

2.1 Labour Market Conditions

Strong Hiring of Locals as Foreign Workforce Growth Slowed

The labour market remained tight in the second half of last year, as demand for workers stayed strong amid firm domestic economic activity. Employment growth picked up, led mainly by robust hiring of residents in the domestic-oriented sectors. The foreign workforce continued to expand, but at a more moderate pace as further tightening measures came into effect. As a result of the strong demand for local workers, the resident unemployment rate fell and resident nominal wages rose significantly across most sectors. Overall labour productivity growth improved in line with the cyclical uptick in the economy.

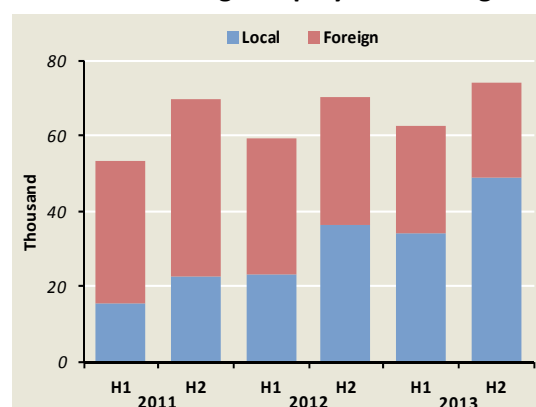
Strong employment growth in H2 2013 was driven by robust hiring of residents.

Total employment expanded by 73,700 in H2 2013 compared to an increase of 70,200 in the same period in 2012. (Chart 2.1) Of this, two-thirds were accounted for by resident workers, substantially higher than the 51% share in H2 2012. In contrast, foreign workforce growth fell to its lowest since H2 2009.

The recent increase in the resident share of employment gains was due to a confluence of factors. First, more binding constraints in hiring foreign labour, following consecutive rounds of tightening measures since 2010, prompted employers to turn to locals to fill job vacancies. In the most recent adjustment in July 2013, the Dependency Ratio Ceiling (DRC) and S Pass sub-DRC for the services sector were cut by 5% points, while the minimum qualifying monthly salary for S Pass holders was raised from \$2,000 to \$2,200 across all sectors. Second, temporary subsidies, such as the Special Employment Credit (SEC) and Wage Credit Scheme (WCS), together with higher foreign worker levies, lowered the relative cost of resident labour and encouraged firms to hire locals. Third, the growing prevalence of part-time jobs and flexible work arrangements facilitated the re-employment of older resident workers and women.

As a result of these developments, the resident labour force participation rate rose to an all-time high of 66.7% in 2013, while the resident unemployment rate edged down.

Chart 2.1
Local and Foreign Employment Changes



For 2013 as a whole, overall employment rose by 4.1% or 136,200, with the resident workforce expanding by 82,900. Given GDP growth of 4.1%, the increase in total employment was slightly stronger than what their simple historical relationship would imply.¹ (Chart 2.2) In earlier years—with the exception of 2008 and 2012—employment growth was typically less than 2% for GDP growth rates of below 5%.² The relatively strong job gains over the last two years may have been a result of employers' increasing reliance on part-time workers in a tight labour market to meet operational needs. In addition, firms may have frontloaded some hiring on expectations that it would be more difficult to fill job vacancies in the future.

Hiring was underpinned by the domestic-oriented sectors ...

The strong increase in employment in the second half of 2013 was mainly driven by sustained demand for workers in the domestic-oriented sectors, as infrastructure development and expansions in social services continued apace. (Chart 2.3)

The construction sector accounted for a quarter of all employment gains in H2 2013, as a result of various projects such as the Sports Hub and the South Beach complex. Job growth also accelerated in the domestic-oriented services sectors. (Chart 2.4) In particular, the headcount increase in community, social & personal services (CSP) was led by initiatives to build long-term capacity in social infrastructure, such as the opening of new childcare centres and pre-school facilities, as well as the expansion in healthcare and tertiary education institutes. Meanwhile, hiring in the retail trade and administrative & support services sectors was supported by the opening of new shopping malls, which boosted the demand for salespersons and cleaners.

... along with some pickup in labour demand in the external-oriented sectors.

At the same time, job creation in the external-facing sectors picked up slightly. Within the manufacturing sector, employment in the chemicals cluster rose at a faster pace in H2 2013, likely due to the expansion of

Chart 2.2
Real GDP and Employment Growth, 1986–2013

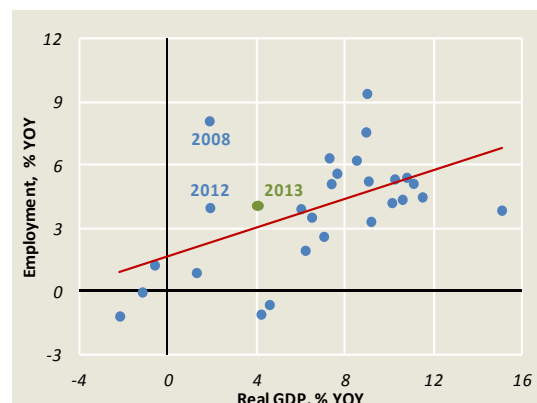
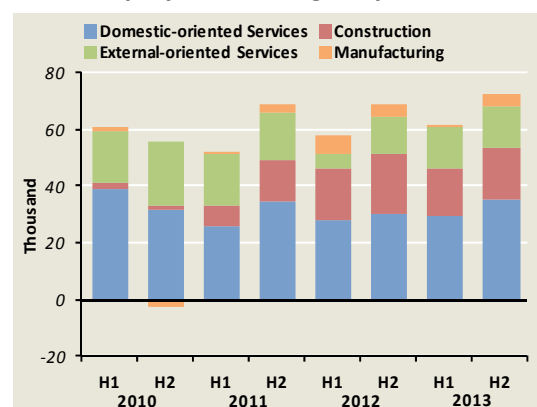
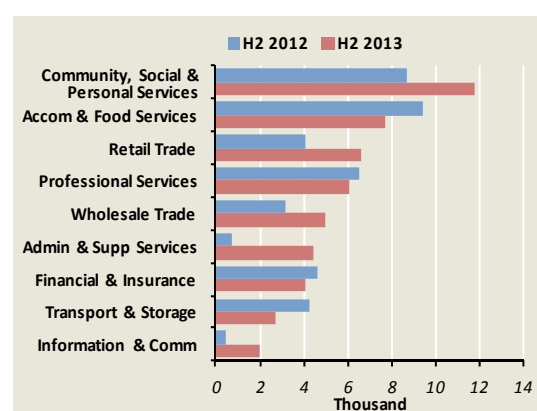


Chart 2.3
Employment Changes by Sector



Source: EPG, MAS estimates

Chart 2.4
Employment Changes in the Services Sector



¹ EPG's econometric work also suggests that this is the case.

² The bankruptcy of Lehman Brothers in September 2008 led to a sharp contraction in GDP growth in H2 2008. However, as the labour market tends to adjust with a lag, job creation continued over the same period, albeit at a moderated pace, with job losses occurring only in Q1 2009.

LNG processing facilities, while the electronics industry experienced smaller job losses.

The wholesale trade sector recorded larger employment gains in H2 2013 compared to the same period a year ago, on account of the stronger performance in re-exports. (Chart 2.4) However, job creation slowed slightly in the financial & insurance services sector, amid ongoing restructuring towards higher-end activities that are less labour-intensive.

As a result, the labour market remained tight ...

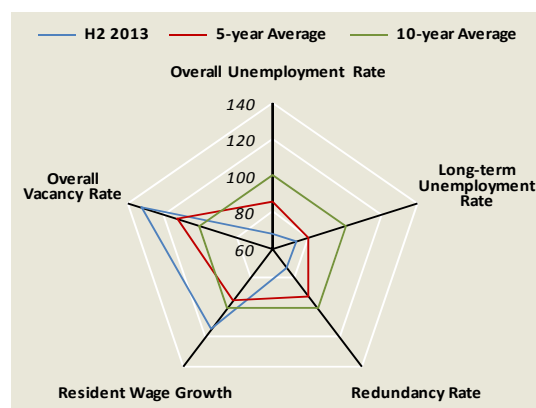
Given robust labour demand, the seasonally adjusted overall and resident unemployment rates fell to five-year lows of 1.8% and 2.7% respectively in H2 2013. Chart 2.5 presents five labour market measures, and compares their values in H2 2013 with their respective 5-year and 10-year historical averages. These indicators point to the continued tightness in the labour market. In particular, the overall vacancy rate in H2 2013 was substantially higher than its historical averages, a reflection of the difficulties that firms face in filling positions. Concomitantly, other measures of labour market conditions, including the overall unemployment, long-term unemployment and redundancy rates, were below their respective historical averages, even with the resident labour force participation rate at a record high.

... pushing up resident wage growth.

The tightness in the labour market manifested itself in strong resident wage growth during the second half of last year. Nominal wage growth in H2 2013 came in at 4.0%, compared to its five-year average of 3.3%. Moreover, wage pressures became more broad-based in Q4 2013, with a net weighted 27% of all sectors experiencing wage growth that was higher than their historical averages. (Chart 2.6) This was a step-up from 3.6% in the first three quarters of the year.

For the whole of 2013, nominal wages rose by 4.3%, accelerating from 2.3% in 2012. The number of hours worked by residents, however, fell by 0.7% last year. Taking this into account, the hourly wage growth would be 5.0% in 2013. The decline in the hours worked was likely due to the rise in the share of part-time workers in the resident labour force, from 9.6% in 2012 to a record high of 10% in 2013.

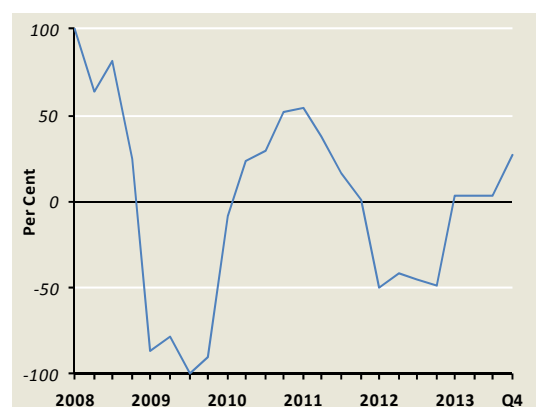
Chart 2.5
Labour Market Indicators



Source: EPG, MAS estimates

Note: Each variable is indexed so that its 10-year historical average takes a value of 100.

Chart 2.6
Wage Diffusion Index



Source: EPG, MAS estimates

Note: The index is weighted by the employment share for each sector. A diffusion index value of +100 indicates that wage growth in all sectors exceed their 5-year historical average, while a value of -100 indicates the reverse.

Labour productivity growth improved in H2 2013 due to cyclical factors.

Overall labour productivity rose by 1.5% y-o-y in H2 2013, reversing a contraction of 1.6% in H1. (Chart 2.7) The manufacturing sector led the recovery, with output per worker rising by 5.2% y-o-y in H2 following a decline of 4.5% in H1. Services productivity gains also picked up from 0.8% to 2.1% over the same period. In comparison, construction productivity dipped further, falling by 2.8% in H2.

Over a longer horizon, services productivity levels have remained generally subdued. As shown in Chart 2.8, after accounting for cyclical factors, there has been no discernible pickup in the services productivity trend line over the past few years. The continued weakness in underlying services productivity may be explained by the faster growth of the domestic-oriented services segments, including administrative & support services and health & social services, compared to the external-oriented sectors, such as wholesale trade. As the domestic-oriented services sectors tend to be more labour-intensive, overall services output per worker has been constrained.

In contrast, the manufacturing sector has seen a cumulative 30% increase in trend productivity levels since Q1 2008, likely reflecting the shift towards higher value-added activities.

Labour cost has been increasing on a sustained basis.

Amid the cyclical uptick in productivity growth, overall Unit Labour Cost (ULC) rose at a more moderate pace of 1.1% y-o-y in H2 2013, compared with 5.1% in H1. Meanwhile, government measures, such as the Wage Credit Scheme (WCS), also mitigated some of the increases in labour cost. Excluding the WCS, EPG estimates that ULC growth would be about 0.7% point higher in 2013. Nevertheless, the overall (particularly services) ULC continued to increase, reflecting the sustained build-up of labour cost pressures. (Chart 2.9)

Chart 2.7
Labour Productivity Growth by Sector

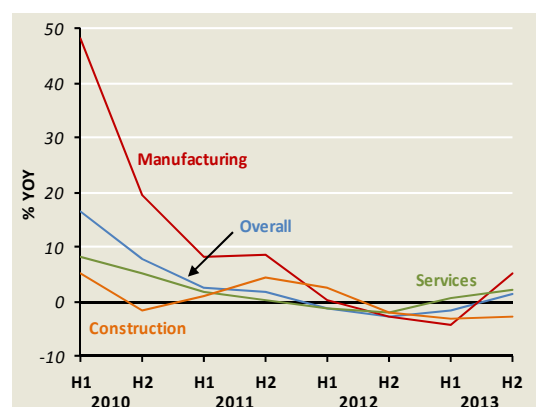
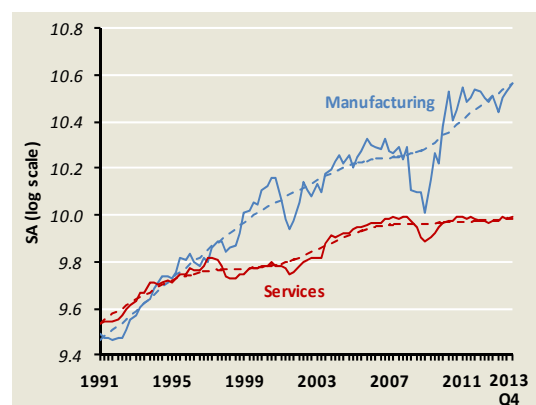


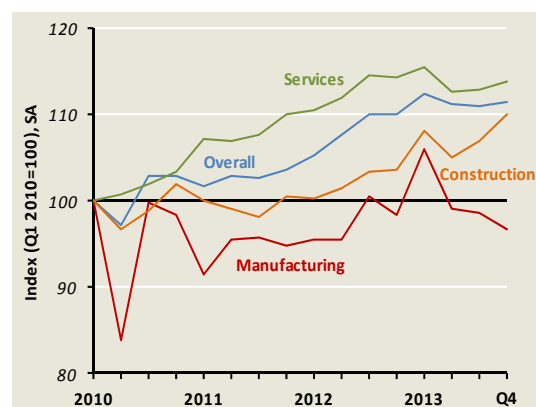
Chart 2.8
Labour Productivity Levels and Trends for Manufacturing and Services



Source: EPG, MAS estimates

Note: Trends, denoted by the lines in dashes, are obtained using a Hodrick-Prescott filter.

Chart 2.9
Unit Labour Cost by Sector



Source: EPG, MAS estimates

2.2 Consumer Price Developments

Core Inflation Picked Up amid Sustained Domestic Cost Pressures

Underlying price pressures have firmed ...

Core inflation rose in recent quarters, as a result of a stronger pass-through of accumulated business cost increases, particularly wages, and a slight pickup in imported inflation. On a y-o-y basis, MAS Core Inflation came in at 2.0% in Q4 2013 and Q1 2014, up from 1.6% in the first three quarters of 2013. (Chart 2.10) CPI-All Items inflation, however, was lower at 2.0% and 1.0% in Q4 2013 and Q1 2014 respectively, compared to the 2.5% average during Jan–Sep 2013. This moderation reflected the decline in car prices when compared to a year ago, as well as softer housing rentals. (Chart 2.11)

On a sequential basis, MAS Core Inflation has remained above its 10-year historical average since Q4 2013. (Chart 2.12) Meanwhile, CPI-All Items inflation eased to 0.2% q-o-q in Q1 from an average of 1.0% in H2 2013, owing to the weakness in car prices and housing rentals.

... reflecting a broader base of price increases.

The recent pickup in MAS Core Inflation was driven by a broader base of price increases. Chart 2.13 shows the aggregate dispersion of the inflation rates of the various core CPI categories. This is measured as the average of the absolute differences of each category's inflation rates from MAS Core Inflation, weighted by their respective CPI weights. This dispersion has fallen in recent quarters, suggesting that a larger number of categories in the core CPI have similar inflation rates, thereby indicating that price movements in the economy are more broad-based.

At the same time, the proportion of the core CPI basket with price increases that are stronger than their historical averages has risen over the past three quarters, following the build-up of underlying cost pressures in the economy. (Chart 2.14)

Chart 2.10
CPI-All Items and MAS Core Inflation

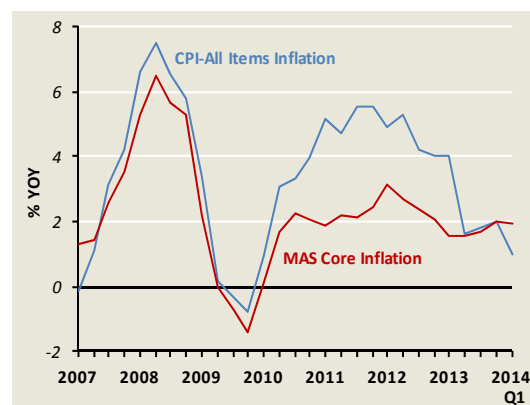


Chart 2.11
Contribution to CPI-All Items Inflation

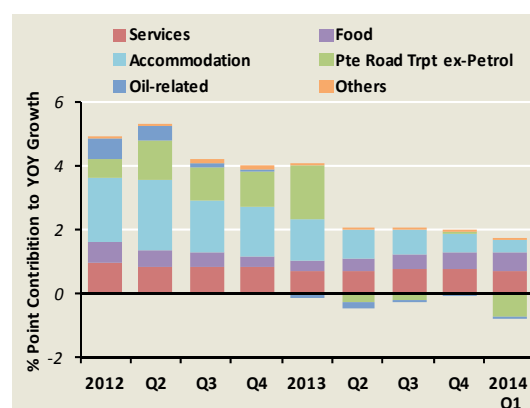
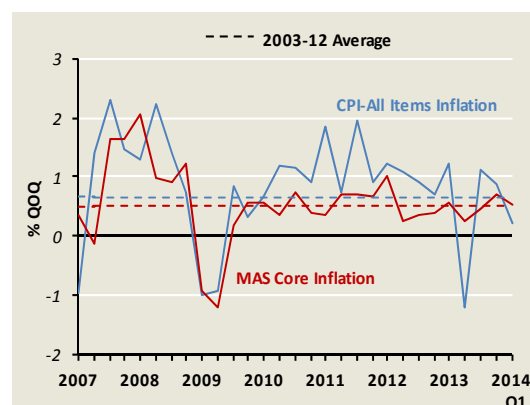


Chart 2.12
Sequential CPI-All Items and MAS Core Inflation



Global commodity prices have been generally stable in recent months.

Since the last policy review, global commodity prices in US\$ terms have remained broadly unchanged. (Chart 2.15) In the oil market, production outages, amounting to 3.4% of global demand in Q1 2014, remained elevated due to geopolitical developments in the Middle East and North Africa. Nonetheless, new supply from non-OPEC sources has capped global oil prices. Notably, US crude oil supply surged to an average of 8.1 million barrels per day (bpd) in Q1 2014, or almost 10% of global consumption, from 7.1 million bpd a year earlier.

Meanwhile, prices of selected food commodities, including wheat, sugar and coffee, increased recently because of rising concerns over supply disruptions due to weather and geopolitical factors.³ However, global food commodity prices remained broadly contained, given expectations that output for most of the major crops would surpass demand, resulting in a continued build-up in inventories.

Finally, prices of industrial materials remained depressed, owing to more subdued growth prospects in the emerging markets.

Imported inflation picked up slightly due to higher consumer prices in Malaysia and Indonesia, and fluctuations in the exchange rate.

Price pressures in Singapore's major trading partners were generally muted given subdued global economic growth. However, Malaysia and Indonesia saw higher inflation due to the rationalisation of government subsidies.⁴ On balance, the stronger inflation from these two major import sources led to a rise in overall foreign wholesale prices. Coupled with the slower pace of appreciation of the S\$NEER (on a year ago basis), imported inflation in S\$ terms increased to average 0% y-o-y from October 2013 to February 2014, compared to the trough of -5.5% in Q1 2013.

Chart 2.13
Dispersion of Y-O-Y Price Changes for MAS Core Inflation Categories

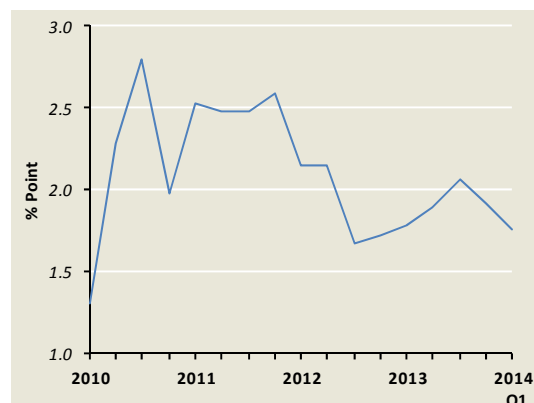


Chart 2.14
Share of Core CPI Basket with Higher Inflation Compared to 2003–12 Average

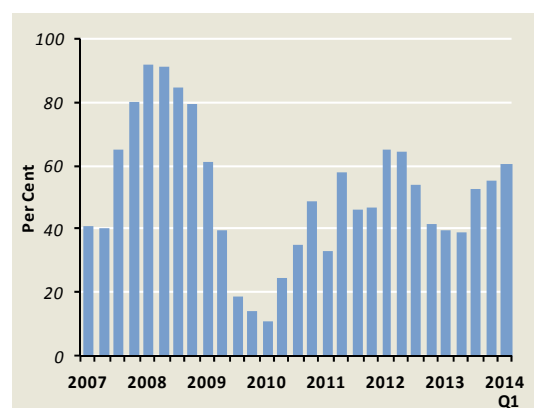
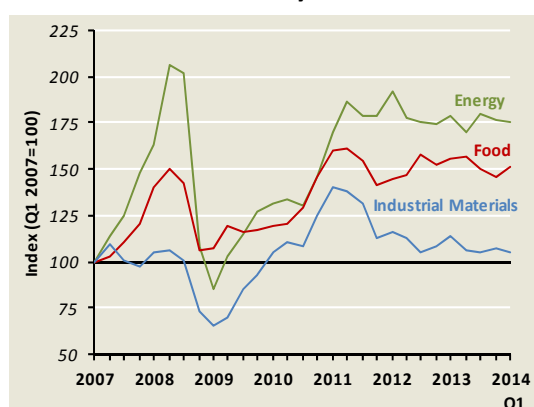


Chart 2.15
Global Commodity Prices in US\$



Source: IMF

³ Wheat prices climbed by 6.1% m-o-m in February as a result of the unusually severe winter in the US and the risks over Ukrainian supplies. Sugar and coffee prices increased by 6.7% and 20% respectively, due to the dry weather in Brazil. Vegetable oil prices rose by 4.9%, given the dry spells in Southeast Asia and South America.

⁴ The Indonesian government raised the domestic subsidised prices of motor gasoline and automotive diesel fuel in June 2013. The Malaysian government also implemented a series of subsidy cuts, which led to a 14% jump in sugar prices in October 2013, an 11% increase in petrol prices in September 2013 and an average hike of 15% in electricity rates in January 2014.

Nevertheless, as shown in Chart 2.16, the S\$NEER (the red bars) continued to have a restraining effect on import prices by filtering the impact of changes in external prices (the blue bars). Imported inflation would have been higher in recent quarters without the continued, albeit more moderate, appreciation of the S\$NEER. Indeed, EPG's empirical studies show that S\$NEER movements pass through to import prices relatively quickly.⁵

In tandem with the pickup in imported inflation, the drag from oil-related items on the CPI largely dissipated in the last two quarters as domestic petrol pump prices increased. Prices of retail food items, excluding prepared meals, also rose by 2.7% y-o-y in Q4 2013 – Q1 2014, following the 2.3% increase in Q2 – Q3 2013.

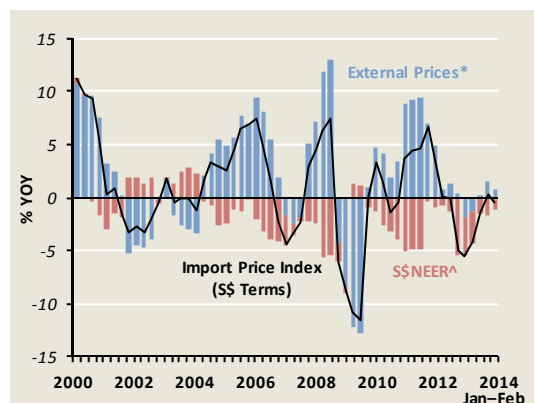
Domestic cost pressures continued to mount ...

Persistent wage pressures amid the tight labour market, together with only a modest increase in productivity, led to a continued rise in Unit Labour Cost (ULC). This, combined with various services fee increases, pushed up the Unit Services Cost Index (USCI)—EPG's internal gauge of cost conditions in the services industry—by another 1.6% y-o-y in H2 2013, following gains of 2.5% and 2.9% in H1 2013 and 2012 respectively.

... and passed through more strongly to consumer prices.

Reflecting improvements in the economic outlook, firms passed on more of their cost increases to consumers, as shown by the rise in the estimated cost mark-up in H2 2013. (Chart 2.17) Price adjustments were especially strong in some non-tradable services over the past six months compared to the corresponding period a year ago. In particular, essential services such as dental treatment and environmental services, and sentiment-sensitive items, including holiday travel and prepared meals, saw significant price increases. (Chart 2.18)

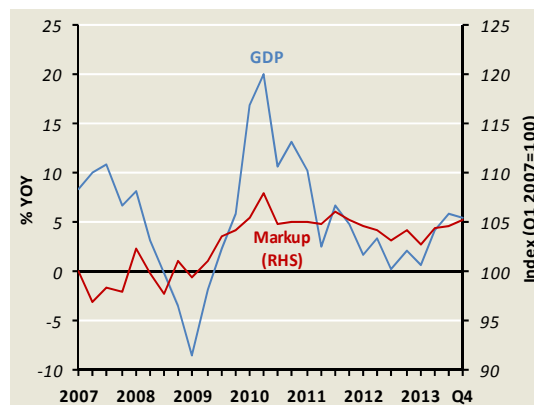
Chart 2.16
Import Prices, S\$NEER and External Prices



* External prices are proxied by adding the change in the S\$NEER to imported inflation.

^ Movements in the S\$NEER are presented on an inverse scale to show the offsetting effect of exchange rate appreciation on imported inflation.

Chart 2.17
GDP Growth and Firms' Mark-up Coefficient Index*



Note: The firms' mark-up coefficient is proxied by MAS Core Inflation divided by a weighted index of Unit Labour Cost and import prices. The weights were derived from a breakdown of the cost of sectors that cater to final private consumption in the 2007 Input-Output tables.

* EPG, MAS estimates.

⁵ The effect of a change in the exchange rate is fully passed on to domestic import prices within a year. Following a 1% appreciation in the exchange rate, domestic import prices fall by just over a third of a percent in the initial quarter, and by a cumulative 0.6% by the third quarter. Full pass-through is achieved by the fourth quarter. For details, 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.

On a year-ago basis, overall services inflation was firm at 2.5% in Q1 2014, similar to that in 2013, even with the high base in Q1 last year. Household services fees increased sharply in 2013, mainly from the change in policy that made it mandatory for employers to give foreign domestic workers a weekly rest day or compensation in lieu, while medical insurance was costlier on account of enhanced coverage under the MediShield scheme.

Meanwhile, car prices fell ...

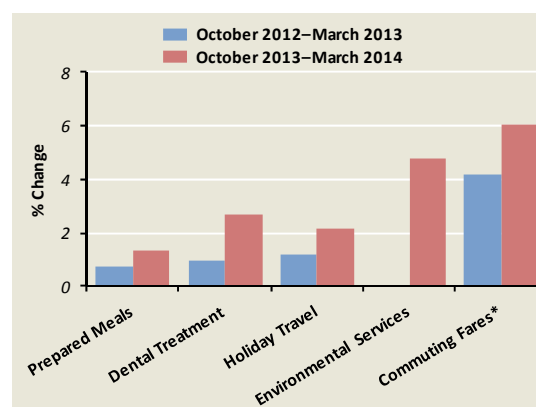
COE premiums for cars corrected in late 2013 but have been volatile in the early part of 2014. Coupled with the high base a year ago, premiums were 16.2% lower in Dec 2013–Feb 2014 on a y-o-y basis.⁶ (Chart 2.19) As such, private road transport cost fell by 4.5% y-o-y in Q1 2014, reversing the 0.6% increase in the previous quarter.

... and imputed rental inflation continued to slow.

Rentals for new leasing contracts fell slightly in both the HDB and private residential property segments over the past six months, following the sustained run-up since the middle of 2009. This reflected the impact of the significant number of new residential units that came on-stream over the past year. In particular, rental demand in the HDB segment was alleviated by the completion of new HDB units as well as the introduction of the Parenthood Provisional Housing Scheme.⁷ In the private residential property market, the additional supply resulted in a rise in the vacancy rate to 6.6% in Q1 2014, the highest since 2006. (Chart 2.20)

In line with the fall in housing rentals, the contribution of imputed rentals on owner-occupied accommodation to overall inflation moderated sharply to 0.3% point y-o-y in Q1 2014, half of that in H2 2013.⁸

Chart 2.18
Price Changes of Selected CPI Items



* Commuting fares refer to bus services that ferry passengers to and from schools and offices. It is a separate category from public bus services.

Chart 2.19
Car COE Premiums

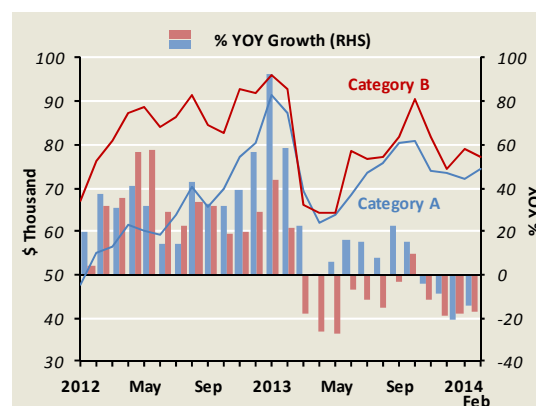
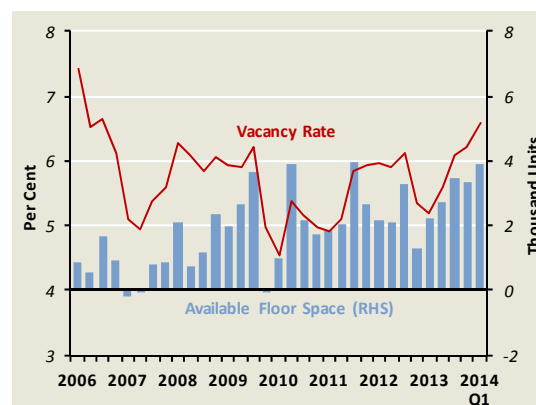


Chart 2.20
Vacancy Rate and Growth in Available Floor Space for Private Residential Properties



⁶ COE premiums in a particular month are reflected in the CPI for private road transport cost in the following month.

⁷ This scheme gives families the option of renting a flat from the HDB while waiting for their new flat. Since its launch in January 2013, almost 800 flats have been taken up.

⁸ While rentals of new contracts fell, imputed rentals continued to rise as the new rental values were still higher than those under the previous contracts.

A MAS-MTI joint study has provided some preliminary insights into the pricing behaviour of a select group of global retail firms.

Box B at the end of this chapter features a study jointly commissioned by MAS and MTI that examines the extent of price differentials across a few cities including Singapore, of three global retail brands, and the factors contributing to these differentials.

The study found that prices can differ substantially across locations for specific products. Singapore's prices are found to be relatively high in most instances, with prices here above the median for two-thirds of the items surveyed, and below the median for around a quarter of them. For the majority of the items which are more expensive in Singapore, the price premiums do not exceed 20%. The results also suggest that the price differentials mainly reflect differences in unit cost (cost adjusted by market size) and demand for their products in the respective markets.

This study has yielded some preliminary insights into the pricing behaviour of global retail firms. Given that the analysis focuses on only three global brands, the findings should not be taken as representative of differences in the overall cost of living across cities.

Box B

Prices of Three Global Brands across Locations: A Case Study Approach

Prices of identical consumer goods often differ across countries. This phenomenon is more apparent now as frequent travel and the advent of the internet have lowered the search cost for price comparisons across locations.

The MAS and MTI jointly commissioned Ipsos Business Consulting to conduct a study on the presence and extent of price differentials between Singapore and other major cities, as well as the factors contributing to these differentials. The study focused on three global retail brands—Apple, IKEA and Zara.

This box briefly reviews existing studies on firms' pricing behaviour before presenting some findings for Singapore from these case studies.

Firms' Pricing Behaviour

In recent decades, a large amount of research has focused on understanding firms' pricing behaviour. Although data on the *periodicity* and *magnitude* of price changes are available, they are inadequate for understanding the rationale behind firms' behaviour. Following the influential study on price setting in the US by Blinder *et al.* (1998), many surveys on firms' pricing behaviour have since been conducted. Such surveys provide information on the factors considered by firms when they review their product prices in domestic markets. The results of these surveys reveal that firms typically base their pricing decisions on internal cost or demand considerations.

Similar factors are found to influence firms' price-setting behaviour for products distributed in multiple markets. For instance, Baxter and Landry (2010) found that price adjustments of IKEA products in six countries over sixteen years largely tracked cost changes. Firms also take into account differing demand conditions, including competitive pressures and consumer preferences, and vary prices accordingly across markets. This practice is known as "pricing-to-market" where firms adjust their mark-ups based on the price elasticity of demand in each market. They are able to do so due to cross-border transaction cost and market frictions that economic agents face in attempting to arbitrage. For example, Simonovska (2010) in his study of 245 products from the Spanish apparel brand, Mango, found that variable mark-ups accounted for as much as a third of the observed price differences across 29 European, Asian and North American markets.

Case Studies of Three Global Brands

The MAS-MTI study focuses on three global brands to shed some light on how prices in Singapore compare with those in other cities, and the main factors that influence pricing behaviour of these firms in the domestic market. Given that the analysis centres on only three global brands, the findings should not be taken as representative of differences in the overall cost of living across cities.

Methodology and Definitions

Benchmark Locations

The study compared Singapore to 10 other major cities, namely Paris (PAR), London (LON), Shanghai (SHA), New York (NYC), Taipei (TPE), Hong Kong (HKG), Kuala Lumpur (KUL), Bangkok (BKK), Sydney (SYD) and Tokyo (TYO).

Selection of Retailers and Products

Retail brands with a presence in all the benchmark locations were considered. Apple (consumer electronics), IKEA (furniture) and Zara (apparel) were chosen as case studies given the large number of identical products that could be compared across all the cities. For each of these brands, an identical basket of items was compared across the cities. To ensure that the baskets were representative of the brands' product range in Singapore, a sizeable number of items, totalling 647 products, were selected. (Table B1)

Table B1
Item Count across Product Categories

Apple	iPad	iPhone	iPod	Mac Desktop	Mac Portable	Total
	14	7	9	7	5	42
Zara	Accessories	Children's Wear	Men's Wear	Underclothes	Women's Wear	
	28	34	42	31	65	200
IKEA	Bedroom Furniture	Children's Furniture	General Furniture	Living Room Furniture	Textiles and Rugs	
	54	40	49	160	102	405

Data Sources

Data on prices were gathered primarily from company websites and other publicly available sources in Q2 2013. Prices were verified through phone calls and in-store visits for randomly selected items. To ensure comparability, prices excluding discounts were used. In the first part of the study, sales taxes were excluded from the prices given the focus on understanding the characteristics of firms' pricing behaviour. In a later section, sales taxes were incorporated to ensure that the inferences are robust from the perspective of consumers. All prices were converted to US dollars, using the average exchange rate in 2012. In total, more than 7,000 price observations were assembled.

Interviews

The quantitative price analysis was supplemented with desk research and interviews with industry players to examine the factors behind the price differentials for the three brands. Findings from existing case studies on these firms were also taken into account.^{1/} To gather further insights into the determinants of prices in Singapore, interviews were extended to include several representatives of other brands and retailers of consumer electronics.

Key Findings

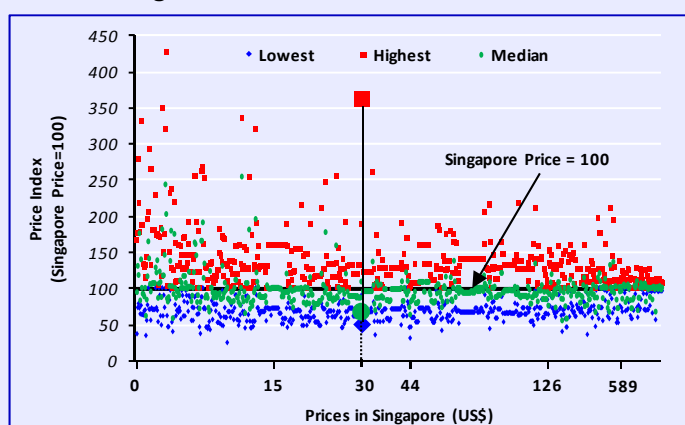
Prices for Individual Products can Vary Significantly across Locations

For each of the 647 items in the study, the highest, lowest and median prices across the 11 cities are identified. They are then benchmarked to Singapore's price, which takes on a value of 100. The results are plotted in Chart B1.

The highest price for each of the 647 items is shown in red, the lowest price in blue and the median price in green. For instance, a product priced at US\$30 in Singapore (index value of 100) is found to cost around three-and-a-half times more (index value of 363, as illustrated by the enlarged red square) in the most expensive location among the 11 cities. At the same time, the lowest price for the same item is around half of that in Singapore (index value of 50, as shown by the large blue diamond). The median price for the product, depicted by the large green dot, is around one-third cheaper than in Singapore (index value of 68). In general, the chart shows that prices can vary significantly across locations, particularly for the lower-priced items.

^{1/} Other case studies include Haskel and Wolf's (2001) examination of IKEA's pricing, Baxter and Landry's (2010) research on IKEA's decision-making regarding product and pricing across six countries, and Ghemawat and Nueno's (2006) case study of Zara's business model.

Chart B1
Lowest, Highest and Median Prices for Individual Items



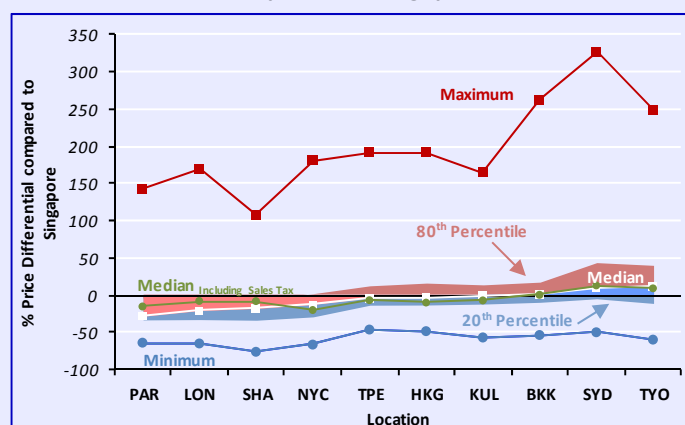
While Prices in Singapore are often not the Lowest, they are also not Consistently the Highest Compared to Other Cities

Most of the red data points in Chart B1 are above the horizontal axis (index value of 100), indicating that the highest prices are largely recorded in cities other than Singapore. Singapore is the most expensive location for only 39 of the 647 products surveyed. Meanwhile, the blue data points are mainly below the horizontal axis as they are lower than Singapore's prices. Only 21 items are found to be the cheapest in Singapore. Together, these results show that for most items, Singapore is neither the cheapest nor the most expensive among the major cities. In addition, Singapore registers the median price for 5% (or 34) of the products. Singapore's prices are above the median price for two-thirds of the items and below the median price for only a quarter of them.

Price Differentials between Singapore and Other Locations are Moderate for the Majority of Items Surveyed

From another perspective, Singapore's prices of all the 647 items can be compared bilaterally with those from the other 10 cities. For prices that are higher (lower) than those in Singapore, the differentials are positive (negative). Chart B2 plots the distribution of price differentials for each city.

Chart B2
Distribution of Price Differentials in Each City Compared to Singapore



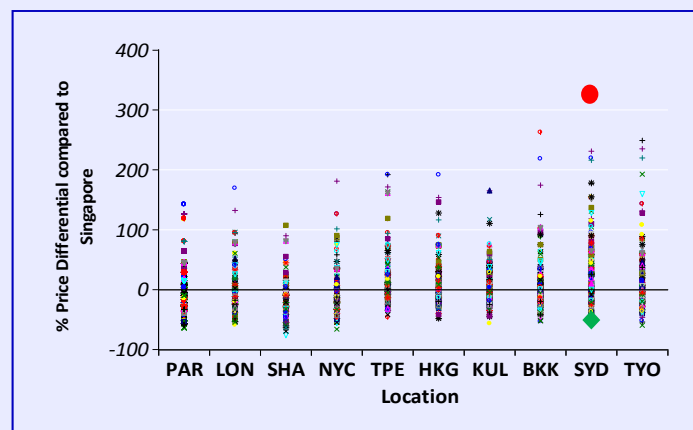
For instance, in the comparison between Singapore and Paris, the largest positive price differential comes from an item that costs nearly 150% more in Paris while the most negative price differential is for an item that is nearly 75% cheaper there. In comparison, the *median* price differential, as depicted by the white square, is smaller at -28%, with three-fifths of the items clustered close to it, as shown by the 20th and 80th percentile lines. This pattern of predominantly moderate price differentials is also evident vis-à-vis

other cities. In particular, compared to cities such as Taipei, Hong Kong, Kuala Lumpur and Bangkok, prices in Singapore differ relatively modestly across the three global brands, with the median price differential being close to zero and the 20th and 80th percentile lines tightly bound between -14% and +17%.

Even within the Same Brand, Prices in Singapore can be Higher than in Other Cities for Some Items but Lower for Others

Price differentials are found to vary across product categories within the same brand. To illustrate, Chart B3 plots the price differentials between Singapore and each of the 10 cities for all the surveyed IKEA products. The results show that IKEA products are not consistently cheaper or more expensive in Singapore compared to these cities. For instance, one product (shown by the large red dot) is found to cost around three times more in Sydney compared to Singapore, while another item (shown by the large green diamond) can be purchased there for half the price in Singapore.

Chart B3
IKEA Price Differentials Compared to Singapore



Sales Taxes Influence Consumers' Price Experiences across Cities

The price data presented thus far do not include sales taxes in order to show how prices set by the three brands differ across markets. Sales taxes do, however, directly feature in the final retail prices that consumers face.^{2/} Incorporating sales taxes into prices in the 11 cities does not, however, alter the earlier conclusions about price differences across cities. Singapore's prices are still relatively high for a large proportion of the items, with around two-thirds above the median and a quarter below the median. However, as shown by the green line in Chart B2, the price differentials are now smaller between Singapore and the "cheaper" cities, such as Paris, London and Shanghai, where sales taxes are significantly higher. On the whole, including sales taxes, price differentials between Singapore and the 10 cities are fairly moderate, ranging from -21% to +15% based on the 20th and 80th percentiles of the distribution of the entire sample. The extent of Singapore's price deviations are similar to bilateral comparisons between other cities in the sample.^{3/}

Factors behind Consumer Price Differentials

Cost and Demand Factors are the Key Drivers of Price Differentials across Cities

Qualitative insights from interviews conducted for this study suggest that cost conditions and demand factors faced by global retailers influence product prices to a large degree, and account for most of the price differences between cities for the same product.

^{2/} Import duties could also explain some of the price differentials across the cities but it is difficult to account for them as they vary widely across product categories and their impact on the final retail price is not directly observable.

^{3/} For instance, the price differentials between Hong Kong and the other 10 cities range from -14% to +25% based on the 20th and 80th percentiles of the distribution of the entire sample.

A Operating Cost

Operating cost is found to be one of the major determinants of prices. However, rather than the absolute level of factor cost, it seems that firms' pricing decisions are more influenced by unit cost, adjusted for market size or turnover. Larger markets allow retailers to spread distribution overheads (fixed cost) over a larger sales volume. Based on the interviews conducted for the study, Singapore's small market size appears to explain, to a large extent, the relatively higher prices for some goods here compared to similarly high-cost cities, such as Hong Kong and New York.^{4/}

In addition, global retail brands largely build transport cost into product prices. Hence, product prices tend to be lower in cities that are close to the source country. For instance, Paris and London are typically cheaper than other cities for the two European brands covered in this study. Interviews with brand representatives and retailers in the consumer electronics segment also suggest that prices are lower in Thailand and China as they are the regional assembly hubs for some of the key electronics brands.

B Demand Factors

Consumer preferences and the intensity of competition are also found to have a strong influence on prices. This suggests that some degree of pricing-to-market does take place, in line with the studies reviewed earlier. For instance, prices of Zara products vary substantially across locations, depending on differences in consumer preferences for fast-fashion products. Further, global retailers can be sensitive to competitive pressures in individual product segments, causing price differentials across cities to differ significantly even for products of the same brand.

Sum-up

This project, using a limited survey-based case study approach, has yielded some preliminary insights into the pricing behaviour of a select group of global retail firms.

The results suggest that price differentials across locations can be very large for individual products. Indeed, price differentials vary even among products within the same brand. Including sales taxes, the prices that consumers face in Singapore are higher than the sample median for two-thirds of the goods surveyed in this study. However, Singapore is not the highest-priced location in most instances. For the majority of the items that are more expensive in Singapore, the price premiums do not generally exceed 20%.

The case studies suggest that the selected firms' pricing decisions are influenced by unit cost (cost adjusted by market size) and demand for their products in the respective markets. The latter is possibly a more significant influence on price-setting for these global companies with strong branding. In comparison, other factors, such as domestic operating cost, may be relatively more important for pricing decisions of local companies.

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^{4/} For instance, the value of retail sales in Singapore was US\$29.2 billion in 2013 compared to US\$49.4 billion for Hong Kong.