3.1 External Outlook

The Global Economy in Recovery

The drivers of global growth are broadening.

Since the last *Review*, the global economic recovery has gained traction and growth projections for Singapore's major trading partners in 2010 have been upgraded. (Table 3.1) The rising optimism for 2010 is attributable to several factors. In particular, the rapid turnaround in economic activity in H2 2009 has bolstered consumer and business confidence. Thus, even as the initial inventory-related boost peters out, new orders for both manufactured goods and services will continue to expand robustly. (Chart 3.1) There is also some evidence that Asia ex-Japan, and to a lesser extent the US, are transiting from public sector- to private sector-driven growth as stimulus measures are gradually withdrawn.

Notwithstanding the general optimism, there is likely to be significant variation in economic performance across regions. Notably, Asia ex-Japan will lead the global recovery, while growth in a number of the industrial economies is projected to be significantly below potential.

Table 3.1
Forecasts of GDP Growth

(%)

	2009	2010	2011
Total*	-0.8	4.3	4.2
Industrial Countries*	-3.5	2.2	2.3
US	-2.4	3.2	3.1
Eurozone	-4.1	1.2	1.5
Japan	-5.2	2.2	1.6
NIE-3*	-1.8	5.1	4.5
Hong Kong	-2.7	4.9	4.5
Korea	0.2	5.1	4.2
Taiwan	-1.9	5.3	4.6
ASEAN-4*	0.4	5.3	5.2
Indonesia	4.5	5.8	6.0
Malaysia	-1.7	5.5	5.0
Thailand	-2.3	4.9	4.7
Philippines	0.9	3.7	4.4
China	8.7	9.9	9.0
India	6.4	8.1	8.3

Source: Consensus Economics Inc.
* Weighted by shares in Singapore's NODX.
Note: 2009 figures are actual growth rates.

Industrial economies will continue to experience an uneven recovery …

Among the industrial economies, growth in the US will continue to outpace Japan and the Eurozone, particularly if monetary and fiscal policies remain relatively more accommodative. More than 50% of the fiscal package under the 2009 American Recovery and Reinvestment Act has yet to be spent, while a number of key stimulus provisions, such as unemployment benefits and the first-time home buyers' incentive, have been extended into 2010. Along with the improvement in labour market conditions, these will support the near-term outlook for consumer and business spending, as well as industrial production. (Table 3.2)

Nonetheless, the future for the housing market remains uncertain and could dampen sentiment. Expectations of a residential construction rebound have been toned down given the weak housing market in recent months.

Chart 3.1
J.P. Morgan Global Manufacturing New Orders and New Business in Services Indices

Source: Markit Economics

Indeed, the number of private housing starts fell in February 2010 after rising in January. (Table 3.2) This occurred even in some geographical districts that were relatively unaffected by the severe winter. Overall, the US economy is expected to grow by 3.2% this year.

The immediate prospects for Japan are generally sanguine. As its major export markets, especially in Asia, are set to grow strongly, Japan's external sector should be well supported. The latest Tankan survey indicates that fewer large manufacturers, typically export-oriented, are as pessimistic about the outlook compared to six months ago. This is, however, counter-balanced by sluggish domestic demand, given deflation and a weak labour market – the job offers to applicants ratio remains near its all-time low. (Chart 3.2) Overall, Japan's economic growth forecast for 2010 has been revised up to 2.2%, from 1.5% six months ago.

In contrast, confidence is faltering in the Eurozone given concerns over sovereign debt and fiscal sustainability. The unemployment rate has also risen to a 13-year high of 10%, exceeding even that of the US. Concomitantly, the ZEW Survey of Economic Expectations in the Eurozone fell to an average of 47.5 in the first four months of the year, from 52.2 in Q4 2009. In Germany, while buoyant export demand has somewhat mitigated the economy's decline relative to the rest of the Eurozone, sentiment has deteriorated and domestic demand remains weak. (Chart 3.3) The Eurozone economies are projected to expand by 1.2% in 2010, a touch above the forecast made six months ago.

In sum, the recovery in the industrial economies is uneven. Government support has given private demand time to heal while firm external demand has bolstered exports. Going forward, growth could surprise on the upside if private demand recovers more firmly. In this respect, the outlook for the US is more promising, while the need for fiscal consolidation in the Eurozone and continued deflation in Japan could constrain the recovery in domestic demand.

... while the economic expansion in Asia will be underpinned by firm regional demand.

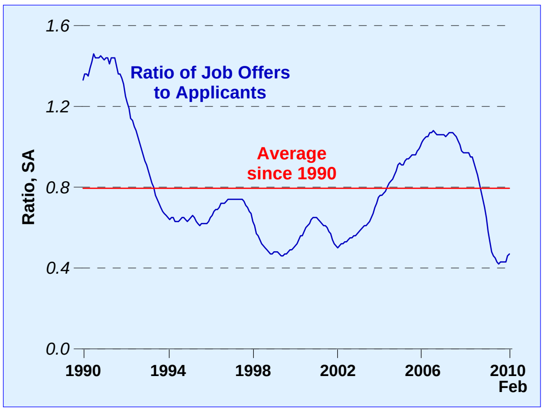
In Asia, the near-term outlook is positive as global and regional economic conditions continue to improve. Accordingly, the GDP growth forecasts for 2010 have been upgraded for all Asian economies since the last *Review* in October 2009.

Table 3.2
Consensus Forecasts of Selected US Economic Indicators in 2010

	2010 (y-o-y %)	%-pt Change from Oct 2009 Forecast
GDP	**3.2**	**+0.6**
Personal Consumption Expenditure	2.2	+0.7
Business Investment	1.6	+1.9
Industrial Production	4.9	+1.4
Housing Starts	21.8	-25.5

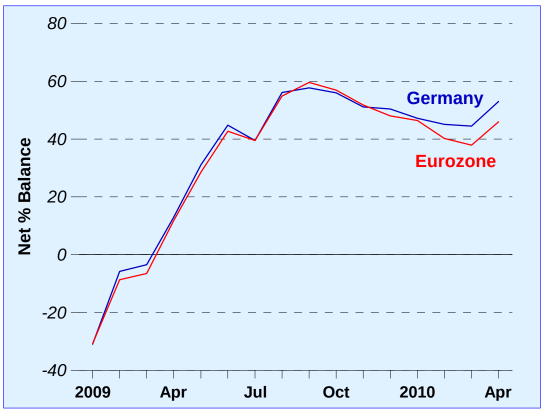
Source: Consensus Economics Inc. and CEIC

Chart 3.2
Japan's Job Offers to Applicants Ratio



Source: CEIC

Chart 3.3
The ZEW Index of Economic Expectations



Source: CEIC

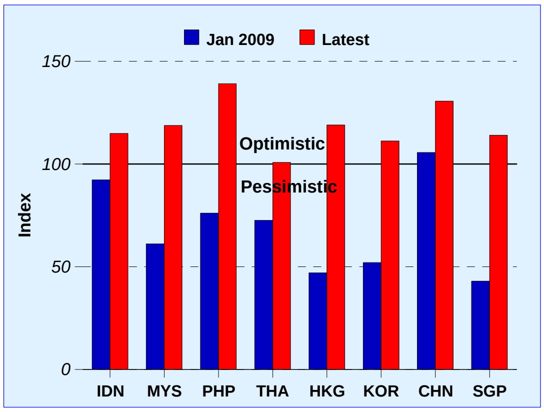
Whilst the strength of Asia's turnaround ultimately depends on a firm global recovery, there is some evidence of support from within the region. Consumption is likely to hold up given healthier household balance sheets and improving labour market conditions. Further, the resumption in capex spending could accelerate in the coming months as credit conditions ease and business confidence picks up. (Chart 3.4)

China will remain a locomotive of regional growth, although the composition of its domestic demand could change. In particular, the surge in investment spending last year has led to concerns of overcapacity and unbalanced growth, prompting the government to re-orientate policies towards stronger private consumption. While rebalancing is a multi-year process, the initial signs are encouraging. Fixed asset investment growth has moderated to 26% in March 2010 after peaking at 36% last June, while the expansion in sales of consumer goods remains firm. (Chart 3.5)

Meanwhile, there is scope for further trade integration in Asia. The share of intra-regional exports in total exports is still relatively low, albeit fast-growing. (Table 3.3) In this respect, the ASEAN-China FTA, which creates the third largest regional trading bloc by value after the EU and NAFTA, should catalyse deeper trade integration. Certainly there is scope to progress from trade in intermediate goods and commodities, which comprise the bulk of regional trade at present, to trade in *final* goods and services.

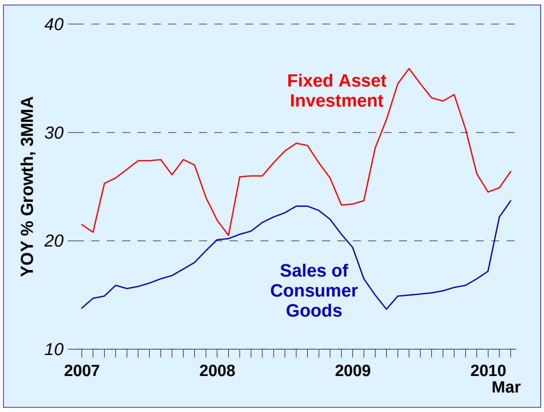
Thus, the external environment facing Singapore has turned around rapidly and continues to improve. Nevertheless, several risks continue to weigh on this outlook. First, labour markets remain weak in the G3, crimping household spending. Second, excess liquidity and higher commodity prices could stoke headline inflation and pressure central banks to tighten policy. A third factor that has emerged in recent months is that of sovereign risk in some of the industrial economies, such as Greece. Moreover, the economies that are most indebted are also the ones where private demand is weakest. Any near-term fiscal adjustments could therefore threaten the turnaround.

Chart 3.4
Business Confidence Indices in Asia



Source: CEIC and EPG, MAS estimates
Note: Indices are not comparable across countries as different sources were used to compile the chart.

Chart 3.5
Investment and Consumption in China



Source: CEIC

Table 3.3
Intra-Regional Exports

	EU-15	NAFTA	ASEAN-5 and China
Intra-Regional Exports (US$ bn)			
2008	3,050	1,013	396
2004-07	2,414	854	273
Growth (y-o-y %)			
2008	7.5	6.5	14.5
2004-07	12.2	10.0	20.6
Share of Total Exports (%)			
2008	59.0	49.5	17.0
2004-07	61.5	54.3	17.8

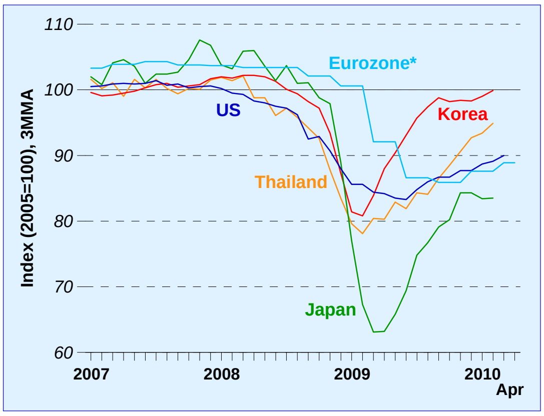
Source: CEIC and IMF
Note: ASEAN-5 comprises Indonesia, Malaysia, Philippines, Singapore and Thailand.

Inflationary pressures are likely to pick up more rapidly in Asia.

Against the backdrop of global recovery, inflationary pressures are likely to resurface in 2010. Food and energy prices are predicted to continue rising given the resumption of global demand, while base effects from low commodity prices in early 2009 will provide a fillip to CPI inflation in H1 this year.

In tandem with the differential growth outlook, price increases will probably stay more muted in the G3 compared to Asia. The amount of slack in the industrial economies is still fairly high given persistent unemployment and relatively lower capacity utilisation rates (Chart 3.6), leading to output gaps remaining negative. Conversely, the risks to inflation in Asian economies are skewed to the upside, given stronger domestic demand growth and the larger share of food and other commodity items in their CPI baskets. As such, the CPI inflation forecast for Asia ex-Japan in 2010 has been upgraded from 3.2% six months ago to 4.2% presently, while that for the G3 was raised by only 0.1% point to 1.3%.

Chart 3.6
Manufacturing Capacity Utilisation



Source: CEIC and Datastream
* Eurozone data is released on a quarterly basis.
Note: Data is 3MMA, except that of US and Europe, which are already seasonally adjusted.

3.2 Outlook for the Singapore Economy

Growth prospects on firmer ground

The Singapore economy can grow by 7-9% this year.

The recovery of the Singapore economy has become more entrenched over the last six months across a number of sectors as there is increasing evidence of a return in final demand worldwide. The resumption of global demand will, in turn, propel regional exports and set the stage for a virtuous cycle of export earnings feeding into labour markets and domestic demand in the region. Against this backdrop, the likelihood of a significant pullback in output has eased. Singapore's GDP growth for 2010 has thus been revised upwards to 7-9%.

The better-than-expected performance in Q1 2010 represents a step-up in the level of economic activity, about a year after its deepest plunge in Q4 2008-Q1 2009. Although there could be some moderation in growth momentum or perhaps even some pullback in output over the next few quarters, the underlying drivers of growth are likely to remain intact, and the level of economic activity sustained at a high level.

The IT sector is transiting to a more sustainable recovery.

From the sectoral perspective, Singapore's GDP growth this year will be mainly led by trade-related activities, which comprise manufacturing, wholesale trade and transport & storage. The outlook for the global IT industry will be a key determining factor in the growth profile of related industries and indeed the overall economy for the rest of the year.

Following the adjustments in Q2 and Q3 last year, there is evidence that the global IT industry is moving on to the third stage of recovery,[1] where growth is characterised by a healthy balance of firm demand and well-managed supply.

At the bottom of the downturn, upstream semiconductor manufacturers experienced a sharper retraction relative to manufacturers of final IT products.

[1] See Chapter 1 for elaboration on the first and second stages of recovery.

Conversely, when the external environment stabilised in Q2, upstream producers experienced a larger snap-back in output and shipments. As the global IT industry transits to stage three of the recovery phase, shipments of end products are now in line with their respective semiconductor supplies. (Chart 3.7)

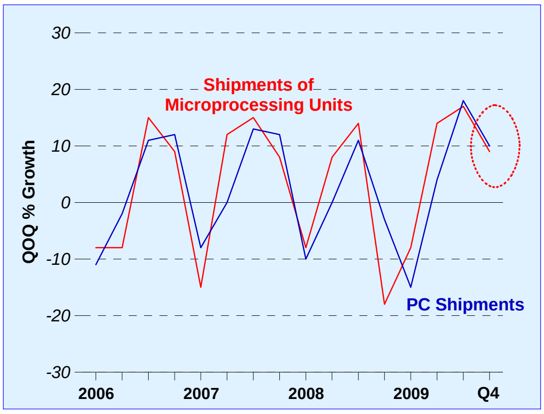
From the end-demand perspective, the third stage of recovery will see increased demand from both the consumer and corporate segments. The consumer segment will continue to be the bright spot, driven by demand for laptop PCs, notebooks and smartphones, particularly in China and the US. In fact, demand for these products was the key pillar of support during the downturn last year. According to Gartner, PC shipments grew by 4.8% in 2009, as a result of consumer purchases of laptop PCs and netbooks. (Chart 3.8) Smartphones also grew strongly by 24% in 2009, despite a 0.9% decline in the overall handset market. For 2010, Gartner forecasts growth of 20% for the PC market, and around 12% for the handset market.

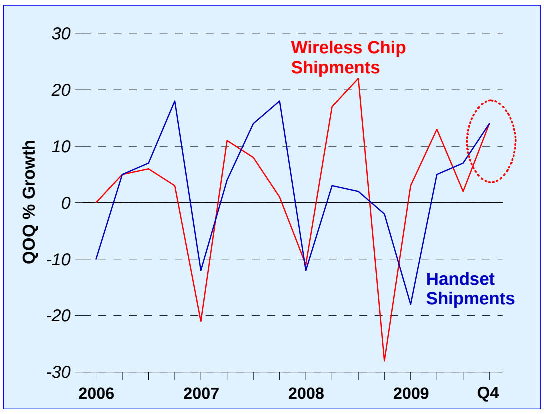
On the corporate front, the lift in H2 2010 will be bolstered by a PC replacement cycle, as companies upgrade aging systems, and by the trend towards cloud computing, which requires an upgrade in servers. As mentioned in Chapter 1, there are already some signs of a turnaround in corporate IT spending in the US market. Goldman Sach's latest survey in March further points to an improved spending outlook, reflecting the corporate PC refresh cycle and increased demand for IT networking.

The positive outlook for the end-demand segments should also translate into brighter prospects for the semiconductor industry. The richer semiconductor content in PCs and handsets, due to increased memory requirements, and for touchscreen controllers and applications processors in handsets, will further boost chip sales. Indeed, industry associations have raised the 2010 global chip sales forecast to around 20%. Nonetheless, this rebound has to be seen in the context of two years of decline in semiconductor revenues.

Meanwhile, overall supply-side conditions will continue to remain lean in the global IT industry. Foundry utilisation rates were already at 91% in Q4. Weak capex and plant closures in 2009 – 43 semiconductor fabs were shut down – have also shrunk semiconductor capacity. While capex is expected to rebound this year, capital intensity (capex to sales ratio) remains low. (Chart 3.9)

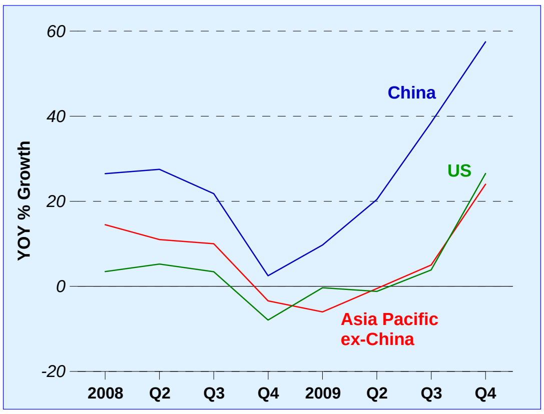
Chart 3.7
Semiconductor and Device Unit Shipments





Source: Gartner, Goldman Sachs Research and Semiconductor Industry Association

Chart 3.8
Growth in PC Unit Shipments



Source: Gartner

Moreover, planned spending by semiconductor manufacturers is primarily oriented towards implementing new advanced technologies, rather than capacity expansion. As such, supply conditions should remain well balanced in the period ahead, supporting the recovery in global IT.

The domestic manufacturing sector will be boosted by additional capacity in 2010 and 2011.

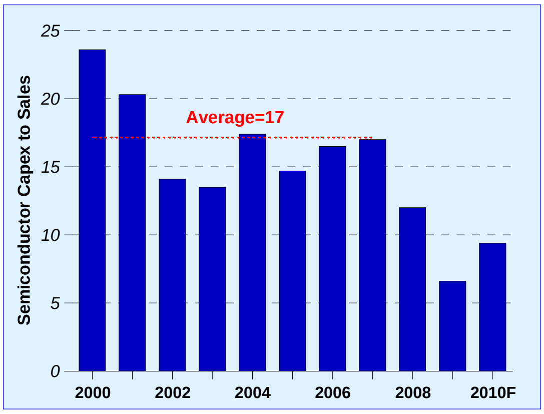
The cyclical upswing in global IT will support growth in the domestic electronics and precision engineering clusters in 2010. These sectors will receive a further boost from additional capacity coming onstream, including new production from Applied Materials' advanced semiconductor equipment facility and REC's integrated solar manufacturing complex (Table 3.4), as well as line expansions in SSMC's wafer fab. These investments will offset the impact of the closure of Seagate's hard disk drive plant this year.

New capacity additions in the biomedical and chemicals clusters will lift activity in the overall manufacturing sector. The pharmaceuticals industry is set to ride a wave of expansion on the biotechnology front, as four new biologics facilities by Roche, Lonza and GlaxoSmithKline (GSK) ramp up production over the next two years. Similarly, production from Shell's mono-ethylene glycol plant and ethylene cracker, as well as ExxonMobil's ethylene cracker, will provide a boost to domestic petrochemicals output.

Asian domestic demand will spur trade and tourism-related services.

In addition to brighter IT prospects, strong domestic demand from Asia will provide a further lift to Singapore's trade-related services. The domestic shipping industry, for example, is expected to continue its recovery following a sharp fall-off in global container traffic in 2009. Demand is improving, with container activity in Asia expected to be the key driver of growth. (Chart 3.10) Container activity in Asia was the first to turn positive in Q4 2009 and is likely to be further boosted by increased intra-Asian trade, as the ASEAN-China FTA came into force at the start of the year. Nonetheless, recovery in this sector could be dampened by oversupply since significant ship supply is expected to come onstream over the next two years, following a surge in newbuild orders placed at the height of the shipping boom in 2006-08.

Chart 3.9
Capital Intensity in the Global Semiconductor Industry

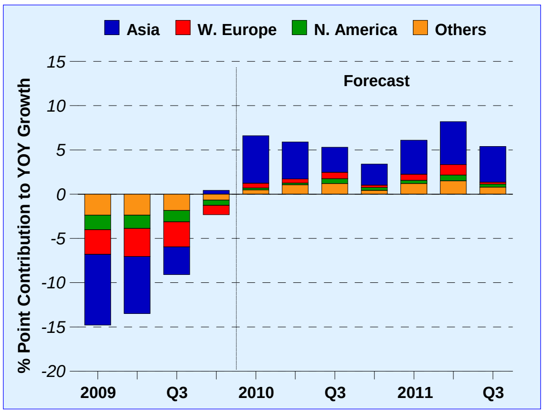


Source: Gartner, iSuppli and Semiconductor Industry Association

Table 3.4
Selected Manufacturing Investments in Singapore

Company	Start Date	Investment
Electronics-related		
Applied Materials	2010	US$60 mn
REC	2010	€3 bn
Chemicals		
Shell	2010	US$3 bn
ExxonMobil	2011	US$5 bn
Pharmaceuticals		
Roche	2010-11	US$500 mn
Lonza	2011	US$350 mn
GSK	2011	US$200 mn

Chart 3.10
Contribution to Container Growth Forecast by Region



Source: Drewry Container Forecaster, Q1 2010

The tourism industry is another area which will gain from strong Asian demand this year. Coinciding with regional economies' improving prospects and Asian consumers' growing appetite for travel, several supply-side developments will provide an added boost to steer regional visitors to Singapore. These include increased route offerings by Asian low-cost carriers flying to Singapore, and the debut of the two IRs.

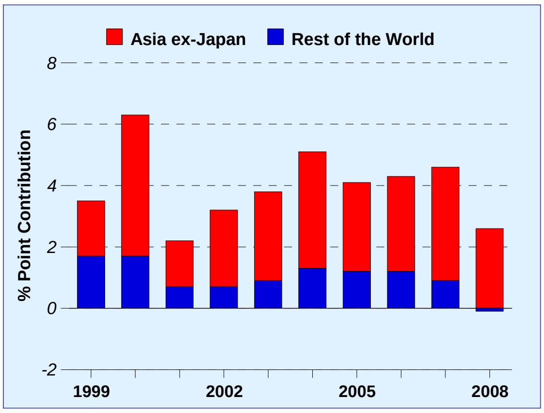
Thus, Singapore's tourist arrivals – the majority of which are from the region – are set to increase strongly. The Singapore Tourism Board is projecting 11.5-12.5 million visitors for 2010. At the more optimistic end, this implies an increase of almost 30% from the 9.7 million arrivals last year. This will benefit tourism-related services such as hotels & restaurants, air transport, retail trade, exhibitions & conventions, gaming and entertainment. Overall, STB has forecast tourism receipts of $17.5-18.5 billion in 2010, up from $12.4 billion last year.

Asian domestic demand is becoming important in industries previously geared towards the G3.

While still a small proportion of the overall pie, the region is increasingly becoming a key source of final demand for those industries that have previously looked towards developed markets for support. For example, electronics retail sales in China appear to be rapidly catching up with that in the US. At the start of the last decade, China retail sales were estimated to be only 12% of the US. By the end of last year, this had risen to 55%. In financial services as well, emerging Asia is becoming a major source of new business for merger and acquisition (M&A) deals. According to Mergermarket, Asia ex-Japan accounted for the bulk of the growth in M&A deals in Q1 2010, even as deal volumes slumped in Europe and the US.

More broadly, Asia ex-Japan now accounts for a significant proportion of global growth in domestic demand. (Chart 3.11) EPG's calculations show that in the 1999-2003 period, Asia ex-Japan economies accounted for slightly more than two thirds of domestic demand growth of Singapore's key trading partners. In the subsequent five years, this had risen to 80%. Asian economies' provision of goods and services to meet such indigenous demand will help to bolster the region's corporate and household incomes, further reinforcing domestic demand growth.

Chart 3.11
Contribution to Global Domestic Demand Growth by Region*



Source: EPG, MAS estimates
* Weighted by NODX share.

The financial services sector should recover gradually in the coming quarters.

Compared to the manufacturing sector and trade-related services, growth in financial services has been relatively subdued thus far this year. This followed the sharp recovery in the financial sector in H1 2009. (Chart 3.12) Barring further negative external surprises, financial services should continue on a trend recovery path in the coming quarters, alongside improvements in the global and domestic economic environment.

Non-bank lending will rise in line with the broader economic recovery, and will be a key source of growth for the financial sector this year. Latest data shows that both the domestic and offshore lending segments registered positive sequential gains over the first two months of Q1 2010. Should this momentum continue into March, non-bank loans would be headed for their fourth consecutive quarter of sequential gains. Within the domestic segment, mortgage-related lending has continued to underpin the expansion in consumer loans. (Chart 3.13) Given improving manufacturing, trade and financial market activity, credit extended to these sectors should also rise in the coming months. On the offshore front, lending to East Asian markets should continue to remain strong, buoyed by investor confidence in the region's growth prospects.

In comparison, interbank lending is likely to be a laggard in the current recovery, as it is tied more to the G3 and has been relatively more volatile. (Chart 3.14) However, it should see some improvement in H2 as global credit markets normalise and positive market sentiment gradually returns.

Thus far, the rebound in financial sector growth in Q1 has been underpinned by the core domestic lending and insurance sectors, which together, contributed some 70% of the gains. The recovery in the sentiment-sensitive cluster, in comparison, has been quite tentative. Stock market turnover volumes posted a mere 6.9% increase in Q1 on a sequential basis, a far cry from the triple-digit growth it recorded last year at the peak of its rally. The fund management industry has also seen reduced inflows into the region in Q1. Moving into Q2, however, trading activity in the domestic equity market has gathered pace, buoyed in part by fresh rallies across global bourses and stronger-than-anticipated growth in the Singapore economy.

Chart 3.12
Financial Services GDP Growth

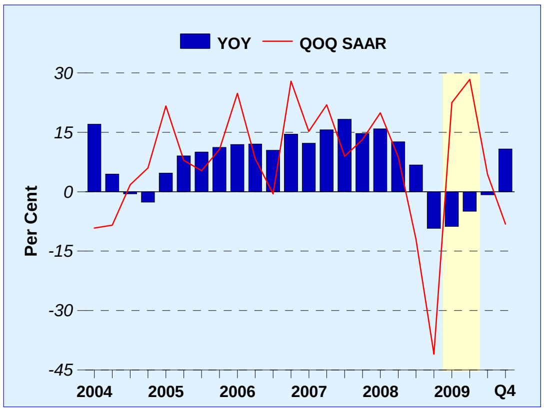


Chart 3.13
DBU Non-bank Loans

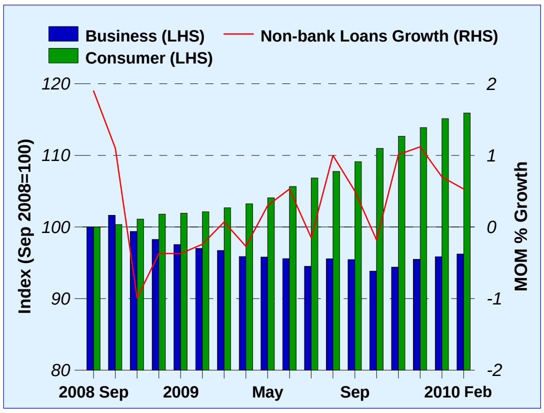
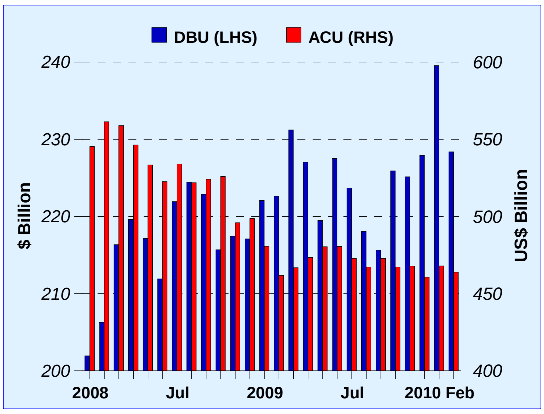


Chart 3.14
Interbank Lending



The Dow has moved beyond the psychologically important 11,000 mark, whilst the S&P 500 has crossed the critical 1,200 level. Correspondingly, the STI breached 3,000 in mid-April for the first time since June 2008. (Chart 3.15) Trading activity also intensified, with the local bourse chalking up an average daily turnover volume of 2.1 billion units in April thus far, compared to the 1.4 billion units recorded in March.

Looking ahead, activity in the broader brokerage & treasury cluster could pick up in the second half of the year should there be positive surprises from global economic data or corporate earnings results.

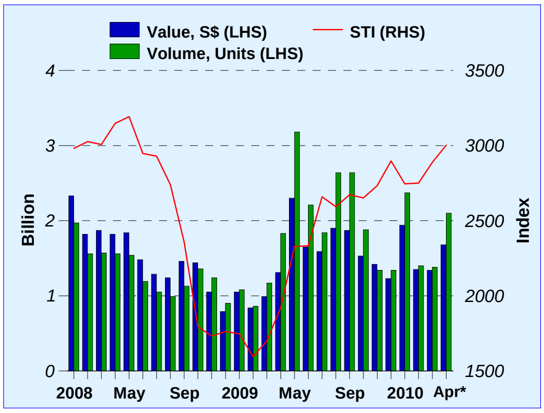
Commercial banks are likely to see stronger non-interest earnings from investment banking services, as capital market activity and M&A deal volumes recover. The fund management industry is also anticipated to grow further, albeit not at pre-crisis rates, underpinned by investors' confidence in regional growth prospects in the near term. While overall financial sector growth is expected to be anchored by the domestic lending and insurance industries this year, the sentiment-driven cluster could provide some upside if the upswing in the global economy becomes more entrenched.

Pockets of weakness remain in the chemicals, transport and construction sectors.

Nonetheless, there are still pockets of weakness in selected industries. For instance, the chemicals cluster is facing a global industry downturn. Demand for ethylene, a building block for petrochemicals, is forecast to remain below historical trend growth over the next five years, overshadowed by a massive capacity overhang. While start-up delays in the Middle East and strong Chinese demand forestalled oversupply issues in 2009, the full impact of capacity expansions will probably be felt this year. Additional capacity for the production of ethylene is concentrated in China, a major end market, and the Middle East, given its abundant natural gas reserves. (Chart 3.16) Ethylene overcapacity is forecast to reach 20 million tonnes in 2010, equal to 18% of global capacity.

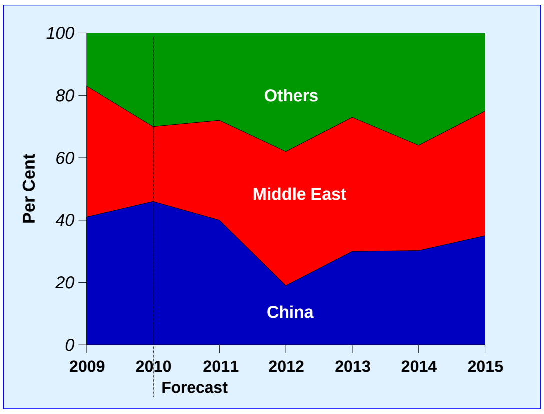
In the marine & offshore engineering (M&OE) industry, net orderbooks at shipyards have been run down and remain at low levels this year, after weak oil prices and tight credit conditions froze exploration & production budgets and led to order deferrals and cancellations in 2009. (Chart 3.17) The fall-off in new rig orders since

Chart 3.15
Stock Market Average Daily Turnover and Straits Times Index (STI)



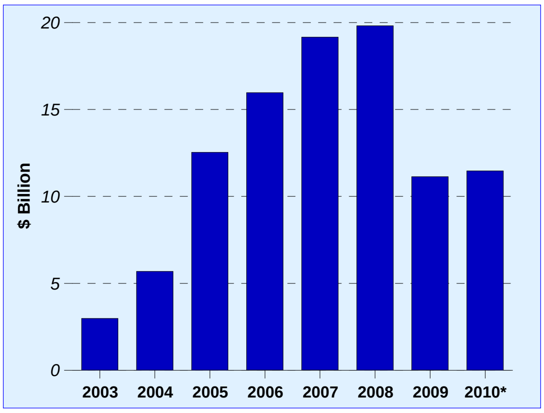
Source: SGX
* As at 26 April.

Chart 3.16
Share of New Capacity in Ethylene Products



Source: CMAI

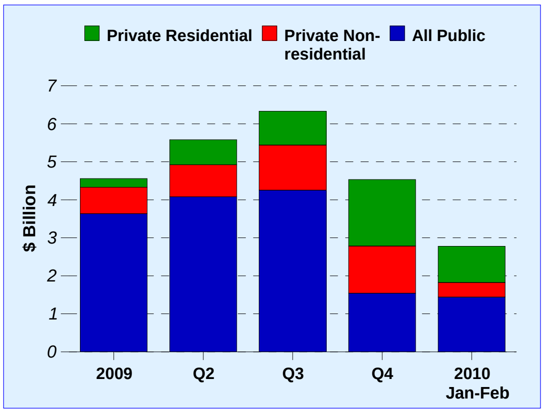
Chart 3.17
Shipyard Net Orderbooks



Source: Keppel Corp. and SembCorp Marine
* As of end-April 2010.

Q4 2008 could impact shipyard activity this year, given production lags. Nevertheless, new orders began picking up in Q4 2009 as a result of higher oil prices. In addition, demand for deepwater drilling equipment remains a bright spot, after major oil and gas discoveries in Brazil, the Gulf of Mexico and West Africa in 2009.

Chart 3.18
Value of Construction Contracts Awarded



The construction industry may slow down in the immediate quarters, as demand tapers off from the peak of the recent building boom. Despite a resurgence in private residential building demand as the economy recovers, new contracts for large private industrial and commercial projects – the mainstay of the recent boom – have continued to be weak. (Chart 3.18) Although public infrastructure projects will provide some support, overall construction contracts awarded have remained at low levels in Q4 2009 and in the early months of 2010. After expanding for five consecutive years in 2005-09, construction activity is poised to ease in 2010.

Current levels of domestic activity should be sustained.

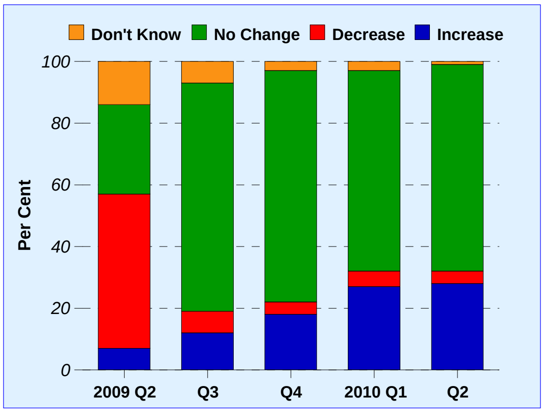
In sum, with global demand underpinned by firmer foundations, there should be sufficient support for sustained domestic economic activity. Pockets of weakness exist in some industries, but these should be offset by the continued growth in IT manufacturing, trade-related services and tourism-linked activities. In addition, capacity expansions in a number of industries, including the opening of the two IRs, should also boost growth. As global private sector-led demand continues to increase, domestic output levels are likely to be maintained at high levels.

3.3 Labour Market

Employment will pick up in 2010 …

In tandem with the economic recovery, the pace of job creation is likely to pick up in 2010. According to the Manpower Employment Outlook Survey, there has been a steady increase in the proportion of companies intending to hire. In Q2 2010, for example, 28% of employers expect to hire, an increase from 18% in Q4 2009 and 12% in Q3 2009. Nonetheless, the majority of firms polled (67%) still intend to freeze headcount in Q2 2010 (Chart 3.19), suggesting that employment gains for this year will be relatively moderate, compared to record job gains of more than 200,000 in 2007 and 2008.

Chart 3.19
Employment Outlook



Source: Manpower Inc.

… although manpower demand will be uneven across industries.

Hiring demand will vary across industries. Employment prospects for the financial services sector will be buoyed by banks expanding their operations in anticipation of high demand for corporate banking and wealth management services in the region. The hiring outlook also appears relatively bright in the wholesale trade and transport & storage industries as they benefit from the strong recovery in trade. These will in turn translate into increased hiring in supporting services, such as business services.

However, the demand for workers in retail trade and hotels & restaurants is expected to wane after the spate of hiring by the IRs in H2 2009. These industries will also be more directly affected by the impending hike in foreign worker levies, given the relatively higher number of work permit holders that they employ. (Table 3.5) Similarly, manufacturers are unlikely to recruit extensively this year in light of the levy hike, with much of the sector's growth likely to be driven by productivity improvement instead.

In addition to the levy hike, the construction sector also faces a reduction in Man-Year Entitlement (MYE),[2] which directly restricts the number of foreign workers

Table 3.5
Changes to Foreign Worker Levies on 1 July 2010

Sector		Changes	
		Tiers	Rates
S Pass Holders		From 1 to 2	Basic Tier Up by $50 Tier 2 $120
Work Permit Holders	Mfg	Adjusted Caps	Basic Tier Up by $10-$20 Tier 2 Up by $0-$30
	Svc	Adjusted Caps	Basic Tier Up by $10-$20 Tier 2 Up by $20
	Constr	-	Skilled Up by $10

[2] Man-Year Entitlement refers to the total number of foreign workers a main contractor is entitled to employ, based on the value of projects/contracts awarded by developers/owners. It is allocated in the form of the number of "man-years" required to complete a project i.e. 1 man-year = 1-year employment under one work permit. The MYE will be reduced by 5% on 1 July 2010.

that firms can employ. Coupled with the projected slowdown in building activity due to the completion of major projects, employment growth in this sector will be correspondingly muted this year.

Labour supply constraints have become more binding …

On the supply side, the labour market has tightened significantly. From 5.0% in September 2009, the seasonally adjusted resident unemployment rate fell sharply to 3.0% in December, which was close to its pre-crisis level. In addition, the resident labour force participation rate (LFPR) had stayed near its record high of above 65% in 2009, indicating that the scope for expanding labour supply in the short term is limited. (Chart 3.20)

However, over the longer term, the resident LFPR could rise further as more older residents and females enter the workforce. In the last decade, these two groups were the main contributors to the sustained rise in the resident LFPR. (Charts 3.21 and 3.22) The re-employment legislation, which will come into play in 2012, could help to raise the LFPR of older residents. Key draft guidelines on the legislation were recently announced, stipulating that companies should offer local workers continued employment for at least one year upon turning 62. Also, should there be no suitable jobs available within the company, a one-off Employment Assistance Payment should be offered to help affected staff tide over the job-hunting period.

… and competition for workers will lead to stronger wage growth.

Given the constraint in labour supply, coupled with an improving economy, competition for workers will intensify. Some services industries, such as hotels & restaurants, are already witnessing higher turnover as staff have left to join the IRs. While some industries can cope with the shortage of workers by stepping up productivity, others may not be able to do so quickly. For the latter group, strong competition for workers will bid up wages.

Chart 3.20
Resident Labour Force Participation Rate (LFPR)

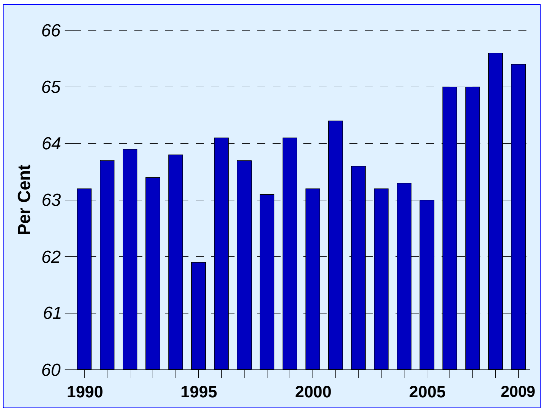


Chart 3.21
Old-Age Resident LFPR

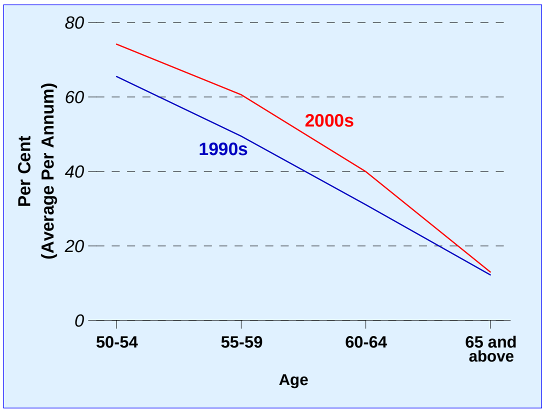
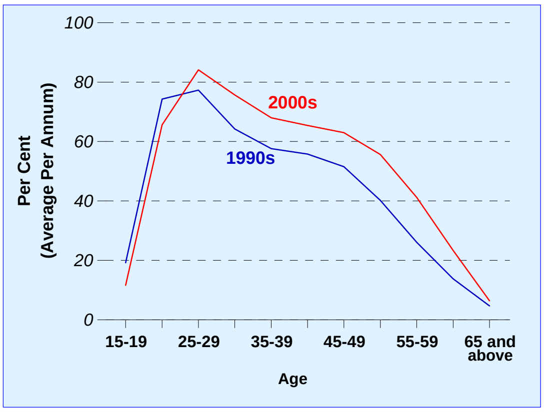


Chart 3.22
Female Resident LFPR



A better trained workforce will support productivity gains in the longer term.

High wage growth will not be sustainable over the longer term without a corresponding increase in productivity growth. Hence, the Economic Strategies Committee (ESC) has set a productivity growth target of 2-3% for the medium term. This is to be achieved by a combination of higher labour quality, increased capital deepening and stronger total factor productivity growth. (See the Special Feature for more details.)

Higher labour quality can be achieved through training and skills upgrading. A recent WDA survey found that 90% of workers who have undergone training perform better at their jobs. However, only around one in ten employers participated in the Workforce Skills Qualifications (WSQ) scheme in 2009. The participation rate is particularly low in industries dominated by SMEs, such as the retail industry which has a participation rate of only 5%. Perhaps this is partly due to the difficulty of releasing workers for training in small organisations. Thus, the new WSQ approach of offering on-site, bite-sized training could help improve labour productivity for such industries. WDA intends to roll out more WSQ courses to meet the needs of a wider spectrum of workers, and the system will be refined to overcome the obstacles that employers face, including providing training during hours that suit the companies' work schedules.

3.4 Inflation

Headline CPI inflation will rise in 2010 …

Headline CPI inflation turned positive in Q1 2010, after two consecutive negative quarters. On a sequential basis, the CPI has trended higher since Q3 last year, largely due to the rise in global commodity prices and private road transport costs. These two factors will continue to push headline inflation rates up for the rest of 2010. Other domestic sources of inflationary pressure, though presently subdued, could also emerge in the coming quarters as demand recovers strongly and factor markets tighten.

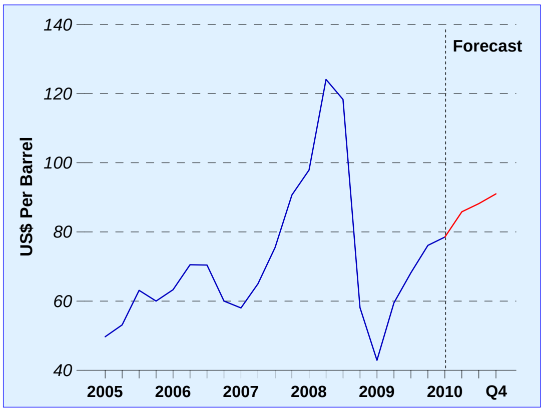
… driven by higher commodity prices …

Global oil prices reached an 18-month high in April 2010, and are expected to continue rising modestly for the rest of the year as demand recovers. Despite higher-than-average global oil inventories and production capacity in OPEC countries, oil prices could average about 40% higher for 2010 as a whole due, in part, to the low base in H1 2009. (Charts 3.23 and 3.24)

Correspondingly, oil-related items in the domestic CPI will probably record double-digit y-o-y inflation rates this year. For example, while electricity tariffs for Q2 2010 were raised moderately by 3.0% q-o-q, they were about a third higher than a year ago. Including petrol pump prices and tariffs for gas and LPG, oil-related items are expected to contribute about 0.7% point[3] to overall CPI inflation in 2010, compared with 1.0% point in 2009.

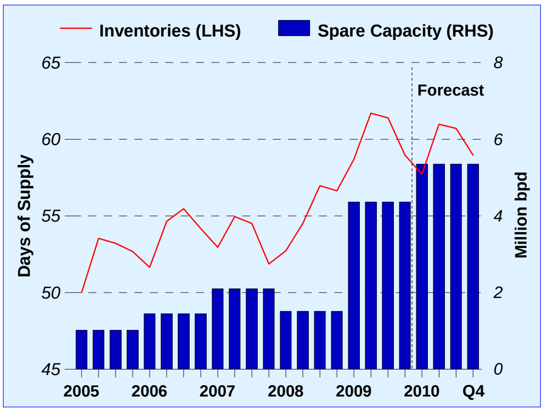
Likewise, world agricultural commodity prices rose for the most part of 2009 despite the global recession, underpinned by structural factors that have been in place since 2005. These include rising demand from emerging economies due to socio-economic and demographic changes, increased use of food as biofuel feedstock and higher input costs caused by more expensive oil, all of which are likely to continue supporting food prices in the near term.

Chart 3.23
WTI Crude Oil Prices



Source: Bloomberg, EIA and EPG, MAS estimates

Chart 3.24
OECD Crude Oil Inventory Levels and OPEC Crude Oil Spare Production Capacity



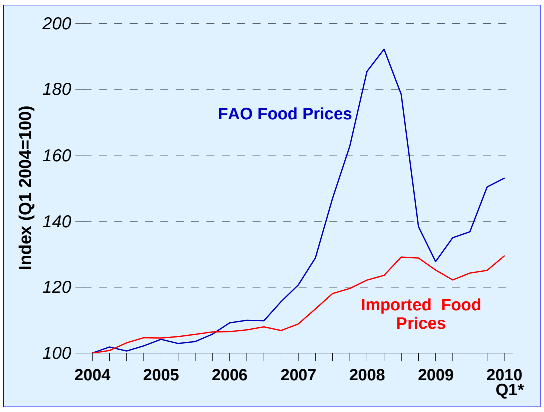
Source: EIA

[3] A 10% y-o-y increase in global oil prices could raise domestic CPI inflation by close to 0.2% point for the whole year. This is obtained by using the Input-Output tables to estimate the oil content in the production of oil-related items, and assuming a pass-through rate of about 65% – based on the average for the past five years – from production costs to retail prices.

This year, there could be additional price pressures on certain food categories, particularly vegetables, meat, rice and sugar, arising from extraordinarily harsh winter conditions in the northern hemisphere and exceptionally dry weather in the ASEAN region and India caused by the El Niño weather phenomenon. Nevertheless, the increase in global food prices is likely to be smaller than the exceptional surge in 2007-08 due to current higher global inventory levels.[4]

Thus, domestic retail prices for food, which had been capped by the economic downturn last year, are set to pick up more from Q2 2010 onwards, as price increases of food imports since last year are passed on to consumers. (Chart 3.25)

Chart 3.25
FAO Food Price Index and Domestic Food Import Price Index

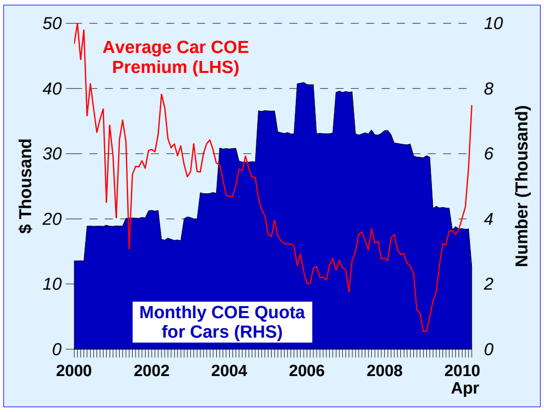


Source: FAO
* Average Jan-Feb 2010 for imported food prices.

... and car prices.

Meanwhile, amongst domestic sources of inflation, the increase in car prices since the beginning of this year has been especially significant. COE premiums for cars surged past $35,000 in April and will probably remain elevated for the rest of the year, as supply remains limited. The COE quota from April to July was cut by more than 30% from the preceding six-month period to its lowest level in a decade. (Chart 3.26) The quota was adjusted for the over-supply of COEs in the past two years as well as the decline in the number of deregistered cars in H2 2009.[5] Supply for the next quota period from August 2010 to January 2011 is likely to dip further for the same reasons. Car prices could thus rise significantly this year and account for about two-fifths of overall CPI inflation.

Chart 3.26
COE Supply and Premiums for Cars



Other domestic sources of inflation could increase from the closing of the output gap.

The prices of other domestic goods and services could also pick up this year as business costs increase in line with continued growth in the economy and tightening of factor markets. After all, the output gap has already turned positive in Q1 2010. Apart from the cyclical factors, there are also policy-induced factors that could

4 For example, the FAO has estimated that world cereal stocks by the close of the crop seasons in 2010 could reach their highest level in eight years.

5 The over-supply of COEs was largely due to over-estimates of the number of deregistered vehicles during 2008-09. To correct for this, adjustments will be factored into the COE quota from April 2010 to January 2012 and the quota determination formula was changed in March 2010. Each period's supply will now depend on the *actual* number of deregistered vehicles in the preceding six months after a one-month lag, as opposed to a *forecast*.

further add to cost pressures. In particular, the measures contained in the FY2009 Resilience Package, notably the Jobs Credit Scheme, will be completely phased out by the middle of the year while the foreign worker levy will be raised in July.

As highlighted in the previous section, the labour market has tightened substantially. Thus, industries that are unable to step up productivity quickly will face higher wage costs. Productivity growth after the Asian Financial Crisis and the 2001 IT Downturn was led by the manufacturing sector. This is evident from the steeper and more persistent decline in the Unit Labour Cost (ULC) of the manufacturing sector compared to the overall economy during those periods. (Chart 3.27) This will likely be the case during this upturn as well. Apart from manufacturing, the rest of the economy could face an increase in ULC, i.e. greater cost pressures that could translate into higher consumer prices.

While rentals for office and industrial premises have started to recover in Q1 2010, they will remain moderate, given low occupancy rates and additional supply due to come onstream later in the year. However, rentals for shop space could rise much faster. Despite the opening of several new malls, the occupancy rate of shop premises started to rise in Q2 2009 and reached an unprecedented high in Q4. (Chart 3.28) The IRs have boosted the growth prospects of the retail and food & beverage sectors and, consequently, will support shop rentals. Coupled with stronger demand and the expected record number of visitor arrivals, merchants may pass on these increases in cost to consumers.

Inflation is forecast to average between 2.5% and 3.5% in 2010.

In sum, the bulk of the price pressures in 2010 will likely come through the imported inflation channel, driven by higher global oil and food commodity prices, as well as from elevated car prices. Specifically, the cost of commodity-related and car prices could each account for about two-fifths of CPI inflation this year.

Other domestic sources of inflation will probably also pick up alongside the rapid closing of the output gap. In particular, labour market conditions have tightened significantly, with the economy near full capacity, and rising business costs could put upward pressures on the prices of a wide range of goods and services.

Chart 3.27
Unit Labour Costs

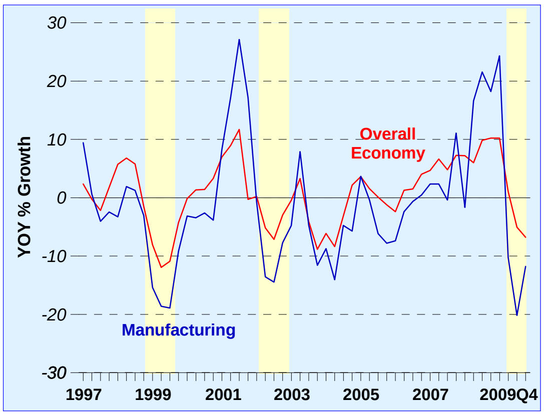


Chart 3.28
Commercial and Industrial Space Occupancy Rates

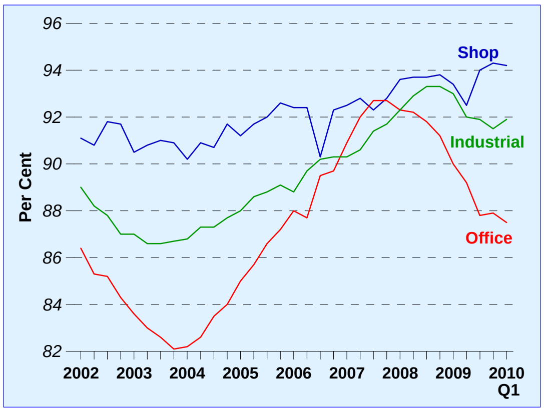
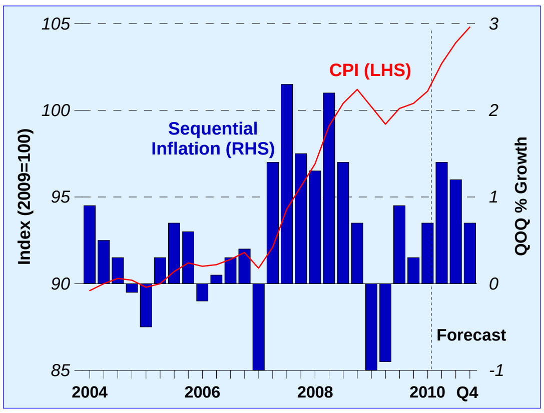


Chart 3.29
Sequential CPI Inflation Forecasts

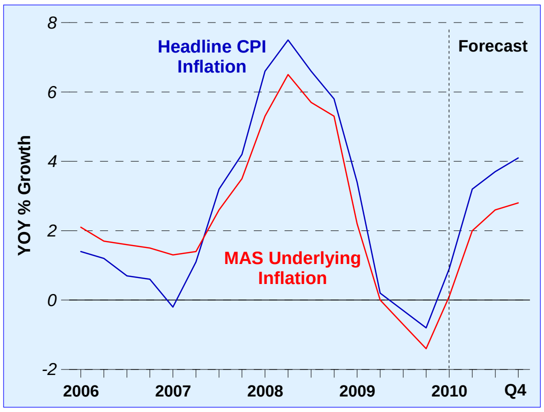


Source: EPG, MAS estimates

Thus the CPI is expected to continue rising on a sequential basis for the rest of the year. Price increases are likely to be especially steep in the coming quarters, due largely to higher car prices, before moderating towards the end of the year. (Chart 3.29)

The build-up of sequential price increases in addition to the low base will result in higher headline inflation, which could reach about 4% by Q4 2010. (Chart 3.30) For the year as a whole, CPI inflation is projected to average between 2.5% and 3.5%. The MAS underlying inflation rate will follow a similar profile, but average lower at close to 2%, largely because it excludes the cost of private road transport, which is likely to be one of the main contributors to inflation this year.

Chart 3.30
Headline CPI and MAS Underlying Inflation Forecasts



Source: EPG, MAS estimates

3.5 Assessing the Macroeconomic Policy Mix

Monetary Policy

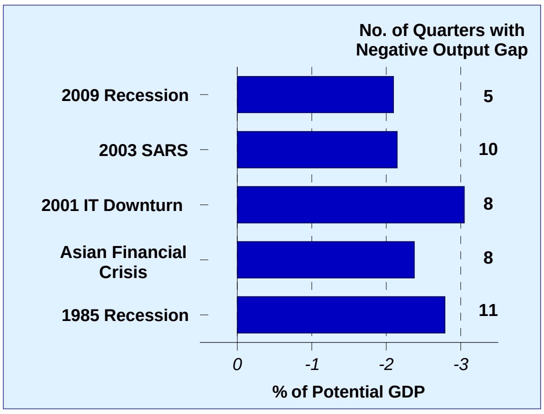
The monetary policy stance was tightened in April 2010, in view of the firm recovery and emerging inflationary pressures.

Downside risks to growth have receded significantly since the last policy review in October 2009. Confounding initial expectations of a severe and prolonged contraction, economic activity across a range of industries has already returned to levels that are close to, or above, their preceding peaks. A sustained recovery is in progress and is broadening out from trade-related clusters to domestic-oriented sectors. Chart 3.31 also shows that the cumulative output losses as a share of potential output from the recent crisis have been modest in comparison to the downturns since 1985.

Given the relatively small output losses during this recession and the rapid return to growth, the output gap turned positive in Q1 this year. In addition, the economy should track its potential growth trajectory closely going forward. (Chart 3.32) As a result, the increase in resource utilisation and currently low unemployment rate could lead to stronger wage growth. At the same time, inflationary pressures are likely to pick up, in tandem with the rise in global commodity prices and domestic costs.

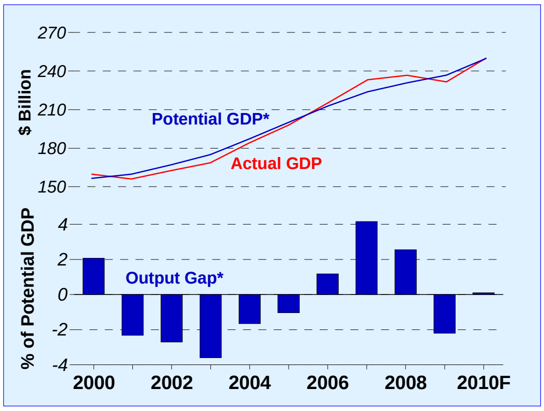
Accordingly, MAS announced on 14 Apr 2010 that it would shift to a modest and gradual appreciation of the S$NEER policy band, in addition to an upward re-centring of the band. This tighter policy stance is appropriate and timely, considering that the Singapore economy has recovered strongly from the global financial crisis, and is likely to continue on a firm recovery path, given improved prospects in the external environment.

Chart 3.31
Cumulative Output Loss Relative to Potential across Downturns



Source: EPG, MAS estimates

Chart 3.32
Real GDP and Output Gap



* EPG, MAS estimates

Fiscal Policy

The FY2010 Budget was announced amidst vastly improved economic conditions.

The FY2010 Budget was presented on 22 February in economic circumstances that were quite different from the previous Budget. In contrast to the beginning of 2009, when the Singapore economy was mired in the depths of the crisis, prospects for the economy had brightened considerably early this year as the global downturn receded. In view of the improved economic conditions, the government announced exit strategies for two key components of the Resilience Package that were put in place last year to help businesses and households weather the downturn. First, the Jobs Credit Scheme, which comprised cash grants to employers to subsidise part of their wage bills for local workers, has been extended for another six months until June 2010, but at a stepped-down rate.[6] Similarly, while the financing schemes under the Special Risk-Sharing Initiative (SRI) will continue for another year until January 2011, they have been scaled back in terms of the size and tenure of loans, as well as the share of the risk borne by the government. Moreover, the extension of both schemes is to be funded from the regular budget instead of past reserves.

The budget has shifted the focus from crisis-containment to longer-term investment.

The measures in the FY2010 Budget shifted from crisis relief to initiatives targeted at the restructuring of the economy in order to enhance productivity over the medium to long term, in line with the recommendations of the ESC.[7]

The budget is aimed at building up capabilities for the future through three channels, as highlighted in Table 3.6. First, the government is committing $1.1 billion a year over the next five years in the form of tax benefits, grants and training subsidies to help companies and workers innovate and deepen their skills and expertise. Second, measures were put in place to enable companies to develop growth capabilities, commercialise their R&D and expand abroad. Third, funds were committed to benefit the lower-to-middle income households through direct transfers and changes in tax policies, as well as skills-upgrading, to raise and sustain the incomes of low-wage workers.

Targeted supply-side policies were introduced to boost capital deepening, innovation and efficiency.

With a medium-term focus, the FY2010 Budget departed from the traditional emphasis on expenditure and revenue (taxation) measures which have a more direct impact on the income stream of households and businesses, i.e. aggregate demand effects.

Instead, it set in place more supply-side initiatives, directed towards incentives for businesses to operate more efficiently. These include the Productivity and Innovation Credit to provide firms with substantial tax deductions for investment across a broad range of activities along the innovation value chain,[8] and the setting up of the National Productivity Fund to support initiatives for enterprise productivity.

6 The cash grants under the Jobs Credit Scheme were originally based on 12% of the first $2,500 salary of each eligible employee. The two additional Jobs Credit payouts in March and June 2010 will be at 6% and 3% of the first $2,500 of the employees' salary, respectively.

7 The ESC was established in May 2009 to develop growth strategies for Singapore in a new world environment following the global financial crisis. It was chaired by the Minister for Finance and comprised representatives from both the public and private sectors. Its recommendations were announced on 1 Feb 2010.

8 Examples include research and development undertaken in Singapore, acquisition of intellectual property (IP), registration of IP, investment in design in Singapore, spending on equipment and software to automate processes, and workers' training.

By altering the relative costs of the two inputs, these measures encourage producers to re-optimise their capital and labour mix. Incentives to promote investment will lower the relative cost of capital, while policies to reduce companies' reliance on foreign workers – through gradually increasing foreign worker levies and tightening the levy tiers over the next three years – will raise the cost of labour. Initiatives that emphasise product and process innovation, enhance workplace efficiency and managerial expertise should progressively enhance overall productivity growth.

SMEs receive support for R&D, and to grow and compete globally.

The FY2010 Budget contained initiatives to support local companies seeking to commercialise R&D, as well as to grow and compete in the global market. These include the Partnerships for Capability Transformation Programme, Public-Private Co-Innovation Partnership, and measures to improve SMEs' access to finance and to attract investors to nurture start-ups.

Indeed, a model of growth developed by Ricardo Hausmann and Dani Rodrik suggests that new sources of growth will have to come from niche areas arising from the exploratory activities of many small-scale entrepreneurs.[9] Since competition and imitation can be costly for private entrepreneurs and undercut the incentive to invest in discovery, there may be a role for the government to encourage the search and discovery process by increasing incentives to entrepreneurs. This is particularly relevant for the development strategy of an economy like Singapore, which is already quite close to the world's technological frontier in many areas of manufacturing, and which has reached a level of development where many of the more obvious investment opportunities have already been tapped.

Households will benefit from changes in taxes and transfers, as well as training subsidies.

The third thrust of the FY2010 Budget is to foster inclusive growth by maximising opportunities for all Singaporeans, without reducing the incentive to work. By developing a comprehensive Continuing Education and Training system over the next five years, and through the new Workfare Training Scheme (WTS), older, low-wage workers will receive assistance to enhance their skills and stay gainfully employed. Investment in education for each student cohort will also increase substantially. To provide additional help to families with children, the Post-Secondary Education Accounts will be given a top-up of $230 million this year. In addition, lower-income households will benefit from the shift to a progressive property tax schedule for owner-occupied residential properties, as well as improvements to parent and spouse relief for personal income tax. Households also continue to benefit from transfers that were put in place in previous Budgets, such as the final tranche of the GST Credits and Senior Citizens' Bonus, as well as rebates for utility, service and conservancy charges, and HDB rentals.

The government is expected to run a budget deficit in FY2010.

Overall, the government is likely to run a budget deficit in FY2010 for the second year running, of around $3 billion (1.1% of GDP). (Table 3.7 and Chart 3.33) The basic deficit, which is the balance of revenue and expenditure before taking into account the contribution from net investment returns and top-ups to endowment and trust funds, is estimated to be $7.2 billion (2.6% of GDP), slightly less than the $8.5 billion (3.3% of GDP) incurred in FY2009. The size of special transfers is almost the same in both years (around $5 billion), but its composition has shifted from short-term crisis-relief measures, such as the Jobs Credit Scheme and Workfare Income Supplement Special Payment, towards longer-term top-ups to endowment and trust funds, such as the National Research Fund and National Productivity Fund.

[9] Hausmann, R and Rodrik, D (2003), "Economic development as self-discovery," *Journal of Development Economics*, Volume 72, Issue 2, December 2003, pp. 603-633.

Table 3.6
Key Budget Initiatives

Measure	Target Spending
(1) Raising Productivity: Skills, Innovation And Economic Restructuring *of which,*	
• Expansion of the Continuing Education and Training (CET) System • Introduction of a 3-year Workfare Training Scheme (WTS)	$2.5 bn over 5 years
• Enhancement of the Workfare Income Supplement (WIS) Scheme	$440 mn a year
• Productivity and Innovation Credit	$480 mn a year
• Creation of a National Productivity Fund	$1 bn in 2010
• Phased-in increase in foreign worker levies	N.A.
• Income tax allowance and stamp duty relief to defray costs of mergers & acquisitions	$100 mn a year
• Introduction of Land Intensification Allowance	N.A
(2) Growing Globally Competitive Companies *of which,*	
• Partnerships for Capability Transformation (PACT) Programme	$250 mn over 5 years
• More support for business associations to drive productivity at the industry level, build capabilities for growth and facilitate international market access for their members	$100 mn over 5 years
• Enhancement of SPRING's Business Leaders Initiative, which is an umbrella programme to attract and groom talent for SMEs	$45 mn over 5 years
• Top-up to the National Research Fund, to support the intensification of R&D efforts	$1.5 bn in 2010
• Setting up a Public-Private Co-Innovation Partnership in areas such as urban mobility, environmental sustainability and energy security	$450 mn over 5 years
• Tax deduction for angel investors	$60 mn over 5 years
• Tax incentives for the maritime and financial sector	N.A.
• Catalysing growth capital for SMEs by seeding a range of funds over 10 years	$1.5 bn over 10 years*, $250 mn in 2010
• Additional tax incentives to grow Singapore' role as a global business hub	N.A.
(3) Including All Singaporeans in Growth *of which,*	
• Shift to a progressive property tax regime for owner-occupied residential properties	$230 mn a year initially
• Increase in parent relief (including handicapped parent relief)	N.A.
• Wife relief to be expanded to female resident taxpayers who support their husbands	N.A.
• Raising of income threshold of dependants for taxpayers to claim dependent-related reliefs	N.A
• Increase in course fee relief	N.A
• Extension of tax deduction for donations	N.A
• One-off top-up to CPF Medisave Accounts of Singaporeans aged 50 and above	$310 mn
• Top-ups to the Medifund and Eldercare Fund	$200 mn each
• Top-up to the Post-Secondary Education Accounts (PSEA)	$230 mn

* The government will contribute up to half of the $1.5 billion growth capital.

Table 3.7
Budget Summary

	FY2009 Revised		FY2010 Budgeted	
	$ Billion	% of GDP	$ Billion	% of GDP
Operating Revenue	38.6	14.7	40.7	14.7
Total Expenditure	42.9	16.3	46.4	16.7
Operating Expenditure	31.7	12.1	33.9	12.2
Development Expenditure	11.1	4.2	12.5	4.5
Primary Surplus/Deficit (-)	**-4.3**	**-1.6**	**-5.6**	**-2.0**
Less: Special Transfers (excluding top-ups to endowment/trust funds)	4.2	1.6	1.6	0.6
Basic Surplus/Deficit (-)	**-8.5**	**-3.2**	**-7.2**	**-2.6**
Add: Net Investment Income/Returns Contribution	7.0	2.7	7.8	2.8
Less: Special Transfers (top-ups to endowment/trust funds)	1.4	0.5	3.6	1.3
Budget Surplus/Deficit (-)	**-2.9**	**-1.1**	**-3.0**	**-1.1**

Note: Figures may not tally due to rounding-off effects.

The fiscal policy stance will be close to neutral in 2010.

For CY2010, the Fiscal Impulse (FI) measure is estimated at -0.1% of GDP. (Chart 3.34) This suggests a slightly contractionary fiscal policy stance compared to the previous year, as a result of the withdrawal of earlier stimulus measures included in the FY2009 Resilience Package as well as the upswing in revenues generated by the recent recovery. This stance is appropriate, given that the output gap turned positive in Q1 this year.

Since it is designed to gauge the direction of change in the budgetary stance relative to the previous year, the FI measure provides an indication of the short-term aggregate demand stimulus arising from fiscal policy. At -0.1% of GDP, the initial impact of the budget on aggregate demand in 2010 will not be very significant. The FY2010 Budget, however, has longer-term effects. Estimating the full quantitative impact of the Budget – taking into account microeconomic adjustments where firms re-optimise their input mix; and the macroeconomic multiplier effects – requires a general equilibrium model such as the Monetary Model of Singapore (MMS). (Box B presents the simulations of the medium-term macroeconomic effects of the key supply-side budgetary measures.)

Chart 3.33
Components of the Budget

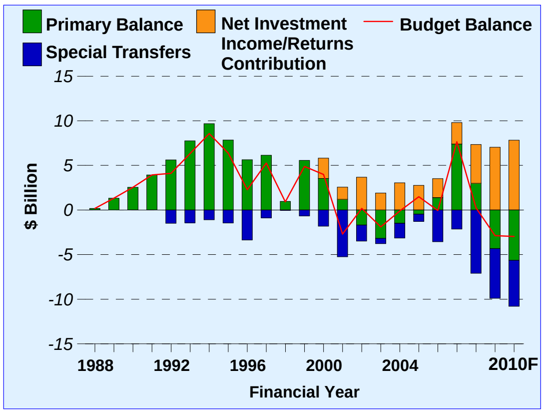
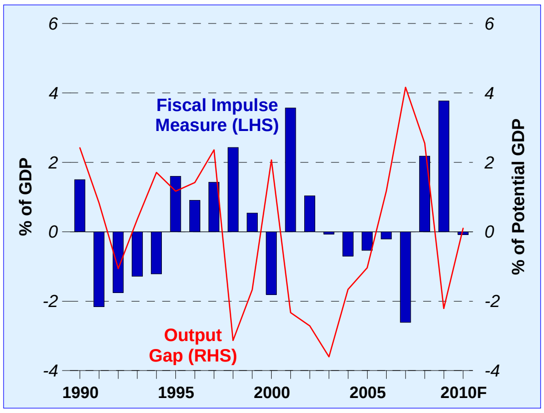


Chart 3.34
Fiscal Impulse Measure and the Output Gap



Source: EPG, MAS estimates

The FY2010 Budget will have little impact on demand in the short run but will prepare Singapore for productivity-driven growth.

The MMS simulations confirm that the Budget will not have a substantial impact on GDP in the short run, as compared to the FY2009 Resilience Package. However, the results of the measures to encourage capital deepening and enhance innovation are more apparent in the later years, generating increases in labour force productivity, and catalysing changes in business and worker behaviour that will support the economy's growth in the next phase of its development.

Box B
Medium-Term Macroeconomic Effects of Budget FY2010:
Simulations from the Monetary Model of Singapore

In this box, the medium-term macroeconomic effects of the key supply-side budgetary measures are simulated using the Monetary Model of Singapore (MMS). Table B1 provides a list of these measures, including changes to the foreign worker levy and capital deepening initiatives, and illustrates how EPG conceptualises their impact on the economy over the period 2010 to 2014. The simulation results for the measures taken altogether are presented in Chart B1 as deviations from the baseline settings, which already incorporate the government's cash receipts and outlays projected for CY2010, as captured in the FI measure.

As a result of the phased increase in the foreign worker levy, firms progressively reduce their foreign workforce, with the impact becoming stronger after 2010. To replace foreign workers and support new capital formation, local employment will increase relative to baseline. Chart B1(a) shows that the local unemployment rate steadily declines relative to the baseline before hitting 3.5% in 2012.[1/] Thereafter, a tighter local labour market, and consequently higher wages, should encourage firms to pursue productivity-driven growth. The simulations show that the budgetary measures have offsetting effects and the overall impact on GDP growth is minimal through the transition period.

The impact of the policies designed to encourage capital deepening and enhance innovation becomes more apparent in later years. Chart B1(b) shows that private non-residential investment increases gradually and will be 4.6% higher than the baseline by 2014. Together with the increase in private investment, there will also be a rise in labour productivity of 1.7% above baseline in 2014.[2/] Consequently, labour productivity growth over the next five years will rise by about 0.4% point on average, thus reaching the 2-3% p.a. productivity growth target envisaged in the ESC recommendations. (See the Special Feature for more details.) Furthermore, the rise in labour productivity translates into higher nominal wages that outpace the increase in CPI inflation, resulting in a real wage increase of almost 2% over baseline by 2014. (Chart B1(c))

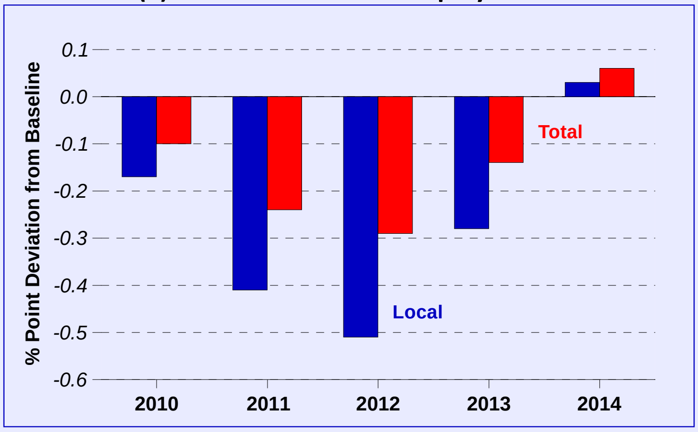
1/ The potential gains for the local labour force may in fact be limited, as the degree of substitution is constrained by structural rigidities, such as job-worker mismatches, which can be exacerbated by downturns, changes in product lines, or changes in job preferences among workers.

2/ MMS shows that capital deepening is associated with gains in labour productivity, due to the introduction of new and better equipment, R&D spending, etc.

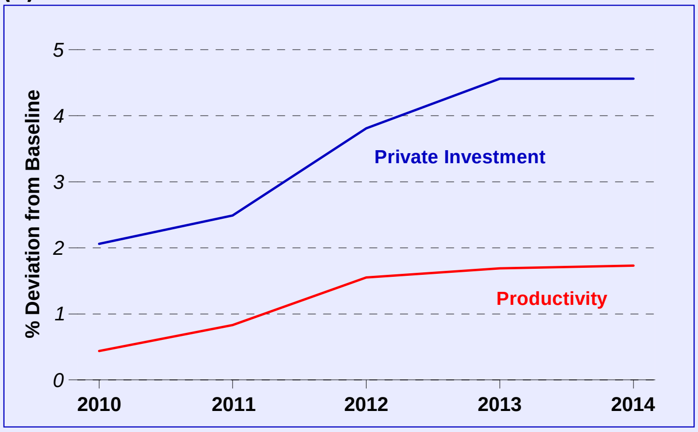
In sum, while the economy may experience some cost pressures in the near term due to the tighter foreign worker policy, initiatives to deepen capital and promote innovation can be expected to generate increases in labour productivity that will provide some relief from these pressures. While the FY2010 Budget may not have a substantial impact on short-term GDP growth, it should establish the necessary conditions to prepare Singapore for the next phase of productivity-driven growth.

Chart B1
Total Impact of Supply-Side Measures on Key Macroeconomic Variables

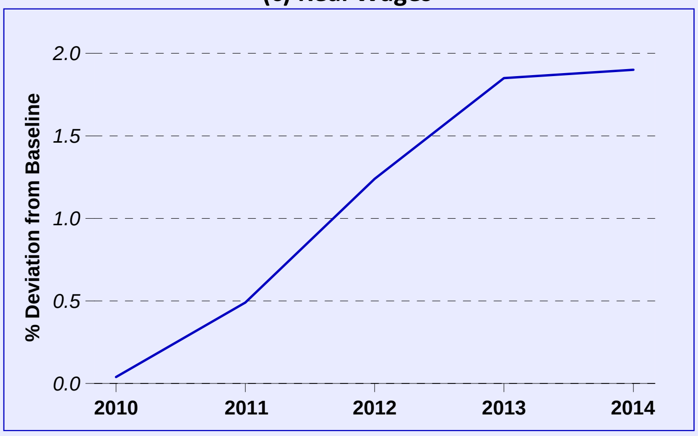
(a) Local and Total Unemployment Rate



(b) Private Non-residential Investment and Labour Productivity



(c) Real Wages



Source: EPG, MAS estimates

Table B1
Macroeconomic Effects of Selected Measures in the FY2010 Budget

	2010	2011	2012	2013	2014
Raising Productivity • Productivity and Innovation Credit ($480mn/yr over 5 yrs) • National Productivity Fund ($1bn over 5 yrs) • Raising Foreign Worker Levies **Growing Globally Competitive Companies** • PACT ($250mn over 5 yrs) • Business Associations as Growth Champions ($100mn over 5 yrs) • National Research Fund Top-up ($1.5bn) • Private Sector R&D through Public-Private Partnership ($450mn over 5 yrs) • Catalyse Growth Capital through Co-Investment ($1.5bn over 10 yrs)	**Key Developments**				
	Set-up phase for medium-term measures.	Tightening of foreign worker levy exerts pressure on production and the labour market. Firms lower production and employment and substitute local workers for foreign workers. Incentivised by tax breaks and seed capital, firms begin to implement capital- and innovation-deepening measures.		Firms continue to adapt to the new relative wage between local and foreign workers. Capital- and innovation-deepening measures begin to yield rewards. The capital-to-labour ratio rises, labour force productivity increases, and firms recalibrate to higher production levels. Skills training and upgrading programmes begin to bear fruit.	
	Major Effects				
	Marginal impact on aggregate demand and prices.	Output and total employment dip below baseline, although local workers may benefit initially as firms hire locals to replace foreign workers. Cost pressures may start to surface.		The dampening impact of cost pressures on output and total employment begins to dissipate. Expansion in labour productivity mitigates the increase in unit labour costs in previous years.	