3.1 External Outlook

Divergent Growth amid New Uncertainties

Economic momentum is picking up in the G3, but Asia ex-Japan faces new uncertainties.

Growth prospects for the advanced and emerging Asian economies have further diverged since the last *Review* in April 2013. (Table 3.1) The positive momentum in the US economy appears to have continued into Q3 2013, although the federal government shutdown and fiscal impasse over the debt ceiling in October could have dented sentiment and activity. More encouragingly, the economic recovery in the Eurozone is gaining traction, with short-term indicators suggesting that the Q2 rebound in investment spending has not flagged. The outlook for Japan has strengthened considerably, as a string of recent data releases point to sustained consumer spending and upbeat corporate sentiment.

An improvement in the growth prospects of the advanced countries, while by no means assured, would be expected to boost the exports of Asia's trade-dependent economies. Nevertheless, new risks have begun to cloud the growth outlook for Asia ex-Japan. First, China's renewed drive to restructure its economy has led to a growth slowdown, and may result in further slippages in activity in the short term. Second, the anticipated tapering of the Federal Reserve's asset purchases has sparked a reversal of capital flows from the region, draining liquidity and pushing up lending rates. Third, the credit cycle which helped to fuel domestic demand in the ASEAN economies over the last few years seems to be ebbing at the same time as fiscal spending moderates. Although the Federal Reserve's decision to delay QE tapering in September provided a temporary reprieve, renewed volatility in financial markets cannot be ruled out, especially for economies with weaker fundamentals.

Consequently, growth forecasts for China and the ASEAN-4 economies have been revised downward for 2013. (Chart 3.1) A pickup in the global economy is expected only in 2014, led by the G3 economies. On a trade-weighted basis, GDP growth in Singapore's key trading partners is projected to rise to 4.3% next year, from 3.8% in 2013.

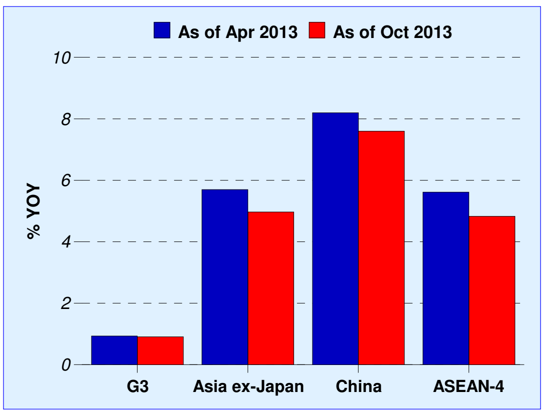
Table 3.1
GDP Growth Forecasts

(%)

	2012	2013F	2014F
Total*	**3.9**	**3.8**	**4.3**
G3*	**1.2**	**0.9**	**1.7**
US	2.8	1.6	2.6
Eurozone	−0.6	−0.3	0.9
Japan	2.0	1.9	1.7
Asia ex-Japan*	**5.1**	**5.0**	**5.4**
NIE-3*	**1.6**	**2.8**	**3.6**
Hong Kong	1.5	3.0	3.6
Korea	2.0	2.7	3.5
Taiwan	1.3	2.4	3.6
ASEAN-4*	**6.1**	**4.8**	**5.2**
Indonesia	6.2	5.6	5.5
Malaysia	5.6	4.3	5.1
Thailand	6.5	3.5	4.4
Philippines	6.8	7.1	6.1
China	7.7	7.6	7.4
India**	5.1	4.6	5.7

Source: CEIC and Consensus Economics Inc.
* Weighted by shares in Singapore's NODX.
** Forecasts refer to fiscal year ending March.

Chart 3.1
Changes in 2013 GDP Growth Forecasts



Source: Consensus Economics Inc. and EPG, MAS estimates

The US recovery faces headwinds on the macro policy front.

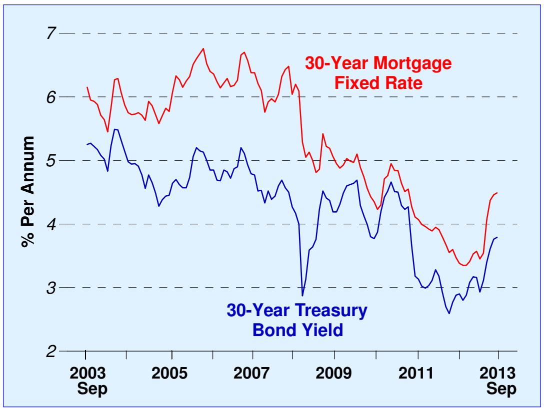
Having registered stronger growth in Q2 2013, US economic activity remained at a relatively high level in early Q3. Industrial production expanded by an average of 0.3% m-o-m SA in Q3, slightly faster than in H1 2013. However, private consumption growth moderated, with food receipts and retail sales rising by a slower 0.2% m-o-m SA in these two months. Recent ISM PMI readings confirm that the expansion in the overall economy is still ongoing, although growth in the services sector might soften somewhat. Following the Federal Reserve's signals on the tapering of its QE programme in May, mortgage rates have risen in tandem with bond yields, by a cumulative 104 bps since April, thus tempering home sales activity. (Chart 3.2)

The partial government shutdown in the first two weeks of October has had a clear negative impact on sentiment. The University of Michigan Consumer Confidence Index fell from 77.5 in September to 73.2 in October, while the Gallup Economic Confidence Index registered its largest two-week decline in 2013 over the 1–13 October period. (Chart 3.3) Nonetheless, the impact on overall growth is expected to be relatively modest and the latest Beige Book shows that the economy continued to expand from September through early October. The last-minute agreement by Congress to extend the debt ceiling will allow economic conditions to normalise, although concerns remain as government funding will only extend to early 2014. At this stage, consensus forecasts are for US growth of 1.6% in 2013 and 2.6% in 2014.

The Eurozone is on track to grow modestly in 2014.

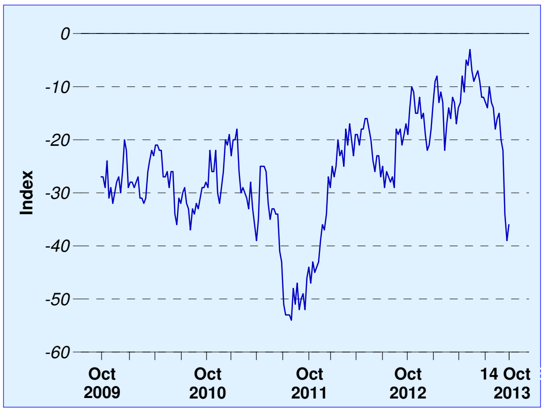
Economic prospects in the Eurozone have brightened, as a return of confidence in the industrial sector has spurred investment spending. In September, the European Commission's Industrial Confidence Indicator rose to its highest level since February 2012. Moreover, in July, the EU Council granted some countries with excessive fiscal deficits an additional one to four years to bring their deficits in line with the targets set out in the Stability and Growth Pact. (Chart 3.4) These extensions will mitigate the required annual fiscal adjustments for these countries, thus reducing the risk of an overly rapid budget consolidation snuffing out the nascent recovery.

Chart 3.2
US Financing Conditions



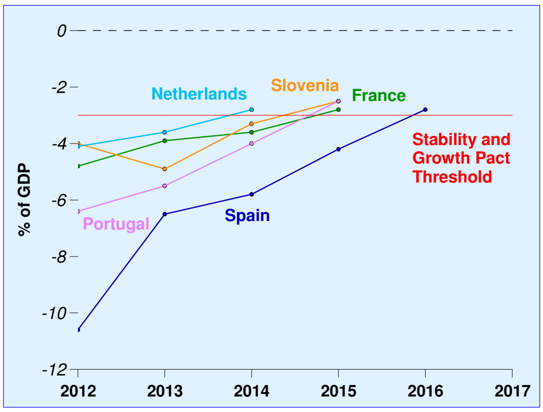
Source: CEIC

Chart 3.3
US Economic Confidence Index (Weekly)



Source: Gallup

Chart 3.4
New Fiscal Adjustment Paths in Selected Eurozone Countries



Source: Eurostat, EU Commission

Even as fiscal drags ease in the Eurozone, the correction of external imbalances in deficit countries has proceeded apace. Aided by sharp reductions in unit labour costs, Spain and Portugal, in particular, have turned in strong export performances and contributed to a record Eurozone current account surplus of 2.2% of GDP in Q2 2013. Meanwhile, tentative signs of stabilisation in the region's housing markets have emerged. The Eurozone House Price Index increased by 0.3% q-o-q in Q2, bucking the declining trend observed in the previous three quarters. Overall, Eurozone growth is likely to pick up gradually, with the latest consensus forecasts pointing to a marginal contraction of 0.3% this year and modest growth of 0.9% in 2014.

Japan's economic revival will be sustained ahead of a consumption tax hike.

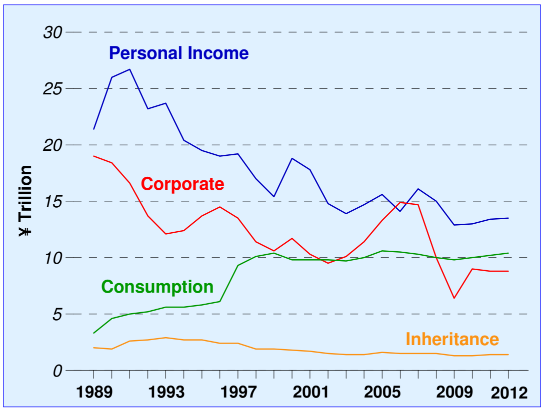
Economic growth in Japan during the latter part of 2013 and early 2014 will be sustained by robust public and private demand. The fiscal spending package approved earlier this year will bolster public investments while improved business sentiment and corporate profits, which reached their highest levels in six years in Q2 2013, are likely to shore up private capital spending. Household consumption should be supported by rising inflationary expectations and, in the short term, the frontloading of expenditure ahead of the consumption tax hike in April next year.

The Japanese government's decision to increase the consumption tax from 5% to 8% was aimed at reducing Japan's soaring public debt, as tax revenues have fallen steadily over the years in tandem with declining economic growth. (Chart 3.5) To soften the impact of the tax rise on aggregate demand, the government is planning to inject fiscal stimulus worth about 5 trillion yen, equivalent to about 1.0% of GDP. Nonetheless, GDP growth is still projected to slip to 1.7% next year, from 1.9% in 2013.

China has kept a tight rein on credit growth and rolled out new fiscal measures.

Since mid-2013, the Chinese authorities have been restraining credit growth by restricting liquidity to the formal banking sector and tightening regulations on shadow banking. (Chart 3.6) To alleviate the effects of the resulting credit contraction on the real economy, the government subsequently introduced modest fiscal

Chart 3.5
Japan's Tax Revenues*

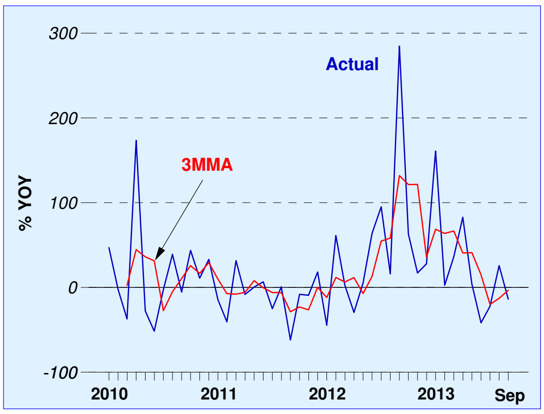


Source: MOF Japan

Note: A consumption tax was introduced in 1989 at 3% and raised to 5% in 1997.

* Data is reported in fiscal year terms.

Chart 3.6
Total Social Financing Growth in China



Source: CEIC

Note: Total social financing is the PBOC's measure of the amount of financing extended to the real economy by the financial sector.

measures to support growth, including tax breaks for small businesses and an acceleration of rail construction. These measures appear to have had the desired impact, with GDP growth recovering to 7.8% y-o-y in Q3. Industrial production accelerated to double-digit growth of 10.1% for the first time in three quarters, even as export orders remained lacklustre. Fixed investment continued to be buoyant, while retail sales growth edged up alongside a tighter labour market and higher disposable household incomes.

Going into next year, Chinese authorities' fine-tuning of macro policies should continue to cushion economic activity, even though the ramping up of structural reforms may cause some temporary displacement of resources. At the same time, the anticipated cyclical rebound in exports to the G3 should provide additional support to the industrial sector. On balance, GDP growth is projected to moderate from 7.7% in 2012 to 7.6% in 2013, and 7.4% in 2014.

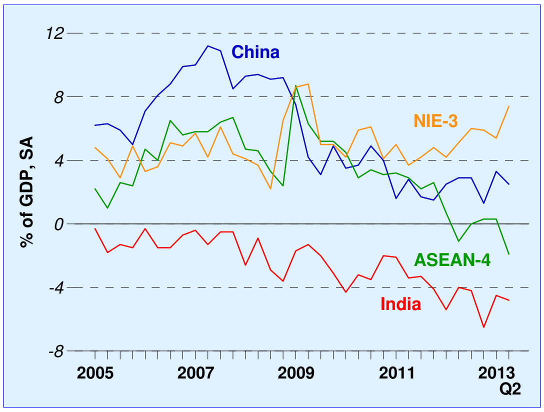
China's slowdown will have some impact on regional trade flows …

In the short term, the policy-induced slowdown in China is expected to weigh on the export performance of the resource-rich ASEAN economies and, to a lesser degree, the NIEs. EPG's estimates show that, compared with the NIEs, a higher share of exports from Indonesia, Malaysia and Thailand to China was channelled towards serving Chinese domestic demand during the period 2009–12. A significant proportion of ASEAN's exports to China consisted of raw materials, which are overwhelmingly tied to Chinese investment. Therefore, to the extent that Chinese restructuring measures lead to a temporary pullback in aggregate demand, ASEAN's growth would be dampened via the commodity channel.

… although the NIEs will be supported by an upturn in trade with the G3.

The impact of China's slower growth on the trade-oriented NIEs is expected to be mitigated by the upturn in the G3 economies and the global electronics cycle. Given their stronger fundamentals and sustained trade surpluses, these economies were less affected by the emerging markets sell-off in May and June this year. (Chart 3.7) Indeed, NIE governments have been able to pursue expansionary fiscal policies, which should prop up domestic demand in the next few

Chart 3.7
Current Account Balances in Asia ex-Japan



Source: CEIC and EPG, MAS estimates

quarters. As a result, growth in the NIEs is expected to accelerate to 2.8% this year and an even stronger 3.6% in 2014.

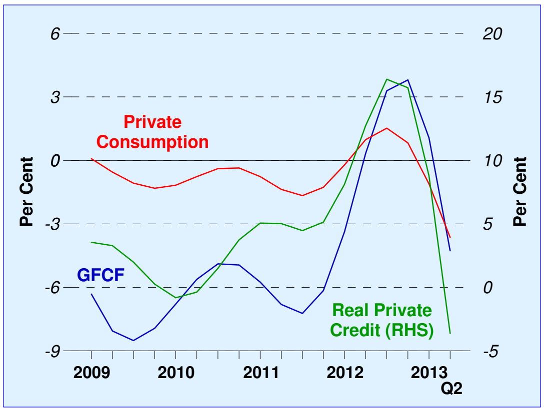
The ebbing credit cycle has slowed domestic demand in ASEAN.

In contrast, growth prospects in the ASEAN-4 economies have dimmed somewhat, as the cyclical drivers that have hitherto supported domestic demand continue to dissipate. (Chart 3.8) EPG's estimates show that credit has played an important role in boosting domestic demand, accounting for about 25% of the variation in private consumption and 35% of the variation in investment. Hence, a waning credit cycle, alongside an outflow of capital from the region and higher interest rates, is expected to translate into slower growth in fixed investment and private consumption in the quarters ahead. This compression in domestic demand will be more acute in Indonesia, where higher inflation and a weaker current account have necessitated more aggressive policy tightening. (Chart 3.9) Initiatives to rationalise fiscal subsidies, such as fuel price hikes in Indonesia and Malaysia, will further restrain private consumption growth in the short term.

The slowdown in domestic demand will, however, be mitigated by a modest recovery in external demand, aided by the recent depreciation in the regional currencies. Moreover, structural drivers of growth in the ASEAN region remain relatively intact. Incomes are well supported by healthy labour markets, while FDI inflows continue to be attracted to the region, alongside an accelerated rollout of infrastructure projects. For example, Thailand is embarking on an ambitious 2 trillion baht infrastructure programme over the next seven years, while the Philippines government is accelerating its Public-Private Partnership (PPP) projects. On balance, GDP growth in the ASEAN-4 economies is expected to slow to 4.8% in 2013 from 6.1% in 2012, before picking up modestly to 5.2% in 2014.

In India, private consumption is likely to ease further as the effects of the rupee's recent depreciation are reflected in higher import and fuel prices. Weak business confidence and uncertainty ahead of next year's parliamentary elections will keep investment muted. However, agricultural output is likely to be boosted by a good monsoon season, although this will

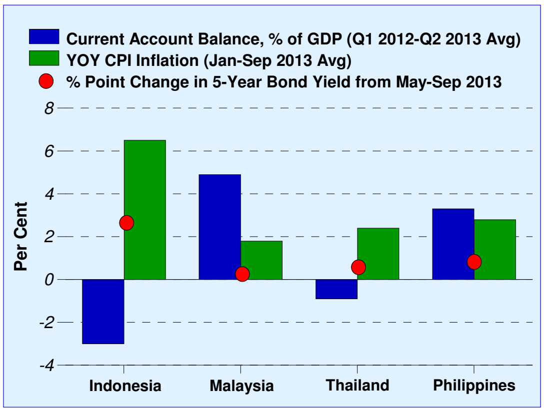
Chart 3.8
Credit and Domestic Demand Cycles in ASEAN-4



Source: CEIC and EPG, MAS estimates

Note: Cycles are obtained by smoothing the data with a band-pass filter.

Chart 3.9
Current Account, Inflation and Bond Yields in ASEAN-4



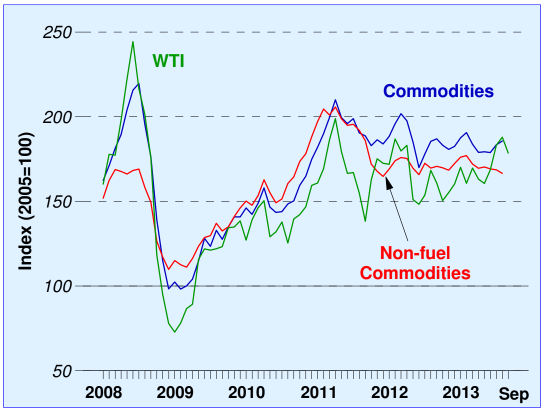
Source: Bloomberg, CEIC and EPG, MAS estimates be insufficient to offset the sluggishness in both industry and services. All things considered, India's growth is projected to decelerate to 4.6% in FY2013 and rebound to 5.7% in FY2014, as policy uncertainties lift and business confidence improves.

Inflation will continue to be benign, with exceptions.

Inflationary pressures will be kept in check by stable commodity prices even as the output gaps in the G3 economies narrow gradually with improving demand conditions. (Chart 3.10) In Japan, CPI inflation is expected to turn positive as the weaker yen pushes up import prices, and the consumption tax hike takes effect in April 2014. Consequently, the average inflation rate in the G3 is projected to ease to 1.3% this year from 1.9% in 2012, before climbing to 1.7% next year.

Price pressures are expected to be contained in most of Asia ex-Japan. However, CPI inflation in India and Indonesia remain elevated due to the pass-through from the sharp depreciations of their currencies and cutbacks in fuel subsidies. Nonetheless, slackening domestic demand and monetary tightening should help to limit price increases. In China and the NIEs, higher food inflation due to adverse weather conditions will be offset by persistent producer price deflation, which will dampen the prices of manufactured goods. Overall, inflation in Asia ex-Japan is likely to remain stable at 4.1% in 2013 and 2014.

Chart 3.10
Commodity and Oil Prices



Source: Bloomberg and IMF

3.2 Outlook for the Singapore Economy

Gradually Regaining Momentum

The Singapore economy is forecast to register modest growth in 2013 and 2014.

Singapore's near-term outlook will be influenced by the relative growth performance in the developed and emerging market economies, which are presently at different stages of the business cycle. Emerging Asia will need to adjust to the rise in global interest rates, while China is poised for some slowdown in the short term as policymakers attempt to steer the economy towards more balanced growth. Conversely, the recovery in the advanced economies appears to be on a surer footing. The resultant pickup in G3 final demand should countervail to some extent the deceleration in emerging Asia as a whole, and help support global economic growth. In turn, this should give a positive impetus to the Singapore economy, especially its external-oriented sectors.

Nonetheless, downside risks remain. The recovery in the advanced economies is by no means assured. Several wildcards—such as policy missteps associated with the unwinding of QE measures by the Federal Reserve, failure to satisfactorily resolve the US budget and debt disagreements in 2014 and a re-escalation of sovereign debt concerns in the Eurozone—could present fresh setbacks to the turnaround. In Asia, an abrupt downshift in activity could occur if the Chinese economy experiences an unexpected hard landing, or if regional economies experience balance of payment difficulties triggered by an inability to adjust to less accommodative global monetary conditions.

EPG's baseline view remains that growth of the Singapore economy should come in at 2.5–3.5% for the whole of 2013, and is unlikely to be significantly different in 2014. External-facing activities are expected to provide the main support and domestic demand should still be resilient. However, bouts of volatility could still occur from time to time, until the global recovery becomes more even and durable. On the domestic front, supply-side constraints could translate into temporarily larger increases in business costs and constrain the extent of the cyclical upturn.

Singapore remains more exposed to the advanced economies than to emerging Asia.

The slowing growth in emerging Asia is unlikely to negate the positive effects from a recovery in the developed countries. To examine this further, Chart 3.11 presents the OECD-WTO's estimates of Singapore's value added embodied in foreign final domestic demand, expressed as a percentage of Singapore's GDP. These estimates represent the amount of domestic value added from Singapore-based producers of goods and services that was exported—both directly and indirectly via its trading partners—to other economies for consumption and investment.[1] They therefore provide a useful way to assess the relative extent of support provided by the G3 and emerging Asia to Singapore's export-facing industries.

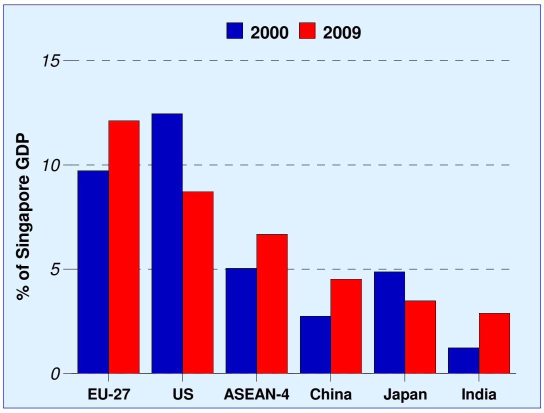
Singapore's reliance on the domestic demand of its emerging market neighbours, namely the ASEAN-4, China and India, rose considerably through the 2000s and accounted for 14% of its GDP in 2009.[2] Nonetheless, Singapore remained more tied to domestic demand in the advanced economies, with its exposure to the G3 totalling 24% of GDP.

A further sectoral breakdown indicates that the positive spillovers from a G3-led recovery would likely be broad-based. The manufacturing, trade-related services and financial & business services sectors each account for about a third of the total value added exported by Singapore to the industrial countries during 2009. (Chart 3.12) In contrast, Singapore's exposure to the Asia-6 economies was more concentrated in manufacturing and trade-related services. Within the manufacturing industry, electronics and chemicals exhibited the greatest value-added linkages with the advanced economies.

Rising G3 demand should facilitate a recovery in the global IT industry ...

In the global IT industry, an incipient recovery in recent months has been supported by the turnaround in the developed countries. Over the past two years, worldwide semiconductor sales have largely been

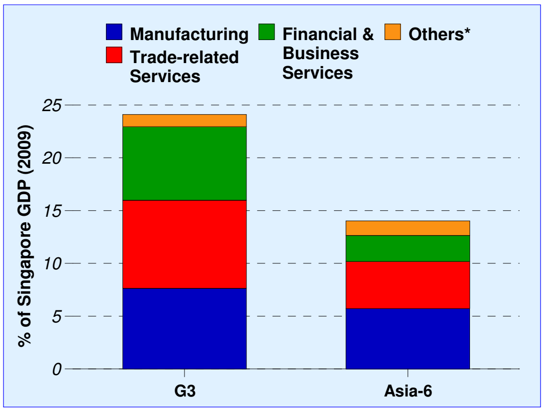
Chart 3.11
Singapore's Value Added Embodied in Foreign Final Domestic Demand (by Destination)



Source: OECD-WTO TiVA Database

Note: ASEAN-4 comprises Indonesia, Malaysia, Thailand and the Philippines.

Chart 3.12
Singapore's Value Added Embodied in Foreign Final Domestic Demand (by Destination and Sector)



Source: OECD-WTO TiVA Database

Note: Asia-6 comprises China, India, Indonesia, Malaysia, Thailand and the Philippines.

* Including primary goods, utilities, construction and other services.

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[1] The OECD and WTO derived the domestic value-added content of the gross exports of 57 selected economies, after taking into account their bilateral trade flows, as well as intermediate imports embodied in their exports based on a harmonised set of their Input-Output tables.

[2] The latest estimates in the OECD-WTO TiVA Database are based on 2009 data.

flat amid a sluggish global economy. However, high-frequency indicators suggest that the industry is emerging from this malaise. Following a 2.4% q-o-q SA increase in Q2 2013, worldwide chip sales expanded by 4.5% in Jul–Aug, led by gains in the G3, which accounted for over 90% of this growth. (Chart 3.13)

As the recovery in the industrial economies gains traction, the global IT industry should likewise see a more decisive upturn, given its increasing responsiveness to business cycles. Historically, the global IT cycle has tended to move in tandem with broader macroeconomic developments. Notably, the correlation between global GDP growth and worldwide semiconductor sales seemed to have tightened during the latter half of the 2000s. (Chart 3.14) This can be corroborated by regression analysis, which shows that the near-term sensitivity of global chip sales to business cycle fluctuations has increased, both in terms of the speed and magnitude of response.[3]

From a product perspective, the consumer segment is expected to be the key locomotive of global IT growth, in view of the continuing proliferation of mobile computing devices such as smartphones and tablets. Corporate IT demand should also see some expansion ahead, especially if the turnaround in the advanced economies were to gather pace. The Empire State Manufacturing Future Technology Spending index, a forward-looking indicator for IT expenditure among firms in the US, has picked up since its trough in June this year. (Chart 3.15) Further, Microsoft's withdrawal of support for Windows XP in Q2 2014 should prompt a renewal in the corporate IT cycle as firms will be incentivised to adopt updated versions of the Windows platform. Supply-side developments are similarly expected to facilitate an increase in production. PC inventory stockpiles in the US, for instance, have reached unprecedentedly low levels following a destocking phase last year.

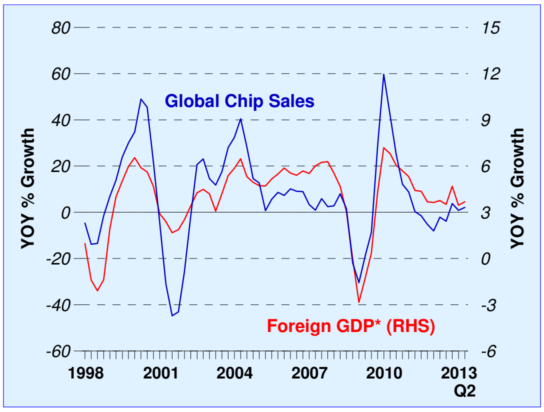
… thereby providing some support to Singapore's electronics sector.

Taking all things into consideration, demand and supply conditions are supportive of a firmer recovery in the global IT industry, which should in turn provide an

Chart 3.13
Global Chip Sales

Source: Semiconductor Industry Association and EPG, MAS estimates

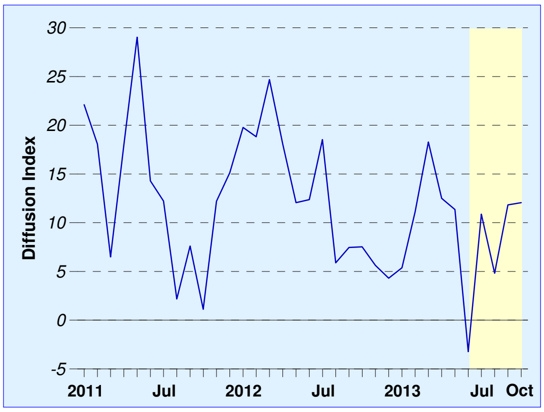
Chart 3.14
Global Chip Sales and Foreign GDP



Source: Semiconductor Industry Association and EPG, MAS estimates

* Weighted by shares in Singapore's NODX.

Chart 3.15
Future Technology Spending in the US



Source: CEIC

[3] Over the period 1998–2005, the global GDP growth variable was statistically significant in predicting chip sales with a lag. However, when the estimation window was recursively expanded to Q2 2013, only the contemporaneous GDP growth indicator was statistically significant, thereby suggesting that global chip sales now appear to react more quickly to business cycle fluctuations. Moreover, the magnitude of response has intensified in the late 2000s.

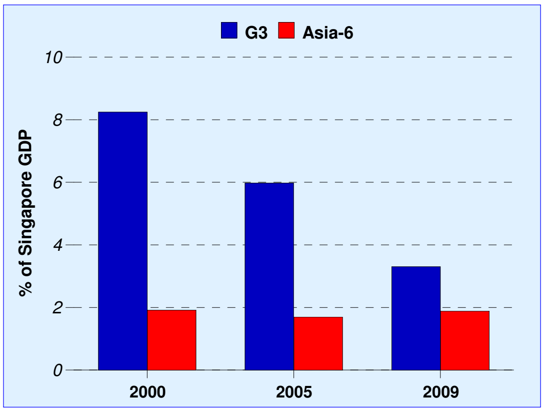
uplift to Singapore's electronics industry. However, compared to past episodes, the extent to which the domestic electronics industry can benefit from the cyclical tailwinds in the G3 economies may be more modest this time round. In particular, the share of Singapore's gross nominal IT domestic exports to the developed countries fell by 10% points over the latter half of the 2000s. The waning impact of G3 demand is likewise evident in value-added terms. While the OECD-WTO estimates affirm that Singapore's IT industry remains more exposed to the G3 than to Asia ex-Japan, the gap has narrowed significantly over the decade. (Chart 3.16)

Other external-oriented activities are likewise expected to pick up …

More broadly, the upward momentum in the domestic manufacturing industry is set to galvanise further expansions in the trade-related services sectors. Wholesale trade activity, for instance, should see a boost from rising G3 demand, even as emerging Asia continues to account for the bulk of Singapore's re-export trade. Notably, Singapore's re-exports to the developed countries have grown strongly thus far in 2013, outpacing re-exports to the Asia-6 countries. (Chart 3.17) This came on the back of increased demand for telecommunications, electronics and chemical products, which together account for 33% of the non-oil wholesale trade sector. An improvement in wholesale trade activity should in turn create positive spillovers to the transport & storage industry.

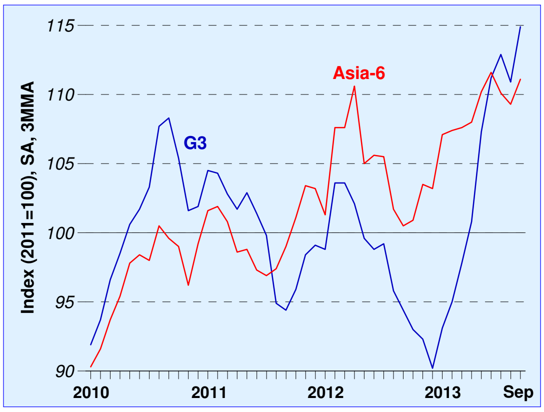
A more entrenched recovery in the advanced countries would also raise investor confidence and impart upside to Singapore's financial services sector, especially the sentiment-sensitive activities such as stock broking and forex trading. The prospect of firmer growth in the G3, however, does not preclude further turbulence in financial markets. Renewed concerns over unresolved fiscal issues in the US could precipitate another bout of uncertainty, and some volatility can be expected when the Federal Reserve shifts into tapering mode.

Chart 3.16
Singapore's IT Value Added Embodied in Foreign Final Domestic Demand



Source: OECD-WTO TiVA Database

Chart 3.17
Singapore's Real Re-exports by Destination



Source: EPG, MAS estimates

… even though support from Asia could slow somewhat in the short term.

At the same time, Singapore's financial services industry could face some downdrafts from Asia. With growth in offshore non-bank loans being largely fuelled by East Asian credit demand in recent years, lending activity in this segment could moderate as several regional economies decelerate and enter a credit tightening phase. (Chart 3.18) Moreover, the fund management industry has considerable exposure to the region, with 70% of total assets under management invested in the Asia Pacific in 2012, according to MAS' Singapore Asset Management Industry Survey. Although there is strong interest at present from global fund houses seeking to set up or expand their Asian presence in Singapore, there could be some near-term rebalancing of investment portfolios away from the region should the G3 continue to strengthen relative to Asia. This could potentially dampen demand for fund management services out of Singapore.

Domestic demand should stay broadly resilient.

The domestic-facing industries are likely to remain a key pillar of support, even as their contribution to Singapore's GDP growth falls somewhat. In particular, the momentum in the construction sector and related industries should be sustained over the coming quarters. There are approximately 31,000 and 50,000 residential units due for completion by the end of 2013 and 2014 respectively, significantly higher than the preceding three-year average of around 27,000 units. (Chart 3.19) Concomitantly, a bumper supply of non-residential buildings is slated to come on-stream, alongside major infrastructural projects such as the Downtown Line Stage 1, the Marina Coastal Expressway and the Jurong Rock Cavern—the largest underground hydrocarbon storage facility in the region. (Chart 3.20) These developments augur well for the construction industry, given that a considerable amount of a project's value added is typically realised during the end-phase of the building cycle.

Further, such construction activities will generate significant spillovers to ancillary industries such as real estate management and financial services. Several facilities—including the Ng Teng Fong General Hospital, the Jurong Community Hospital and the new SIM

Chart 3.18
Contribution to ACU Non-bank Lending

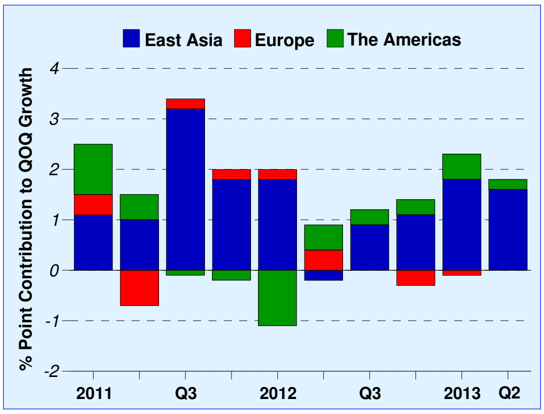


Chart 3.19
Completions of Residential Dwellings

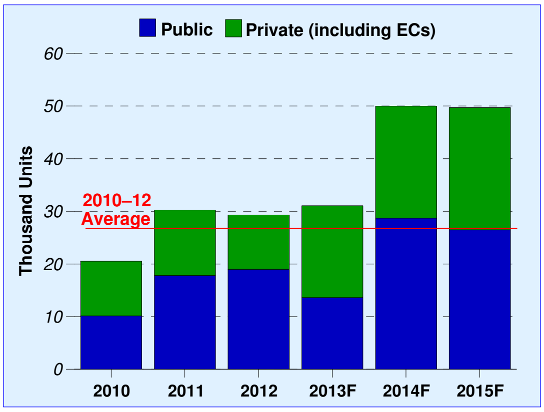
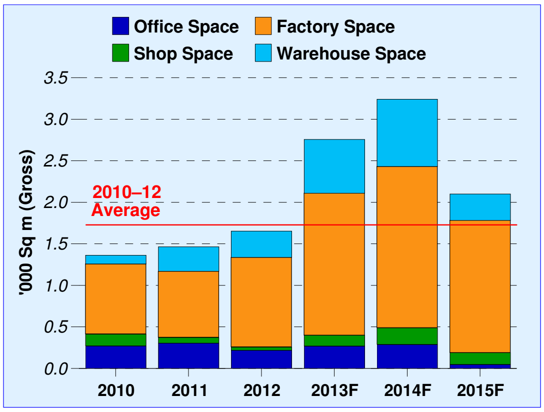


Chart 3.20
Completions of Non-residential Space



Campus at Clementi—are also scheduled to open in 2014, which should facilitate the expansions of healthcare and education services.

In contrast, industries reliant on domestic consumption, such as the retail and food & beverage sectors, are likely to face supply-side headwinds. This is in view of the higher foreign worker levies and stricter dependency ratio ceilings which are being progressively introduced from July 2013. However, the net impact on GDP growth is likely to be mild, given that these consumer-facing industries account for less than 4% of overall production.

Over the medium term, important shifts in global and intra-Asian trade patterns are taking place alongside Singapore's own restructuring initiatives.

Barring severe policy missteps, the G3 is expected to provide the bulk of the improvement in external support to Singapore's economy in the near term. However, Asia should increasingly feature over the longer term, as both a source of demand and a producer of higher value-added products.

Indeed, there have been structural shifts in global trade over the past decade. Asia has emerged as a significant driver of trade flows, particularly in the post-Global Financial Crisis (GFC) period. As highlighted in the April 2011 *Review*, a sizeable proportion of world trade was accounted for by the high income countries in the 1990s.[4] However, by 2009, Asian exporters emerged as prominent suppliers of intermediate, capital and consumption goods. Notably, intra-Asian trade was a key catalyst for the region's trade growth. As global rebalancing continues, there should be some compression of consumption and imports in the deficit economies, which are mostly in the industrialised bloc. An onshoring wave in US manufacturing could further temper the country's import demand. Taken together, these events are likely to presage a continued orientation of Singapore's external growth sources towards emerging Asia.

Important transitions are also underway in intra-Asian trade patterns. (See Box C) Within the merchandise goods space, Singapore could face greater competitive pressures in intermediate goods, especially as China augments its domestic production capabilities. There

[4] Kalra, S (2011), "The Shifting Contours of Global and Asian Trade", *Macroeconomic Review*, Vol. X(1), pp. 21–24.

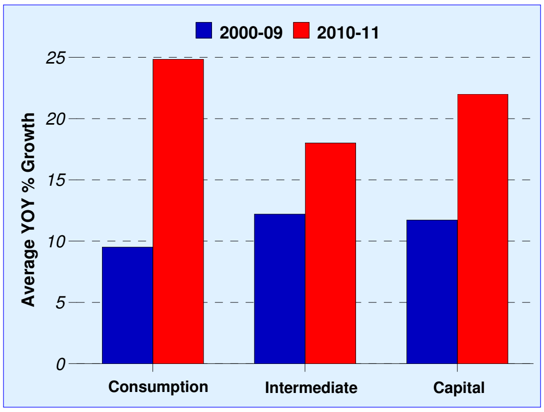
could therefore be some attrition of lower value-added manufacturing activities in Singapore. Viewed in this context, Singapore's ongoing economic restructuring should facilitate this process and at the same time, lay the foundations for the next step up the manufacturing value chain.

On the consumer goods front, Asian demand is projected to rise over time in light of growing affluence in the region and policies aimed at rebalancing growth away from export-led drivers. These developments are favourable to the flourishing of a consumer-oriented ecosystem in Singapore, which spans activities from high value-added manufacturing such as consumer care products and specialty ingredients, to services such as R&D, brand management and advertising. For instance, Givaudan, one of the world's largest fragrances firms, and Mead Johnson Nutrition recently established multi-million dollar manufacturing and research facilities here. Singapore's exports of consumption goods to Asia ex-Japan have also registered the largest improvement in growth rates, compared to that of intermediate goods and capital goods. (Chart 3.21)

Meanwhile, intra-Asian trade in services is poised to accelerate, driven especially by demand from China and the major ASEAN economies. As a key services hub in the region, Singapore is well-positioned to capitalise on this trend. During the latter half of the 2000s, Singapore's services exports to its regional neighbours recorded robust average growth of around 12% annually. Notably, Singapore has made some strides in enlarging its market share in Asian demand for modern services.[5] (Chart 3.22) Of the regional markets, Singapore has become more tapped into demand from ASEAN and the NIEs, particularly in areas such as communications, computer & information and financial & insurance.

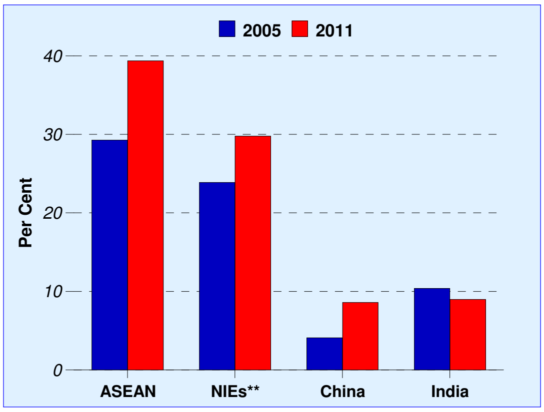
These compositional shifts in global and intra-Asian trade patterns over the medium term are likely to have important implications for Singapore's external growth drivers. Although there is heightened competition in the intermediate goods space, there is scope for Singapore to exploit niche opportunities in high-end consumer goods and modern services.

Chart 3.21
Singapore's Goods Exports to Asia ex-Japan by Category



Source: UN Comtrade and EPG, MAS estimates

Chart 3.22
Singapore's Share of Asian Demand for Modern Services*



Source: WTO and EPG, MAS estimates

* Modern services comprise communications, computer & information, financial & insurance and intellectual property-related activities.

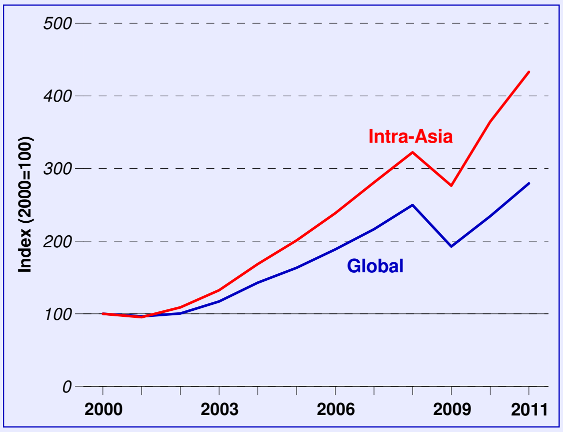
** NIEs comprise Hong Kong and Korea.

5 Singapore's share in the Chinese market, for instance, refers to Singapore's modern services exports to China expressed as a percentage of China's imports of such services.

Box C
Shifts in Regional Trade

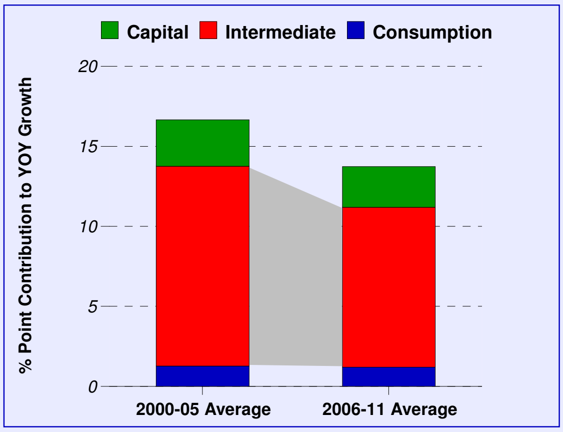
Global trade in goods and services recorded strong growth from 2000 to 2011, which averaged 11% per annum, outpacing the expansion in GDP over the same period. Nonetheless, there were underlying shifts in global trade patterns during the latter half of the 2000s. Notably, the contribution of advanced economies to global merchandise trade growth fell, while intra-Asian trade flows continued to record firm expansion. In fact, intra-Asian trade flows more than quadrupled over the past decade, significantly outstripping that of global trade. (Chart C1) There were also important shifts in the composition of merchandise trade flows within Asia in the 2000s. This box delves deeper into recent developments concerning intra-Asian trade, both in goods and services, to assess the outlook for the regional economies over the medium term.

Chart C1
Global and Intra-Asian Merchandise Trade



Source: IMF IFS, UN Comtrade and EPG, MAS estimates

Chart C2
Contribution to Intra-Asian Trade Growth by Product Type

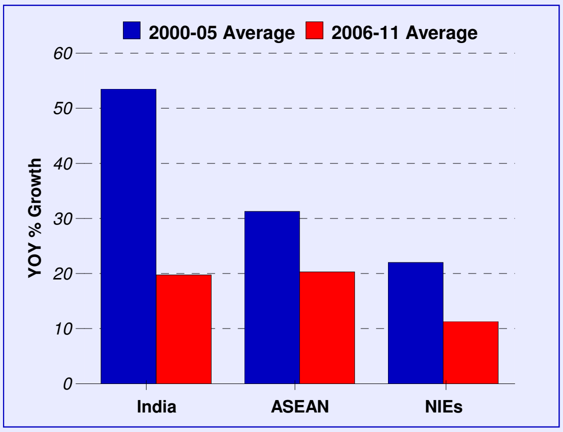


Source: UN Comtrade and EPG, MAS estimates

Asian Trade in Intermediate Goods has Moderated, Reflecting in Part China's Increasing Production Capabilities

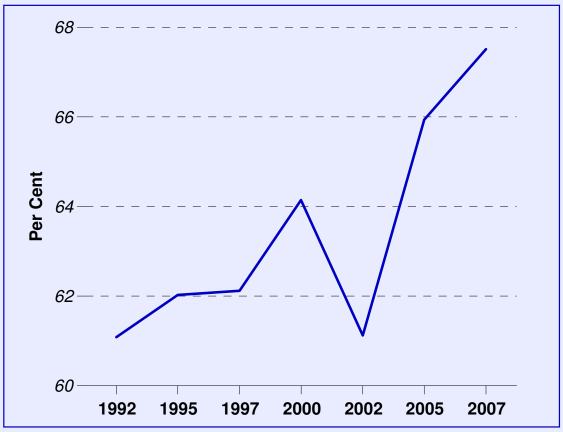
Importantly, over the last decade, intra-Asian trade witnessed a slowdown in the growth of intermediate goods flows, whose contribution to regional trade growth slipped in 2006–11 compared to the first half of the decade. In comparison, the contributions of consumption and capital goods remained largely unchanged. (Chart C2) This was partly on account of a significant moderation in the growth of China's intermediate goods imports from other Asian economies. (Chart C3) Indeed, China has stepped up its production capabilities, as indicated by a rising share of domestic intermediate inputs in manufacturing output, especially during the 2000s. (Chart C4) In particular, China's "internalisation" of midstream production was more pronounced in higher value-added industries such as chemicals and machinery & equipment.

Chart C3
China's Intermediate Goods Imports from Asia



Source: UN Comtrade and EPG, MAS estimates

Chart C4
Share of Domestic Intermediate Inputs in China's Output

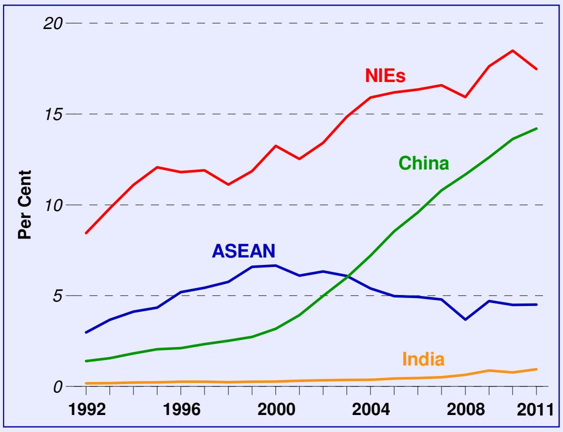


Source: CEIC and EPG, MAS estimates

Some Asian Economies Face Challenges in Scaling the Intermediate Goods Value Chain

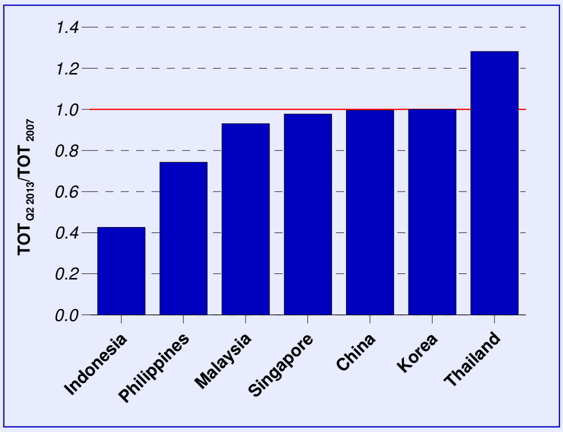
China had seen a surge in its global market share of intermediate goods after 2000.[1/] (Chart C5) The NIEs also gained market share over this period, but the ASEAN economies experienced a decline.[2/] This differentiated performance across the region can also be seen in a terms of trade (TOT) comparison. (Chart C6) The deterioration of ASEAN's terms of trade for electronics goods post-GFC suggests a dip in the value-added content in their exports. Further, estimates by the OECD-WTO indicate that some ASEAN exporters such as Indonesia, Malaysia and the Philippines have seen their value-added content embodied in total foreign final demand (as a percentage of GDP) declining from 2000 to 2009. More specifically, the domestic value-added content of IT exports in Malaysia dipped by 1.6% points as a fraction of GDP, while the Philippines saw a 1.1% points decline. Overall, these developments suggest that ASEAN producers face some challenges in moving up the manufacturing value chain.

Chart C5
Global Market Share of High-Tech Intermediate Goods Exports



Source: UN Comtrade and EPG, MAS estimates

Chart C6
Asia's Electronics Terms of Trade (Q2 2013 Compared to 2007)



Source: CEIC and EPG, MAS estimates
Note: Data for Indonesia and the Philippines is up to Q1 2013.

1/ Based on SITC Revision 3 product classification by UNCTADstat.

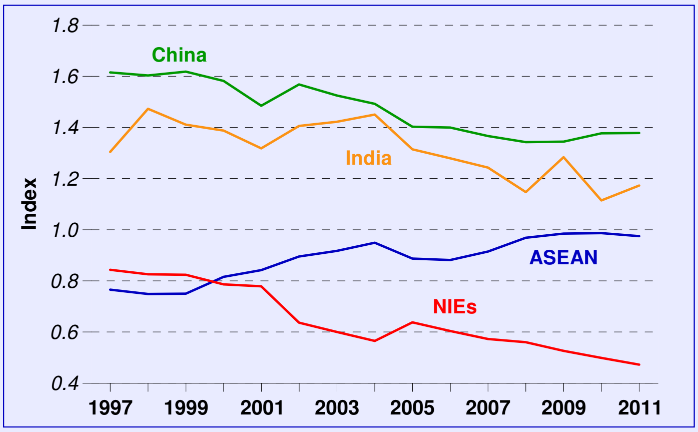
2/ ASEAN comprises Indonesia, Malaysia, Thailand, the Philippines, and Vietnam. NIEs comprise Hong Kong, Korea and Singapore. Taiwan's data is not available for the analysis of its trade in merchandise goods.

There are Opportunities for ASEAN in the More Sophisticated Consumer Goods Space

Nonetheless, ASEAN can potentially take advantage of new opportunities on the consumer goods front. Several developments—such as recent minimum wage hikes in some ASEAN economies, growing momentum in China's urbanisation drive, and labour productivity increases in emerging Asia—have led to rising affluence within the region. This has in turn bolstered demand for consumption goods, with trade being especially robust along the ASEAN-China corridor. More broadly, a breakdown of consumption goods imports by technological intensity shows that Asian import demand from the region for higher-tech consumer goods has increased the most as compared to the low- and medium-tech segments, climbing fivefold over the past decade.

While China has maintained an above-unity revealed comparative advantage (RCA) in the export of consumption goods to the region, this has tapered off over the years.[3/] (Chart C7) In contrast, the RCAs of the ASEAN countries have risen in the latter half of the 2000s. Over this period, ASEAN's exports of certain high-tech consumer products to the rest of Asia—such as optical goods and electronics—saw rapid growth rates. This is corroborated by anecdotal accounts of foreign firms expanding their production bases in some ASEAN countries. For instance, Taiwanese electronics manufacturer Foxconn, a leading contract manufacturer for major global brands such as Apple, has announced plans to start production in Indonesia next year.

Chart C7
Revealed Comparative Advantage: Consumption Goods



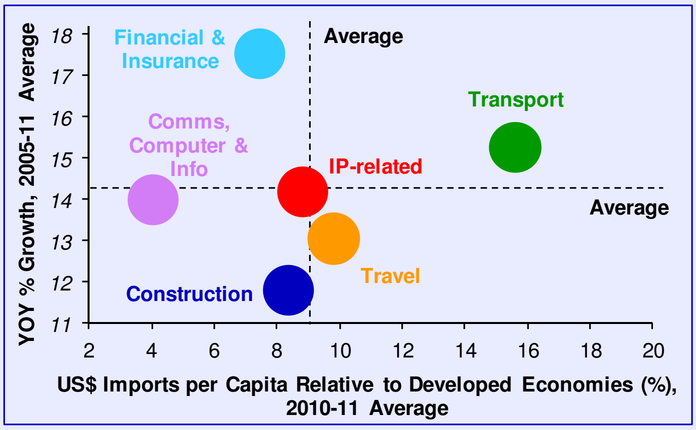
Source: UN Comtrade and EPG, MAS estimates

Rising Asian Demand for Services Augurs Well for the NIEs and India

On the services front, Asia has become an increasingly important source of demand, with services imports doubling from US$394 billion in 2005 to US$821 billion in 2011. A breakdown of services imports by sector shows that this is especially so for modern services such as communications, computer & information, financial & insurance and intellectual property-related (IP) activities. (Chart C8)

3/ The Revealed Comparative Advantage Index is defined as the percentage of a country's exports of a specific good type in its total export basket, divided by the equivalent percentage for a reference set of countries. In this case the reference group comprises ASEAN, NIEs, China and India.

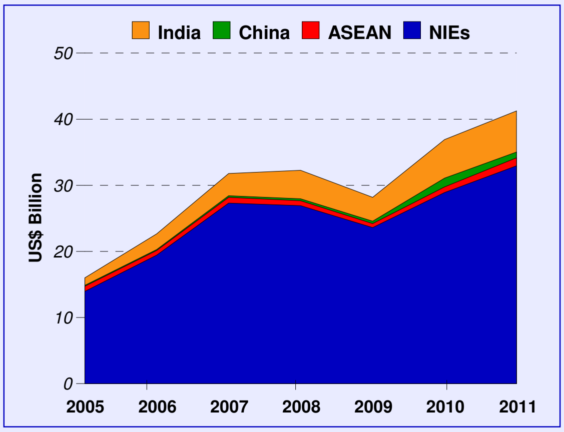
Chart C8
Asian Services Imports By Category



Source: WTO and EPG, MAS estimates

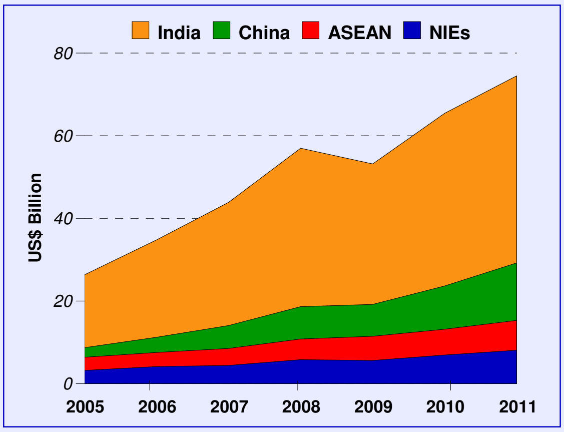
From an end-market perspective, the bulk of Asian demand for modern services stems from China and the NIEs, while that from ASEAN remains modest.[4/] On the supply side, the NIEs and India are likely to be the key beneficiaries of a deepening in modern services trade. For instance, the NIEs have already established a strong lead in financial services exports, accounting for 80% of total Asian exports of such services. (Chart C9) Singapore and Hong Kong are key financial services hubs and have regularly featured in the top four rankings of the Global Financial Centres Index survey since 2007.[5/] A study by PricewaterhouseCoopers released earlier this year also found that Singapore is expected to emerge as the top centre for global fund management over the next two years, and should benefit especially from emerging market demand.[6/] Meanwhile, India's strength is in the communications, computer & information sector, in outsourcing of activities such as helpdesk services, payroll processing and business accounting. Its exports of such services have more than doubled over the period 2005–11, accounting for 61% of Asia's total exports in this segment in 2011. (Chart C10)

Chart C9
Asia's Exports of Financial Services



Source: WTO and EPG, MAS estimates

Chart C10
Asia's Exports of Communications, Computer & Information Services



Source: WTO and EPG, MAS estimates

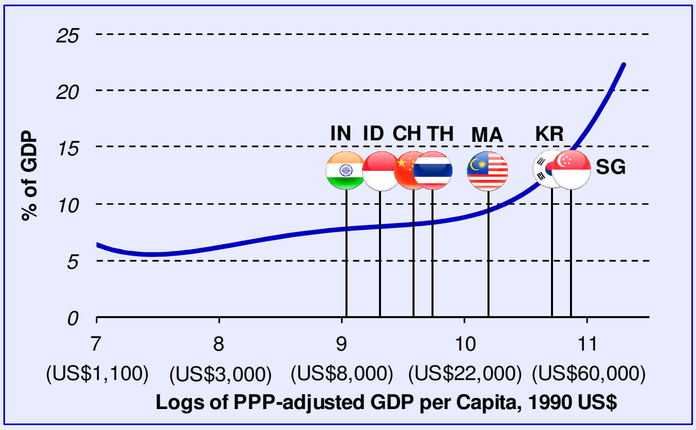
4/ For the analysis of services trade, NIEs comprise Hong Kong, Korea, Singapore and Taiwan.

5/ The Global Financial Centres Index was first compiled in 2007 by Z/Yen Group, a London-based think tank. It ranked 80 financial centres drawing on previous research as well as survey methods.

6/ See PricewaterhouseCoopers (2013).

Currently, Asian demand for services is still at a nascent stage. Using the magnitude of services imports by developed economies as a benchmark, Asian demand for services is on average 9% that of the developed economies. (Chart C8) Over the medium term, Asia's trade in services is expected to rise further. Based on a methodology first employed by Eichengreen and Gupta (2009), a fixed country effect panel regression was used to analyse how income levels, as measured on a PPP-adjusted per capita basis, correlate with the size of services imports as a share of GDP. The data set comprises 134 countries over 1980–2011. Notably, the regression results suggest that China and the major ASEAN economies are near the inflection point at which services demand is set to accelerate. (Chart C11)

Chart C11
Asian Services Imports by Income Level



Sum-up

Trade deepening in Asia has continued apace following a brief interruption from the onset of the GFC. Nonetheless, there have been some compositional shifts in trade flows within the region over the last decade, and these trends are likely to continue into the medium term. More specifically, as China steps up its domestic capabilities in intermediate goods production, the rest of Asia will face greater competition. Notwithstanding these challenges, there could be scope for some ASEAN economies to re-orient their production towards consumption goods. On the services front, the NIEs and India are well-positioned to ride the imminent wave of greater services trade.

<u>References</u>

Eichengreen, B and Gupta, P (2009), "The Two Waves of Service Sector Growth", *NBER Working Paper* No. 14968.

PricewaterhouseCoopers (2013), "Navigating to Tomorrow: Serving Clients and Creating Value", *Global Private Banking and Wealth Management Survey*.

3.3 Labour Market

Labour Supply Constraints will Intensify

In the next few quarters, an anticipated rise in labour demand will come up against binding labour supply constraints across more sectors of the economy. Accordingly, the resident unemployment rate is expected to remain low, in turn supporting stronger wage increases alongside modest gains in labour productivity.

Hiring intentions have picked up in the external-oriented sectors …

In line with the expectation of a gradual recovery in the external-oriented sectors, overall hiring intentions have ticked up in H2 2013. The net employment outlook in ManpowerGroup's Q4 2013 survey, for instance, rose on the back of more positive hiring sentiment in financial services and manufacturing. (Chart 3.23) Financial institutions have indicated stronger demand for workers in front office sales as well as back office risk and compliance roles, in tandem with the steady stream of IPOs, while semiconductor manufacturers in particular are planning to raise headcount in view of better prospects for the global IT industry. A strengthening of trade flows, including in the region, will also benefit the wholesale trade and transportation & storage sectors.

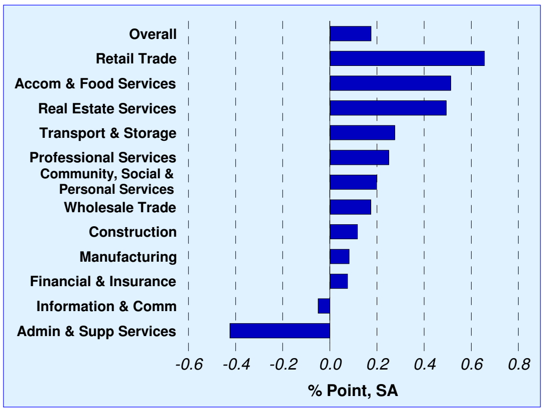
Chart 3.23
Net Employment Outlook

Source: ManpowerGroup

… while labour demand remains firm in other parts of the economy.

In the domestic-oriented sectors, hiring is likely to remain brisk on account of positive spillovers from the construction and property-related sectors. The large pipeline of housing, commercial and infrastructure projects will underpin construction employment growth and create more jobs in the upstream architectural & civil engineering services (professional services) as well as downstream real estate services segments. The completion of various shopping malls and office developments over the next few quarters will also require workers to fill positions in retail trade, food services and security & cleaning services (administrative & support services).

Chart 3.24
Change in Vacancy Rates by Sector
(H1 2013 over 2012)



Source: EPG, MAS estimates

Similarly, the progressive completion of the Downtown Line, beginning in December 2013, will add to labour demand, such as for train drivers and maintenance personnel, in the land transportation segment (transportation & storage). A further boost to employment will come from the opening of new Ministry of Education kindergartens in January 2014 and the addition of 50 childcare centres in Punggol and Sengkang over the next few years (community, social & personal services).

On the whole, hiring is expected to rise across a wider range of sectors over the next few quarters, in contrast to the recent period when jobs were mainly created in the domestic-oriented industries. (Chart 3.24)

The weakness in the PMET job market appears to be dissipating.

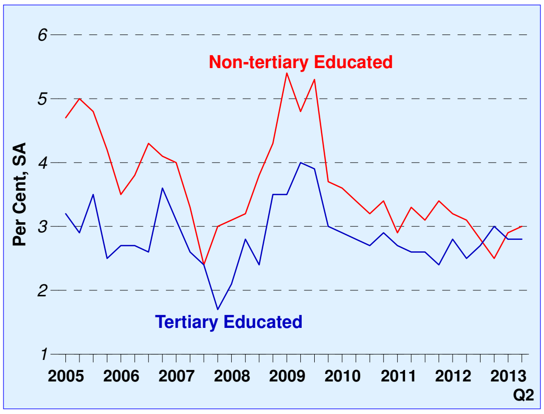
As discussed in Chapter 2, professionals, managers, executives and technicians (PMET) saw a soft patch in hiring over the last year amid the weakness in overall GDP growth. Indeed, the unemployment rate of tertiary educated residents—a proxy for unemployed PMETs—has trended up since 2012, even as that of non-tertiary educated residents has broadly fallen. (Chart 3.25)

While the relative rise in unemployment of tertiary educated residents was probably due to weak PMET job creation, the secular increase in their supply also likely made them more vulnerable to demand shocks. By Q2 2013, the number of tertiary educated resident workers had risen to equal that of non-tertiary educated resident workers for the first time. (Chart 3.26) The change in the profile of workers reflects the fact that older residents with lower educational attainment were increasingly being replaced by more qualified entrants to the resident workforce.[6]

Nevertheless, graduates of local tertiary institutions have been able to maintain relatively stable (and positive) wage differentials over their non-tertiary educated counterparts. (Chart 3.27)

Further, the demand for PMETs has also recently grown in tandem with the pickup in economic activity. Industries such as community, social & personal

Chart 3.25
Resident Unemployment Rate by Educational Attainment



Source: EPG, MAS estimates

Chart 3.26
Resident Labour Force by Educational Attainment

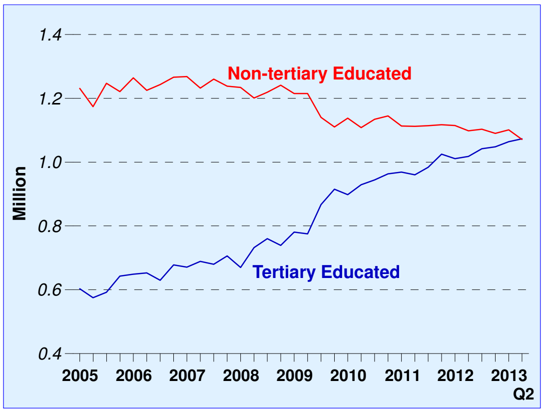
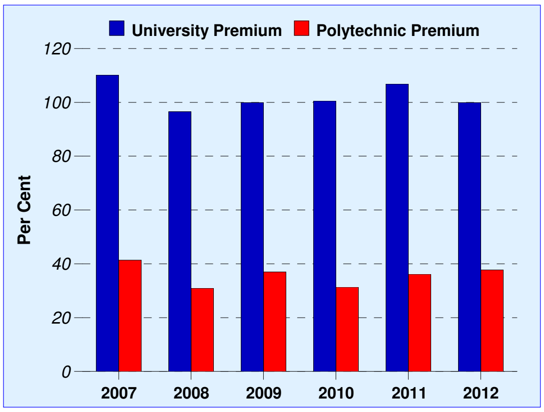


Chart 3.27
Higher Education Wage Differentials



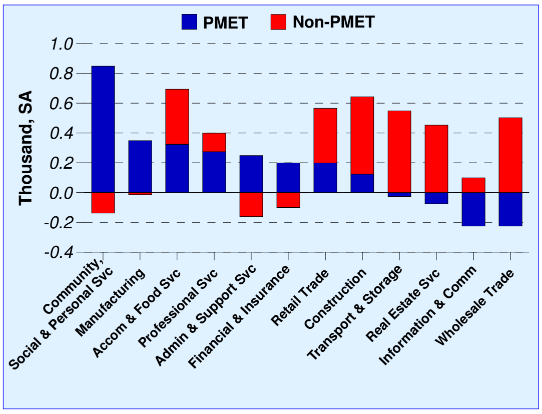
Source: Graduate Employment Survey 2012

Note: The estimates are calculated as the difference between the median monthly gross starting salaries of fresh university/polytechnic graduates and ITE graduates.

6 In 2012, three-quarters of the resident population aged 25–34 had tertiary qualifications compared to less than a fifth among the resident population aged 60 and above.

services, manufacturing and professional services have, for example, seen fairly strong increases in PMET vacancies. (Chart 3.28)

Chart 3.28
Change in Job Vacancies
(H1 2013 over 2012)



Source: EPG, MAS estimates

Greater constraints on S Pass and Employment Pass holders will provide opportunities for tertiary educated residents.

Importantly, recent manpower policies to tighten the inflow of S Pass and Employment Pass holders (EPH) will boost the hiring of tertiary educated residents, particularly at the entry level. In July 2013, the minimum qualifying salary for S Pass holders was raised to $2,200 from $2,000, while the S Pass sub-Dependency Ratio Ceiling (DRC) for the services sector was cut to 15% from 20%. Further, from January 2014, the minimum qualifying salary for entry-level EPHs will be increased from $3,000 to $3,300, while qualifying salaries for more experienced EP applicants will also be raised. Under the Fair Consideration Framework, which will be implemented in August 2014, employers will be required to place PMET job vacancies on a publicly available jobs bank for 14 days before application for EP permits are allowed.

The resident labour force participation rate is likely to rise at a slower pace.

In all, labour supply is likely to become more constrained on several fronts. Apart from tighter foreign labour policy across the skills spectrum and a slower increase in the resident population, the resident labour force participation rate (LFPR) is also expected to rise at a slower pace over the next few years.

First, according to MOM's Comprehensive Labour Force Survey 2012, the number of economically inactive residents who intend to rejoin the labour force in the next two years fell in 2011–12. (Chart 3.29) This portends a slower rate of increase in the resident labour force in 2013–14 following the sharp rise in recent years.

Chart 3.29
Potential Entrants into the Labour Force

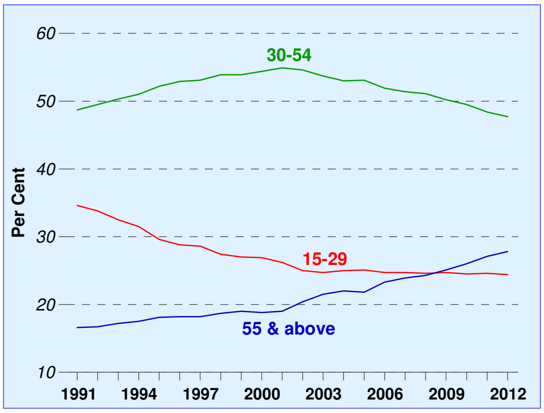
Note: Potential entrants refer to economically inactive residents who intend to look for a job within the next two years.

Second, recent increases in the participation rate could partially reflect the effects of temporary measures such as the Special Employment Credit (SEC) and Wage Credit Scheme (WCS). These subsidies for hiring Singaporeans have likely boosted the demand for locals. However, the SEC and WCS will cease in 2016 and 2015 respectively, with a dampening effect on the extent of future LFPR increases.

Third, the rapid ageing of the resident population will pose a significant drag on the overall LFPR in the near term. From around the middle of this decade, the share of the resident population aged 55 and above will rise at a considerably faster pace than before as the bulk of the baby boomers begin to move into this age group. (Chart 3.30) As noted in Chapter 2, the shift in the resident population to older age groups, where participation rates are markedly lower, has already exerted a negative drag on the resident LFPR since the mid-2000s.

Thus, while the LFPR is likely to rise further over the next few years due to secular forces, such as improved educational attainment and more flexible part-time work opportunities, the pace of increase is expected to slow due to demographics and policy-related changes. This will become an additional binding resource constraint on the pace of growth in the economy.

Chart 3.30
Share of Resident Population by Age Group

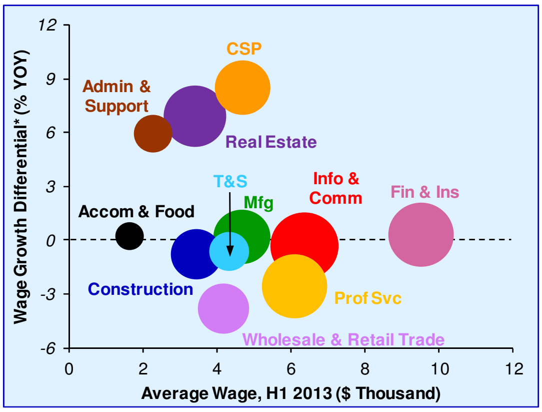


The labour market will tighten and wage growth will be strong.

The resident unemployment rate is therefore likely to remain below its natural rate amid continuing demand for manpower and more binding labour supply constraints. As a result, wage growth will be strong, including in the high-wage sectors, which have thus far seen wage growth at or below trend. (Chart 3.31) Overall wage growth is expected to stay above the historical average of 3.3% in 2013 and 2014. Coupled with the hikes in the foreign worker levy and a modest pickup in productivity, unit labour costs (ULC) will continue to rise in the near term, although government subsidies such as the Wage Credit Scheme will provide some offset.

In sum, more intense adjustments in the labour market are likely to occur in the next two to three years, owing to slowing labour force growth and relatively muted productivity increases. These will result in strong wage and cost pressures for domestic businesses. Moreover, changes in the composition of the resident labour supply mean that the labour-intensive domestic-oriented sectors will face a relatively greater labour crunch, with an attendant effect on wage increases.

Chart 3.31
Changes in Wage Growth and Wage Levels by Sector



Source : EPG, MAS estimates

Note: The size of the bubble represents the share of PMETs in the workforce.

* The wage growth differential is the difference between y-o-y wage growth in H1 2013 and the 2008–12 average.

3.4 Inflation

Domestic Cost Increases will Remain the Key Source of Inflation

Inflation will pick up over the next few quarters.

Underlying consumer price inflation is likely to rise alongside the gradual improvement in the economy. Although external price pressures should stay subdued, domestic business costs will continue to increase and pass through to consumer prices. CPI-All Items inflation will therefore come in higher in the next few quarters, and will be susceptible to swings arising mainly from developments in car prices.

External sources of inflation will be largely benign …

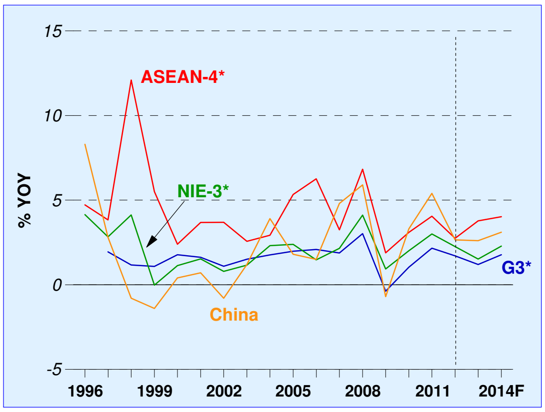
External price pressures are likely to stay subdued in 2014. (Chart 3.32) Notably, while the global economic outlook has improved, the slack in the labour market in the developed economies will cap price increases in the near term. Commodity prices are also generally projected to decline in 2014, on account of more favourable supply conditions. (Chart 3.33)

… as upward pressure on global oil prices dissipates.

Global oil price pressures have subsided recently and will likely remain contained, barring a fresh outbreak of geopolitical tensions in the Middle East North African (MENA) region. Demand and supply conditions in the oil market are expected to become more balanced as production recovers from the outages over the past year.[7] (Chart 3.34) Any unanticipated increase in global oil consumption should be accommodated by OPEC's surplus production capacity, which is projected to reach its highest level in three years in 2014.

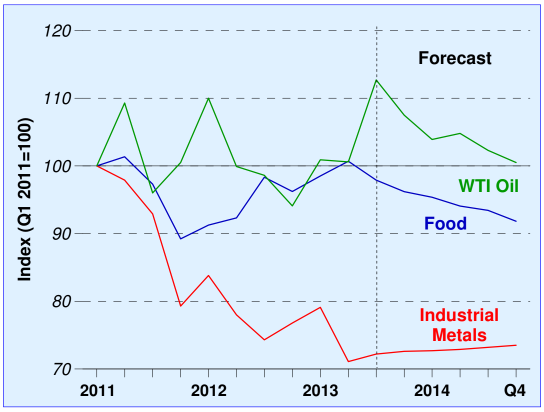
As a result, the Energy Information Administration (EIA) expects the West Texas Intermediate (WTI) benchmark oil price to fall gradually, averaging US$99 for this year and US$96 next year. Hence, while oil-related items will add to domestic inflation in the near term, they are expected to make little or no contribution to inflation for the whole of 2013 and 2014.

Chart 3.32
CPI Inflation in Singapore's Major Trading Partners



Source: Consensus Economics Inc.
* Weighted by average import shares for 2007–11.

Chart 3.33
Commodity Price Forecasts in US$



Source: EIA and IMF

[7] Recent disruptions to global oil supply include the oil theft in Nigeria, militia labour strikes in Libya and disputes between South Sudan and Sudan.

Domestic food inflation will be driven up by business costs, even as global food prices moderate.

The sharp rise in global food commodity prices in late 2012 will continue to filter through to domestic non-cooked and cooked food prices over the next few months. Thereafter, while prices of non-cooked food should rise more slowly given favourable projections of global crop harvests, cooked food prices will face upward pressure from higher domestic costs. In particular, cooked food vendors are likely to pass on increases in labour and rental costs to consumers, as these account for a significant share of their operating expenses compared to non-cooked food establishments. (Chart 3.35)

For the year as a whole, domestic food inflation is expected to rise from around 2% in 2013 to close to 3% in 2014, but will remain lower than the 3.4% average over the last five years.

Domestic cost pressures will continue to build and pass through more strongly into consumer prices.

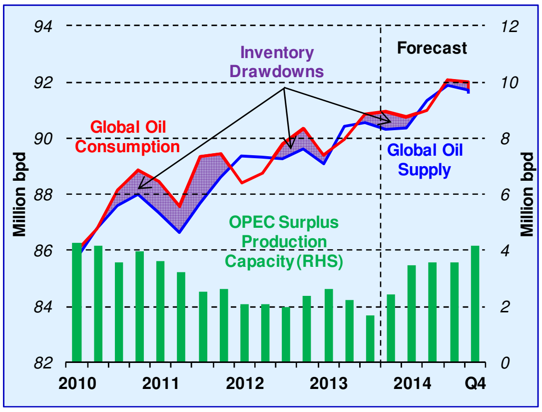
With sustained demand for manpower and tighter foreign worker policies, firms will increasingly turn to locals to fill job vacancies. In turn, this will place upward pressure on resident wages. At the same time, productivity should pick up only slightly, thus providing only a partial offset to higher labour costs.

In light of this and improving economic sentiment, businesses will likely pass on more of the accumulated cost increases to rebuild their profit margins. Services inflation is thus expected to rise from 2.4% in H1 2013 to around 3% in H2 2013 and the whole of 2014. This will be the first time in nearly two decades that services inflation stays above 2% for three consecutive years.

Pricing decisions are dependent on cyclical factors.

Consumer prices in Singapore are strongly influenced by cyclical factors. Indeed, EPG's empirical work shows that prices respond asymmetrically to a given change in ULC across different phases of the business cycle.[8] The ULC has a much larger impact on the CPI during periods

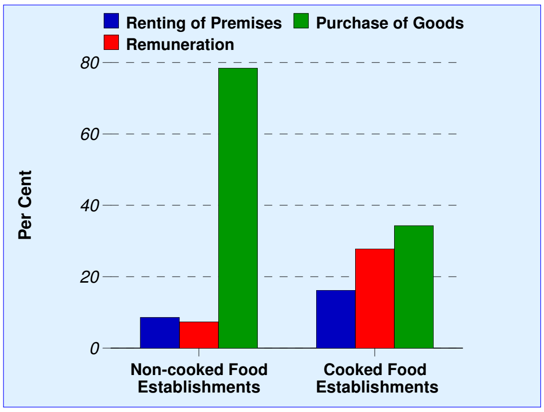
Chart 3.34
Global Oil Consumption, Global Oil Supply and OPEC Surplus Production Capacity



Source: EIA

Note: EIA defines OPEC surplus production capacity as the volume of production that can be brought on within 30 days and sustained for at least 90 days. It is typically used as an indicator of the world oil market's ability to respond to potential demand surprises and supply-side disruptions.

Chart 3.35
Remuneration, Rental and Raw Material Costs as a Proportion of Total Costs for Food & Beverage Establishments in 2011



Source: Department of Statistics Economic Surveys Series 2011

8 For the methodology used here, refer to Chew, J, Ouliaris, S and Tan, S M (2009), "An Empirical Analysis of Exchange Rate Pass-through in Singapore", *MAS Staff Paper* No. 50.

of strong cyclical uplift, due to a greater degree of cost pass-through. (Table 3.2) Conversely, retailers tend to pass on a smaller proportion of cost increases when the economy is weaker.

Micro-level CPI data also shows that prices are adjusted fairly frequently in Singapore in response to costs and cyclical activity. Looking at more than a hundred CPI categories, EPG found that about two-thirds of the core consumer items have an average price duration of two months or less, where the price duration of a product is defined as the uninterrupted period during which its price remains unchanged.[9] (Chart 3.36)

EPG's analysis reveals that even during the cyclical weakness in the economy from the start of last year to Q3 2013, the frequency of price adjustments had remained high. This reflects price cuts for oil-related and sentiment-sensitive items, as well as upward price adjustments for other goods, albeit of smaller magnitude than during periods of strong growth.

Car prices could face greater volatility and upside risks …

Car price movements will be the single largest factor behind the month-to-month fluctuations in overall inflation in the near term as the market adjusts to the pending re-categorisation of COEs. Following the announcement of refinements to the COE framework in early September, car COE premiums have climbed by 7% and could rise further before the new changes take effect, as affected car buyers frontload their purchases. However, any increase in premiums is unlikely to be sustained at the current pace, especially as the supply of COEs is projected to rise, driven by higher de-registrations as more cars reach the end of their 10-year COE period. (Chart 3.37)

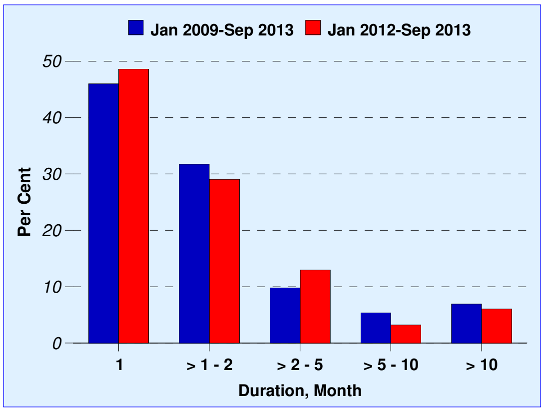
Car prices could contribute as much as 0.5–1% point to overall inflation for the whole of 2013 and 2014, down from an average of 1.3% points over the past three years.

Table 3.2
ULC Pass-through Coefficients to CPI

State of the Economy at t–1	Impact on CPI at Period t from 1% Increase in ULC at t–1 (%)
Output gap > +1%	0.14
Output gap < +1%	0.05

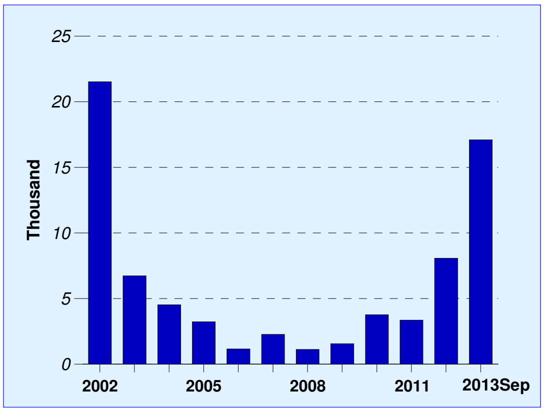
Source: EPG, MAS estimates

Chart 3.36
Distribution of Price Duration in Core CPI, 2009–13



Source: EPG, MAS estimates

Chart 3.37
Number of Cars Aged Between 9 and 10 Years as at End of Period



[9] Similar studies on the characteristics of price adjustments in the US and Euro area include: i) Dhyne, E, Álvarez, L J, Le Bihan, H, Veronese, G, Dias, D, Hoffmann, J, Jonker, N, Lünnemann, P, Rumler, F and Vilmunen, J (2006), "Price Changes in the Euro Area and the United States: Some Facts from Individual Consumer Price Data", *Journal of Economic Perspectives*, Vol. 20(2), pp. 171–192; and ii) Klenow, P J and Kryvtsov, O (2008), "State-Dependent or Time-Dependent Pricing: Does It Matter for Recent US Inflation?", *The Quarterly Journal of Economics*, Vol. 123(3), pp. 863–904. The relatively short price duration for Singapore could be due to the more aggregated price data used compared to other studies.

… while the growth in imputed rentals will likely continue to moderate gradually.

Residential property rental increases are likely to slow further, particularly for the private segment, as foreign labour inflows ease and a large number of new housing completions come on-stream. However, rental demand for the more affordable HDB flats should stay resilient, supporting a moderate rise in HDB rentals. On balance, imputed rentals are expected to increase more gradually going forward, and add around 0.5% point to overall inflation in 2014, compared to an average of 1.3% points over the past three years.

Core and overall inflation will rise in the next few quarters before tapering towards the end of 2014.

Sequential core price increases are expected to pick up to slightly above their historical average over the next few months, as domestic cost pressures manifest more prominently. (Chart 3.38) Coupled with the low base in the past year, core inflation will rise on a year-ago basis to reach around 2.5% in Q2 and Q3 2014. (Chart 3.39) Towards the end of next year, it should ease as base effects become more favourable.

Overall CPI inflation, however, will be volatile due to possible fluctuations in car prices. On a sequential basis, it is projected to remain elevated until Q1 2014, before decelerating rapidly thereafter. On a y-o-y basis, it is expected to reach around 3.5% in Q2 2014 on account of the exceptionally low base a year ago, when COE premiums corrected significantly. It could then ease to below 2% in Q4.

For the year as a whole, MAS Core Inflation is anticipated to rise from 1.5–2% in 2013 to 2–3% in 2014, while CPI-All Items inflation is projected to be 2.5–3% in 2013 and 2–3% in 2014. Imputed rentals on owner-occupied accommodation and cars will together account for around half and a third of CPI-All items inflation in 2013 and 2014 respectively. (Chart 3.40) Services fees will contribute around one-third to overall inflation in both years, and commodity-related items will make up less than a quarter.

Chart 3.38
Sequential Q-O-Q Inflation Forecasts

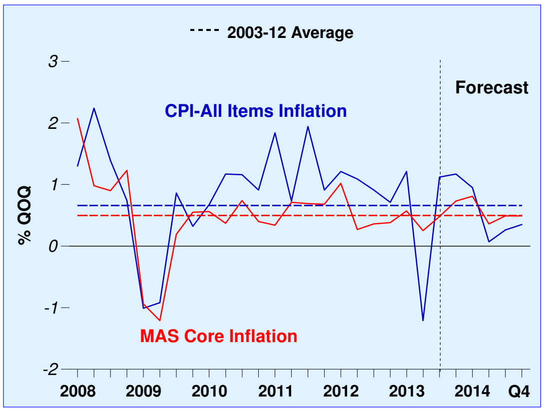


Chart 3.39
Y-O-Y Inflation Forecasts

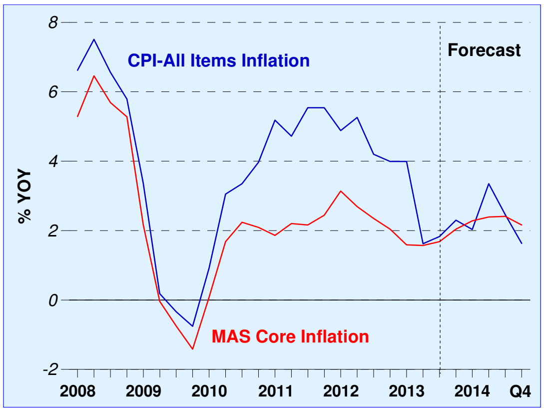


Chart 3.40
Contribution to CPI-All Items Inflation