageing accelerating, the government is doubling its annual expenditure on healthcare from $4 billion to $8 billion over the next five years.

The Budget also aimed to improve social outcomes for the disabled at different stages of life. A Development Support Programme was introduced to strengthen early intervention and education for children with special needs, while higher subsidies would be provided to improve adult care for the disabled. In addition, the SEC was extended to employers hiring workers with disabilities.

The GST Vouchers institutionalises previously ad hoc social support measures, thus providing greater certainty to the lower- and middle-income households. Comprising cash handouts, Medisave top-ups and utility rebates (U-Save), the Vouchers form the cornerstone of the government's permanent assistance scheme that will provide relief to needy households in a targeted way. To improve social mobility, education opportunities for children from low-income families have also been enhanced. For example, subsidies for pre-school education and the MOE Financial Assistance Scheme were expanded, with the latter benefiting 40,000 more students.

The Budget provided relief to alleviate transition costs.

The reconfiguration of business and social support structures will take time. On the former, hiring and investment planning, and the productivity gains to be reaped therein, will only bear fruit in the medium term. However, firms are already bearing the frictional costs of adjustment currently. It was thus appropriate that the Budget provided measures to alleviate these transition costs. For example, SMEs will receive a one-off cash grant capped at $5,000 to offset higher business costs during the economic slowdown.

On the social front, it was recognised that boosting retirement savings by raising the employer and employee CPF contribution rates for workers aged 50–65 could have the unintended effect of reducing older workers' take-home pay or disincentivise employers from hiring older workers. The government therefore took a holistic approach such that the burden of CPF adjustments is offset by the SEC, higher Earned Income Tax Relief, GST Vouchers, enhanced medical subsidies, and other measures.

Table 3.4
Key Initiatives of the FY2012 Budget

Economic Restructuring and Raising Productivity
• Reduction in Dependency Ratio Ceilings (DRC) for foreign workers • Enhancements to Productivity and Innovation Credit (PIC) Scheme (increase in cash payouts and more frequent payouts) • Enhanced training support for SMEs and self-employed persons (through increased course subsidies and absentee payroll cap) • Increased grants for capability development for SMEs ($200 million over the next three years) • Enhanced Special Employment Credit (SEC) to encourage employers to employ older Singaporean workers ($470 million per year) • One-off cash grant to help companies offset higher business costs ($320 million in FY2012) • Helping companies internationalise through project financing, trade financing and political risk insurance, and double tax deduction • Support for the tourism and marine & offshore sectors to enhance their competitiveness
Building a Fair and Inclusive Society
Rewarding Work for Elderly • Higher CPF contribution rates for older workers • Doubling of Earned Income Tax Relief for older workers ($30 million per year) *Helping Seniors Unlock Savings* • Silver Housing Bonus for elderly Singaporeans who sell their existing flats and move to 3-room and smaller flats or Studio Apartments • Enhanced Lease Buy back Scheme (LBS) *Stronger Healthcare Support* • More hospital beds • Expansion of long-term and community-based care • Higher subsidies in the Intermediate and Long-Term Care (ILTC) Sector • Grant for hiring a foreign domestic helper to care for an elderly member at home • GST absorption for subsidised patients in the ILTC Sector • Enhancement for Active Seniors (EASE) Programme—subsidies for installing elderly-friendly features in homes ($260 million over 10 years) • Medifund Top-up ($600 million) • One-off Medisave Top-up *Supporting Singaporeans with Disabilities* • Development Support Programme (DSP) to provide learning support intervention for pre-school children with mild speech, language and learning delays • Extension of Special Employment Credit (SEC) to employers that hire Persons With Disabilities (PWD) who have graduated from VWO-run Special Education (SPED) schools • Extension of Workfare Income Supplement (WIS) to all PWDs who have graduated from VWO-run SPED schools • Doubling of Handicapped Earned Income Tax Relief • Increased capacity of Day Activity Centres for the disabled and disability homes *Uplifting Low-income Families* • Extension of pre-school subsidies • Raising of household income ceiling for the MOE Financial Assistance Schemes • Top-ups to School Advisory Committees/School Management Committees Funds • Enhancement of the Student Care Fee Assistance (SCFA) Scheme (increased monthly household income ceiling, and new per capita household income criterion) • Top-ups to Edusave Endowment Fund ($200 million), ComCare Endowment Fund ($200 million) and Community Organisations • GST vouchers in the form of cash, Medisave and utility rebates ($3.6 billion over FY2012–16)
Enhancing Transport System
• Boosting the capacity of the public bus system • Carbon Emissions-based Vehicle Scheme (CEVS) to give rebates to cars with low carbon emissions • Lowering of special diesel tax for Euro V vehicles • Removal of Additional Transfer Fee (ATF) levied on used-vehicle transactions

Table 3.5
Budget Summary

	FY2011 Revised		FY2012 Budgeted	
	$ Billion	% of GDP	$ Billion	% of GDP
Operating Revenue	50.5	15.1	53.1	15.0
Total Expenditure	47.5	14.2	50.3	14.2
Operating Expenditure	35.9	10.7	37.5	10.6
Development Expenditure	11.7	3.5	12.8	3.6
Primary Surplus/Deficit (–)	**3.0**	**0.9**	**2.8**	**0.8**
Less: Special Transfers (excluding top-ups to endowment/trust funds)	3.1	0.9	1.5	0.4
Basic Surplus/Deficit (–)	**(0.1)**	**0.0**	**1.3**	**0.4**
Add: Net Investment Income/Returns Contribution	7.9	2.4	7.3	2.1
Less: Special Transfers (top-ups to endowment/trust funds)	5.5	1.6	7.4	2.1
Budget Surplus/Deficit (–)	**2.3**	**0.7**	**1.3**	**0.4**

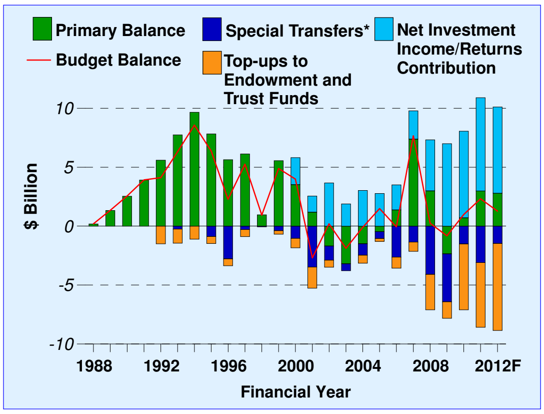
A small budget surplus is projected for FY2012.

In FY2012, the government is projected to post a small budget surplus, amounting to $1.3 billion or 0.4% of GDP. (Table 3.5 and Chart 3.42) The basic balance, which is the primary balance less special transfers but without taking into account top-ups to endowment and trust funds, is estimated to be $1.3 billion. Notably, in this Budget, substantially more funds have been set aside in endowment and trust funds for future spending. This largely reflected the newly-created GST Voucher Fund and top-up to the existing Special Employment Credit Fund, which amounted to $3.0 billion and $2.4 billion, respectively, to finance the payouts under these schemes over the next five years. There were also top-ups to the Medical Endowment Fund, Community Care Endowment Fund and Edusave Endowment Fund to augment the government's capacity for long-term investment in healthcare, social assistance and education.

The fiscal impulse implies a slightly contractionary stance in 2012.

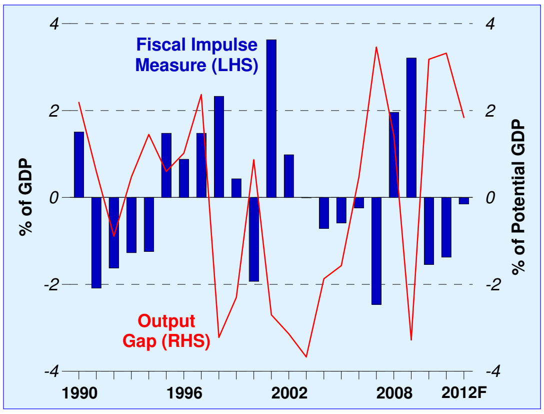
The fiscal policy stance is estimated to be slightly contractionary, with the fiscal impulse measure at around −0.2% of GDP. Given that the output gap is still positive, this policy stance is appropriate for the economy during this stage of the business cycle. (Chart 3.43)

Chart 3.42
Components of the Budget



* Excluding top-ups to endowment and trust funds.

Chart 3.43
Fiscal Impulse Measure and the Output Gap



Source: EPG, MAS estimates

The FI measure provides an indication of the short-term aggregate demand stimulus arising from fiscal policy, but does not fully quantify the impact of the budget on the economy. To assess the effects of Budget FY2012 on GDP and consumer prices over 2012–13, EPG simulated some of the key measures that would affect households and firms using the Monetary Model of Singapore (MMS). (Table 3.6)

The combined macroeconomic effects of these measures affecting households and firms are reported in Table 3.7. The results show that GDP growth would be boosted by about 0.13% point from the baseline, with the bulk of this coming from an increase in private consumption due to the cash and U-Save components of the permanent GST voucher system. Concomitantly, the additional spending by households will only impact the CPI marginally.

To help older workers better prepare for their retirement, the CPF contribution rates for workers aged 50 years and above will be increased from 1 September 2012. To soften the impact of the higher CPF contribution rates and to encourage firms to hire older workers, the government enhanced the SEC scheme and provided a one-off cash grant to SMEs. The model simulation results show that these relief schemes would more than offset the negative impact on GDP caused by higher CPF contribution rates. In addition, they would help to alleviate business costs, thereby translating into lower consumer prices eventually.

Overall, the simulated measures of Budget FY2012 are estimated to have a largely neutral impact on the economy this year.

Table 3.6
Budget FY2012 Measures Simulated in MMS

$ million

Measures	**Amount in 2012**	**Amount in 2013**
Affecting Households		
GST Voucher: Cash	380	380
GST Voucher: U-Save	88	175
Affecting Firms		
Higher CPF rates	48	190
Special Employment Credit	353	470
SME Cash Grant	240	80
Total	**1,100 (0.3% of GDP)**	**1,300 (0.4% of GDP)**

Table 3.7
Impact of Selected Budget Measures on GDP Growth and CPI Inflation

% point deviation

	2012	**2013**
GDP Growth	0.13	−0.02*
CPI Inflation	0.01	0.08

* The measures will raise GDP levels in 2012 and 2013. However, with the higher GDP level in 2012, GDP growth in 2013 will be lower than the baseline.