Penang Economic and Development Report 2015/2016

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Prepared for the State Government of Penang

This document has been prepared with input from a range of community, organisations and agencies.

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FOREWORD

MESSAGE FROM THE RIGHT HONOURABLE CHIEF MINISTER OF PENANG

Salam Sejahtera,

Penang's economy remains resilient in 2015 despite the economic downturn, the weakening of the Ringgit and the depreciation of crude oil. The Gross Domestic Product (GDP) of Penang in 2015 grew at a rate of 5.5% outpacing the national growth rate of 5.0%.

This is driven by the rapid increase and progress in the tourism and industry sectors which are Penang's largest contributors of GDP. This further helped Penang to achieve an unemployment rate of 1.6% in 2015 which was the lowest rate ever recorded in the history of Penang.

In pursuit of international recognition of a livable city that is clean, green, safe and healthy and becoming a developed state by the year 2020, the State Government had been assiduously carrying out planning and implementation of an entrepreneurial and welfare state. Penang is the 6th largest contributor to the national economy, making up 25% of Malaysia's total imports and exports as well as attracting the highest foreign investment in the country.

The services sector outperformed the other sectors in Penang with RM34,300 million to Penang's GDP in 2015 compared to the previous year's RM32,769 million. The manufacturing sector stood as the second contributor for the Penang economy which recorded an increase in 2015, contributing RM31,236 million to Penang's GDP compared with RM29,232 million in 2014.

Despite the challenging global economic environment, Penang has recorded strong investment over last 8 years. For the 8 years period between 2008-2015, Penang recorded an investment of RM 55 billion, a 90% increase compared to the previous 8 years period 2000 to 2007 of RM29 billion. Both the manufacturing and services sector are the engines of growth of Penang's economy, contributing 46.3% and 48.1% respectively to the state GDP in 2015.

The good governance and clean leadership under the CAT administration of competency, accountability and transparency has witnessed annual budget surpluses every year, high cash reserves and the lowest state government debt in Malaysia of RM69 million out of a total state government debts in Malaysia of RM16.8 billion. Accumulated budget surpluses amounted to RM574 million from 2008-2015 which is higher than the RM373 million accumulated over 50 years from 1957-2007.

I would like to take this opportunity to express my gratitude to all government departments and agencies especially the State Economic Planning Division (BPEN) and Penang Institute that have contributed and collaborated in publishing this book. I hope this report will benefit society and all sectors involved whether directly and indirectly and help to develop Penang into an international and intelligent city will be successful.

Thank you.

RIGHT HON. LIM GUAN ENG
Chief Minister of Penang

FOREWORD

MESSAGE FROM THE HONOURABLE DEPUTY CHIEF MINISTER II OF PENANG

Salam Sejahtera,

I am grateful for the successful publication of the Penang Economic and Development Report 2015/2016. The report is a collaboration between the State Economic Planning Division (BPEN) and the Penang Institute.

The Penang State economy recorded a convincing and consistent performance in 2016. In 2015, the GDP attained a growth rate of 5.5% compared to 5.0% at the national level. The total value added to the state for 2015 was at RM69,844 million at a constant price of 2010. The service and manufacturing sectors remain the core economic drivers of Penang with a total value of RM34.3 billion and RM31.2 billion at a constant price of 2010. Penang also recorded unemployment rate of 1.6% in 2015 being the lowest in a 10-year period. This was driven by investment in the service and manufacturing sectors that created job opportunities for existing and new job entrants.

I am confident that the Penang Economic and Development Report 2015/2016 will assist and benefit both the public and private sectors in formulating policies and strategies for economic development. As such, these sectors can strengthen related activities and thus increase the competitiveness and economic development of the state. This is in line with the focus of the state government to implement all planned agendas in line with the 11th Malaysian Plan (RMK-11) and enable Penang to achieve an international status.

Finally, I would like to thank BPEN and the Penang Institute as well as all those involved in preparing and publishing the present report.

Thank you.

HON. PROF. DR. P. RAMASAMY A/L PALANISAMY
DEPUTY CHIEF MINISTER II OF PENANG

FOREWORD

MESSAGE FROM THE HONOURABLE STATE SECRETARY OF PENANG

Salam Sejahtera,

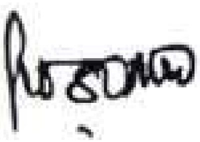
The Penang Economic and Development Report 2015/2016 is the official state document that contains multiple input of the state's economic performance and prospects that can be used by all parties in designed and implementated relevant of policies and strategies. Penang's economy is promising as compared to other states as development of growing industries depict the confidence of investors in Penang's stabillity. This growth of 5.5% in 2015 was driven by the rapid increase and progress in tourism and industry sectors, which are the largest contributors.

Despite the world economic downturn, the weakening of the Ringgit and the depreciation of crude oil's price, Penang is expected to spur in economic performance in future as there are various plans by the State Government to improve the state profile. An example the recent launch of Penang Transport Master Plan will be expected to attract more investors to Penang.

This document should be read and fully understood in order to assist us in planning the country's robust economic growth so that it can be enjoyed equally by the people. The economic growth rate has encouraged the state to face the challenges in the 11th Malaysian Plan and to sustain it.

Finally, I would like to congratulate BPEN and the Penang Institute for preparing and publishing this report. I'm also extended my gratitute to all government departments and agencies for their cooperation and commitment in providing the information necessary for the preparation of this report.

Thank you.



HON. DATO' SERI FARIZAN BIN DARUS
STATE SECRETARY OF PENANG

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Heli view of E&O Hotel towards the inner city of George Town World Heritage Site.

EXECUTIVE SUMMARY

Penang's economy is estimated to expand in 2015, outpacing the national growth rate. According to the Eleventh Malaysia Plan, while Malaysia's GDP grew favourably at 6.0% in 2014, Penang's GDP grew at 7.4%, thanks in part to the manufacturing sector's strong growth of 8.2%, and manufacturing activities are estimated to continue driving the state's economy in 2015. Its estimated GDP grows moderately at 6.2% with a projected 6.8% growth in the manufacturing sector, and a stable growth rate of 6.0% in the services sector. The positive growth is expected to continue in 2016. Likewise, both manufacturing and services sectors will remain the core economic drivers of Penang, where the electronics & electrical (E&E) and tourism industries are the core activities for the state.

A steady labour market and growing household income has been supported by greater manufacturing investment and a buoyant expansion in the shared services and outsourcing (SSO) industry. In the third quarter of 2015, Penang's labour force participation rate reached at 68.7% with unemployment rate kept below 2% in four consecutive quarters since Q3 2014. Meanwhile, median household income rose by 7.6% annually from RM4,039 in 2012 to RM4,702 in 2014. Investment in manufacturing activities created job opportunities for existing and new job entrants. Total approved manufacturing projects increased by more than 100% to RM8.2 billion in 2014 from RM3.9 billion in 2013. Approximately 58.5% of the total investment went into E&E products, creating some 7,600 new jobs. The SSO industry on the other hand observed higher demand for job seekers specialising in finance, accounting, IT computer and software.

Resilient growth in E&E manufacturing activities has led to higher export of E&E-related products. As a proxy for E&E-related products, machinery and transport equipment accounted for 72% of Penang's total exports, and grew substantially at 15% in Q1 2015 vis-à-vis the same quarter of 2014. Penang's manufacturing activities and its exports are highly associated with US economic performance. Trade balance traced in Penang's seaport, airport saw deficits in August 2014, and October 2014, as traders may be in the midst of adjusting their activities to global economic events such as the fall in oil prices and rise in US interest rate. However, the deficit

Exhibition at Hin Bus Depot, Jalan Gurdwara, seemed broken but charming in a way.

has been cushioned by the Ringgit's depreciation whereby the fall in Ringgit makes Penang exports relatively cheaper than other countries. Hence, Penang's external demand is estimated to achieve an optimistic trend.

The tourism sector continued growing robustly in 2014, underpinned by regular festival celebrations and an influx of international visitors. Coupled with the increase in hotel establishments, the number of foreign hotel guests rose remarkably by more than 50% in 2014, with most of whom stay at budget hotels. Some hotels recorded an occupancy rate of above 60%, and city hotels received greater occupancy than that of beach hotels, thanks in part to the many festivals held in the vicinity of the UNESCO World Heritage City site. Additionally, cruise tourism is another popular niche of growth in Penang. Cruise to nowhere passengers made up more than 60% of total passengers' vessels. International visitors arriving via Penang International Airport increased by nearly 7% in 2014. In 2015, more visitors are estimated to visit Penang in conjunction with Visit Penang Year 2015.

Private hospitals in Penang have received more health tourists per hospital than the national average. Penang is still the destination of choice for the majority of Malaysia's health tourists, with the number of health tourists visiting Penang increasing by 21% from 2010 to 2013. However, this growth is estimated to slow down in 2015, mainly due to the launch of Indonesia's Jaminan Kesehatan Nasional (JKN) programme, which has reduced the number of Indonesian patients who take up the lion's share of Penang's total health tourists. The revenue generated per patient has been stagnant for Penang, but healthcare service providers elsewhere in the country are gaining increasingly more revenue per head. This indicates that Penang's medical tourism sector, besides attracting more foreign patients, may still have room to improve in attracting higher-spending health tourists.

The SSO industry continues to move up the value chain from captive transactional operations to higher value-added and knowledge-based activities. Penang is in the top 31 locations in the world when it comes to business process outsourcing (BPO). A total of 15 existing manufacturing-based multinational companies (MNCs) have diversified their SSO in Penang, setting up their global shared services centres next to their manufacturing plants. Another 16 are global shared services, design centres and third-party outsourcing companies serving regional and global markets. The activities involve low, mid and high values of SSO, which are namely IT outsourcing (ITO), business process outsourcing (BPO) and knowledge process outsourcing (KPO). Cloud computing and Internet of Things (IoT) solutions will be emerging fields in big data and data analytics, which will enhance business services.

Properties in Penang serve to provide housing for the local community, and are a means of investment for foreign investors. The decreasing growth rate in the Penang population indicates that rapid growth in the housing market is unlikely to be sustainable without significant amounts of purchases by people migrating from outside the state or country. Nevertheless, property prices are not expected to go down significantly – however, due to the slower market demand and decreased planned supply units since 2014, housing prices in the coming year are not expected to rise as much as compared to previous years.

High-priced housing units, such as multi-storey landed properties and luxury condominiums experienced rapid growth in the past decade. An oversupply of such housing units could be a cause for concern, as demand for these units would be the most severely affected should the housing market faces downturn. In the midst of difficult economic situations, building the right type of housing at right pricing to meet majority demand would be the rational choice for developers.

The creative multimedia industry is a new economic area being emphasised by the Penang state government. Creative Animation Triggers (CAT) has been established to enhance local capacity and capability to produce world-class content in post-production, animation and game development. Meanwhile, the @CAT accelerator programme, or @CATa, was created to promote creative and technology startups and entrepreneurs as the new engine of growth for Penang. As a means to rejuvenate George Town, accelerator, incubation and co-working spaces have been formed at Wisma Yeap Chor Ee as a creative and technological startup zone.

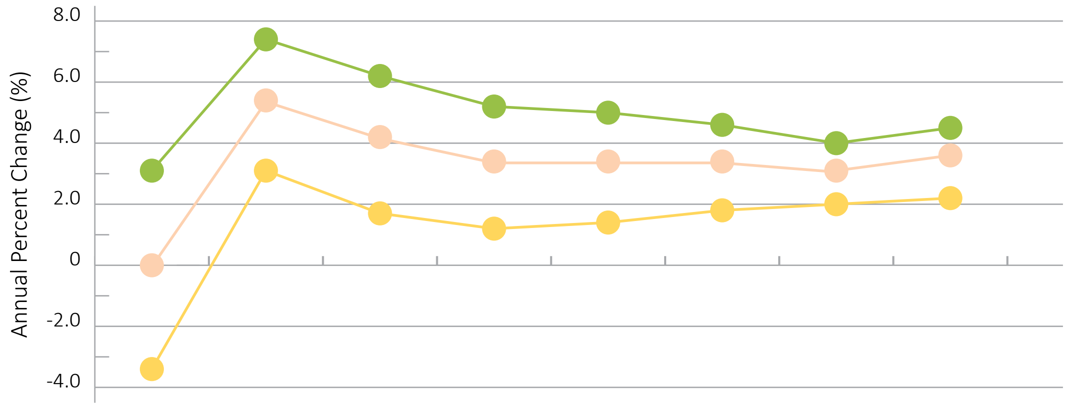
View of Penang State's Administrative Tower (KOMTAR) from Hin Bus Depot.

RECENT MACROECONOMIC DEVELOPMENTS

Steady growth in global output with gradual pickup in advanced economies

A leisure afternoon at Butterworth Port.

The global output is estimated to grow at a slower rate of 3.1% in 2015, offset by a weaker growth in emerging markets and developing economies and a gradual rebound in advanced economies.



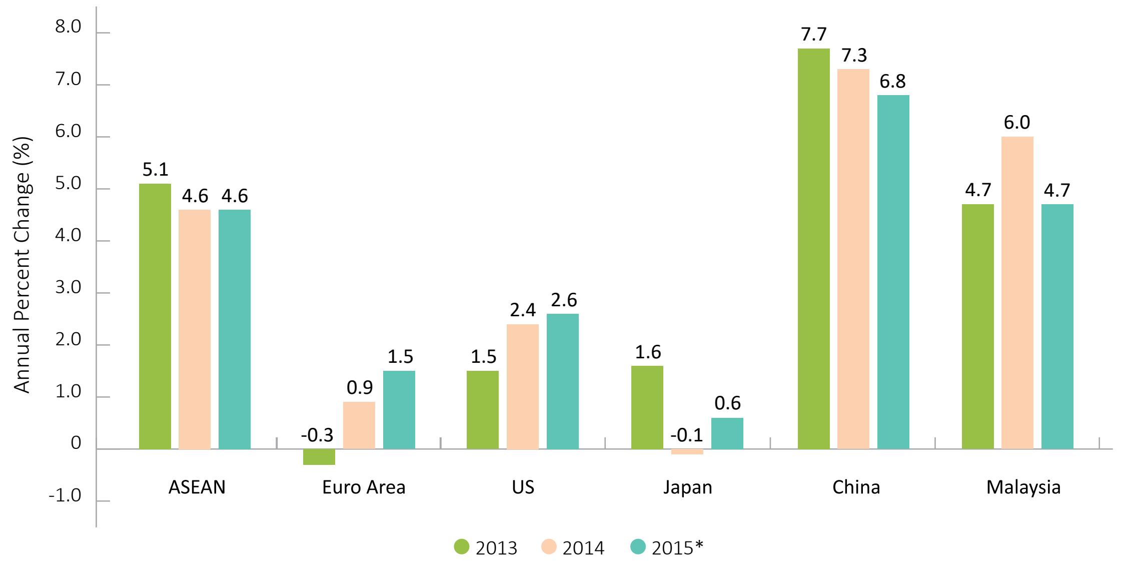
	2009	2010	2011	2012	2013	2014	2015*	2016*
World Output	0.0	5.4	4.2	3.4	3.4	3.4	3.1	3.6
Advanced Economies	-3.4	3.1	1.7	1.2	1.4	1.8	2.0	2.2
Emerging Market and Developing Econimies	3.1	7.4	6.2	5.2	5.0	4.6	4.0	4.5

Source: World Economic Outlook (WEO) Update October 2015, International Monetary Fund (IMF).

*Noted: *projection*

Figure 1.1
Growth rate of output of advanced economies, emerging economies and the world from 2009-2016*

According to the World Economic Outlook Update in October 2015, while estimated output in advanced economies gradually picks up at a rate of 2.0% in 2015, emerging markets and developing economies grows at a slower rate of 4.0% (Figure 1.1). Several factors shape this trend: the decline in oil prices lifted purchasing power and private demand for oil-importing countries while diminishing the revenue of oil exporting countries; the appreciation of the US dollar reduced US export income while increasing the export income of other countries; and a rise in interest rates (in major advanced economies) boosted government bond yields. Global output is thus estimated to grow by 3.1% in 2015, and 3.6% in 2016.



Source: World Economic Outlook (WEO) Update October 2015, International Monetary Fund (IMF).
*Note: *ASEAN includes Vietnam, Malaysia, Thailand, Indonesia and Philippines.*
** WEO Update July 2015 database is not available at the point of writing.*

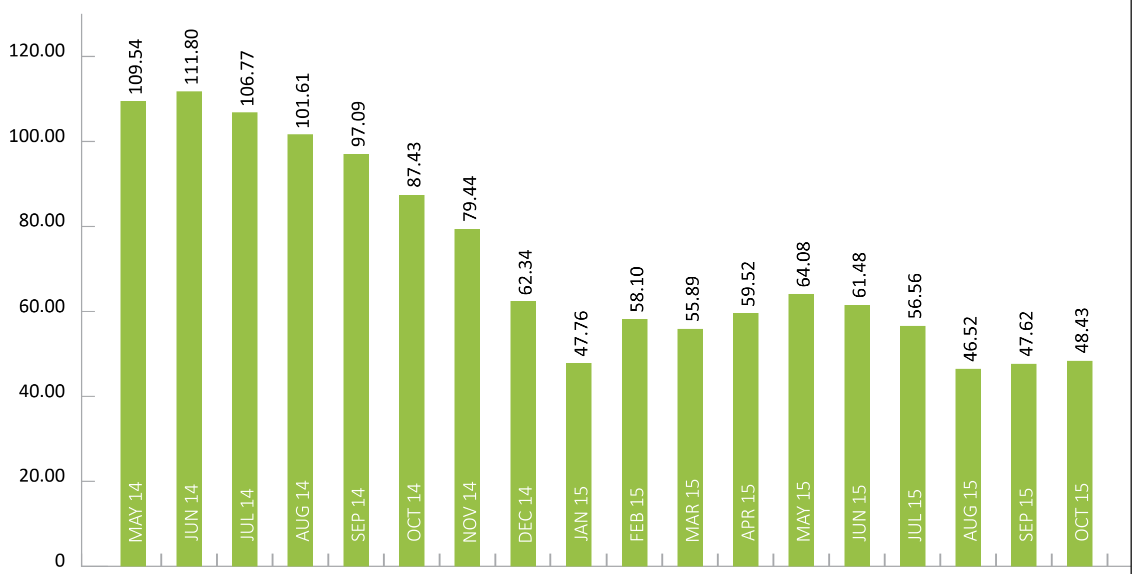
Figure 1.2
Real GDP growth rate of major countries vis-à-vis Malaysia, 2013-2015*

In terms of regional grouping and some major countries, real GDPs in most countries are estimated to experience increasing growth rates in 2015, except China and Malaysia. Despite being badly hit by the credit crunch and the Greek crisis, the US and countries in the Euro area are projected to recover with higher real GDP growth rates of 2.6% and 1.5% respectively in 2015 (Figure 1.2). On average, major countries of the Association of Southeast Asian Nations (ASEAN) are estimated to grow at a similar rate of 4.6% in 2015 despite lower commodity prices, which is expected to largely arise from improving growth rates in Thailand (2014: 0.9%; 2015: 2.5%) as a result of reduced policy uncertainty, and in the Philippines (2014: 6.1%; 2015: 6%), owing to stronger consumption resulting from the oil price windfall[1]. The steady growth in ASEAN's GDP may also be due to the anticipated full implementation of ASEAN Economic Community (AEC) by the end of 2015, where all ASEAN members are free to move their goods, services, investment and skilled labour within the region. However, the visibility of this initiative is rather limited. ASEAN leaders need to effectively increase the coverage of the AEC to their respective business communities to grasp the opportunities that will be made available to them.

[1] Refer to World Economic Outlook (WEO) Update April 2015, International Monetary Fund (IMF).

Box 1.1: The development of oil price

Movements in oil and gas prices pose significant effects on the Malaysian economy. The price of UK Brent declined by 44% per barrel from June 2014 to December 2014, and fell to US$47.76 per barrel in January 2015 (Figure 1.3). This development had a crucial impact on the domestic trade environment, as about 30% of the Malaysian government's revenue comes from oil-related industries. However, global oil prices showed a sluggish recovery of US$64.08 in May 2015, and new uncertainties such as the Chinese economy slowdown, along with additional supply from Iran, have caused oil prices to drop to US$61.48 per barrel in June 2015.



Source: Organization of Petroleum Exporting Countries (OPEC), International Energy Agency (IEA), published June 2015.

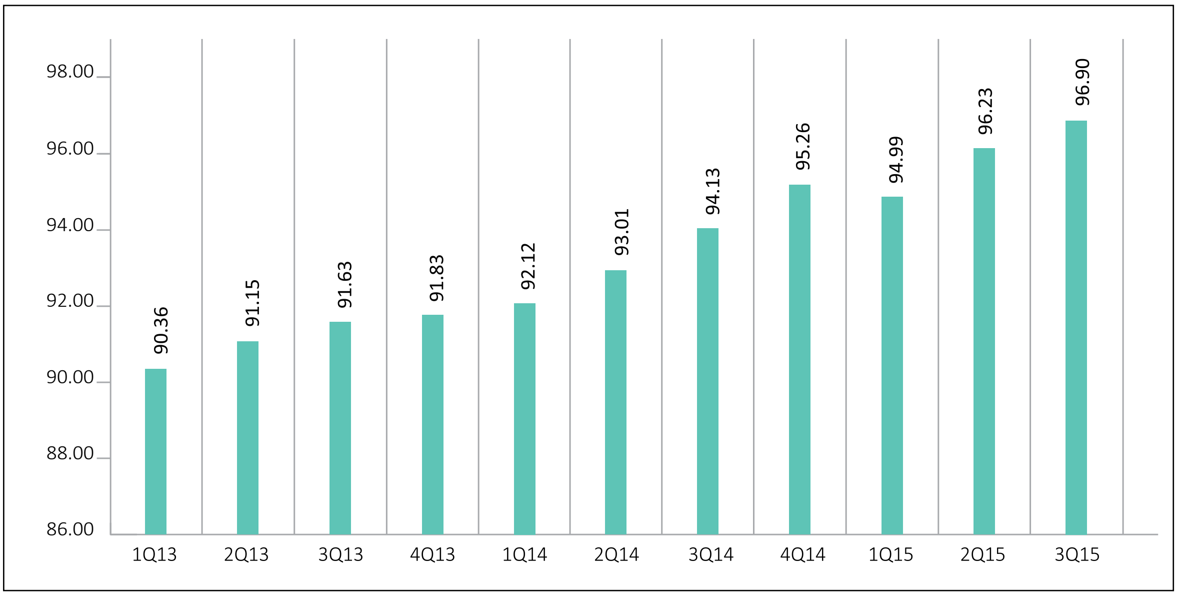
Figure 1.3
Crude oil price development of UK Brent 2014-2015

Oil Price Forecast

While OPEC continues to defend its market share, oil prices are likely to fall through 2016 as global demand slows and output remains high. For example, global demand is negatively affected by China's economy slowing down. According to the International Energy Agency's (IEA) July 2015 Oil Market Report, OECD crude oil supply rose to a three-year-high volume of 31.7 million barrels a day in June 2015 due to increased production made by OPEC member countries, namely Iraq, Saudi Arabia and the UAE.

Campbell Street - where you can find restaurant (both traditional and new) as well as wholesalers stores.

Figure 1.4 depicts that, within a year, world oil supply swelled by 3.5% to 96.23 million barrels per day in Q2 2015 from 93.01 million barrels per day in Q2 2014. As a result of lower oil prices and spending cuts in the US, the production of US. shale oil is likely to stagnate in the middle of 2016, and the output of non-OPEC Russian oil is expected to decline.

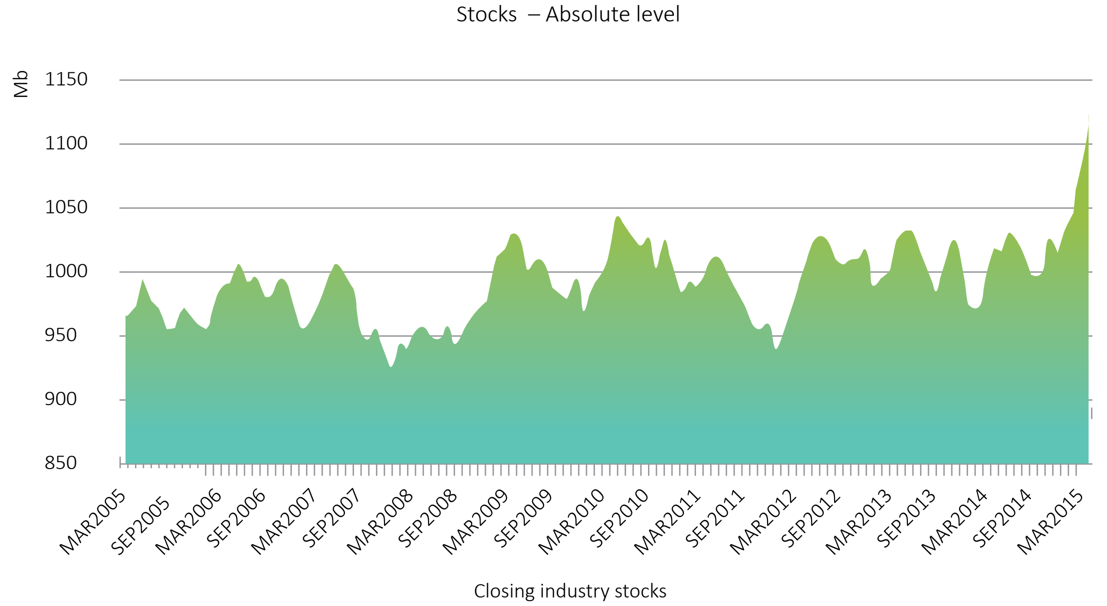


Source: IEA, published 11 December 2015.

Figure 1.4
World oil supply (million barrels per day)

Likewise, the growth of world oil demand is forecasted to moderate to 1.2 million barrels per day in 2016 from an average of 1.4 million barrels a day in 2015, due to stronger consumption in non-OPEC Asia countries. The growth of demand peaked at 2.2 million barrels a day in Q3 2015, and early indicators show the growth trend has reversed throughout the remainder of 2015[2].

The world's oil stocks have significantly increased ever since oil prices dropped in the second half of 2014 (Figure 1.5). Subsequently, oil prices are expected to fall further as the world production of crude oil remains oversupplied. The IEA expects the markets to regain momentum in 2016.

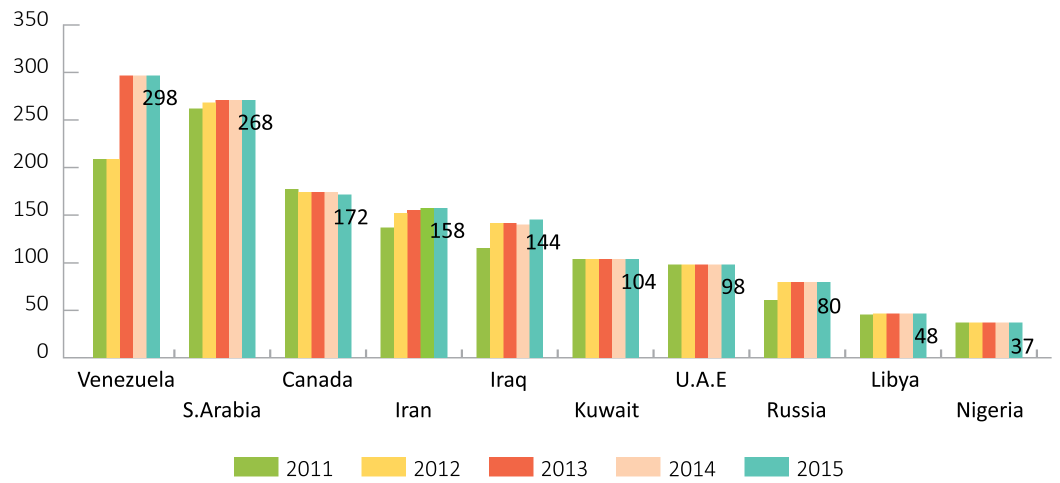


Source: IEA, 2015.

Figure 1.5
Oil stocks

[2]"Oil Market Report", IEA, 11 December 2015, https://www.iea.org/oilmarketreport/omrpublic

The supply of Iranian crude can potentially put pressure on the world's oil prices. Iran and six nations[3] led by the US signed a historic deal which loosens sanctions in exchange for restrictions on Tehran's nuclear programme. These sanctions have long constrained Iran's oil production and exports. The country is now eager to capitalise on the relaxation of these restrictions to improve its energy sector. Iran has plenty of oil kept in storage which it can export immediately. Figure 1.6 shows the biggest oil reserves by countries. With a total of about 158 billion barrels of crude oil, Iran is home to the world's fourth biggest oil reserves. The world market now has additional access to these sources.



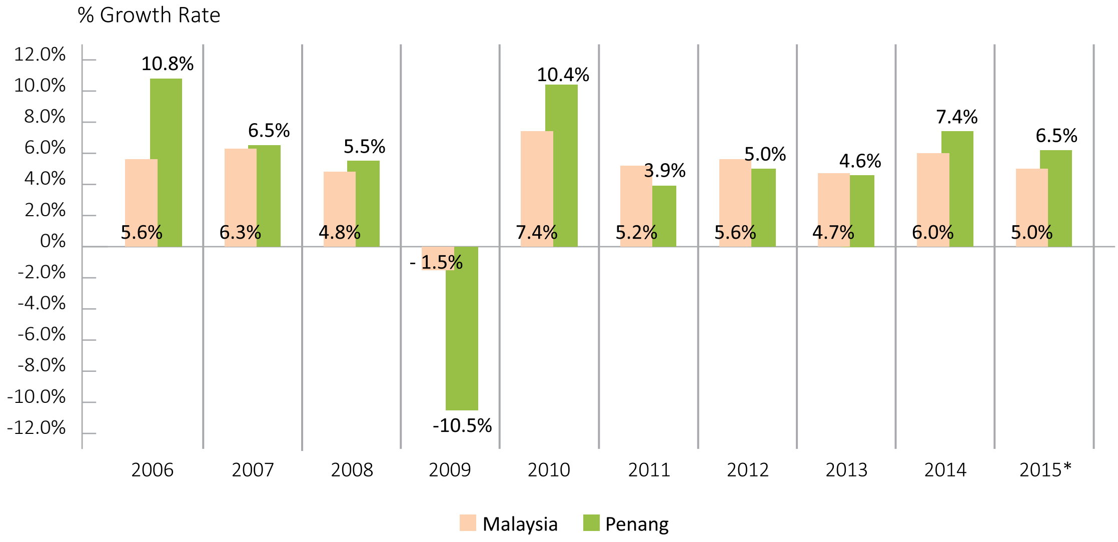
Source: EIA.

Figure 1.6: Oil reserves by country (million barrels of crude oil)

Resilient Malaysia's economic performance with strong external demand but modest domestic demand

Malaysia's GDP expanded at a four-year high of 6.0% in 2014 – an increase of 1.3% from 2013 – which recorded a rate above the average GDP growth in major ASEAN countries (Figure 1.7). In the first quarter of 2015, Malaysia's GDP continued to grow strongly with a growth rate of 5.6%; this made the estimated growth of Malaysia at 5.0% which surpasses the IMF's estimate of 4.7%. This is despite a subdued short-term private consumption from April to June 2015 as a result of the implementation of Goods and Services Tax (GST). Holding nominal income constant, it is estimated that the fall in oil prices and the removal of fuel subsidies may temporarily weaken domestic demand.

[3] P5+1 nations: China, France, Russia, UK, US, plus Germany.



Notes: The growth rates for 2006-2010 are based on 2005 constant prices. The growth rates for 2011-2015 are based on 2010 constant prices.*
Source: Department of Statistics and the Eleventh Malaysia Plan 2016-2020.

*Note: *estimation*

Figure 1.7: GDP annual growth rate in Malaysia and Penang, 2006-2015*

The estimated domestic demand continues to dominate Malaysia's economic growth in 2015. Out of RM662 billion, private consumption made up 79% of the total domestic demand while public consumption constituted only 21% in 2014. The growth in domestic demand remained resilient, albeit growing at a slower pace of 6.4% in 2014 (Table 1.1). Likewise, the estimated consumption made by the private sector grows at 6.0% (in 2015) – a slowdown of one percentage points from 2014 – but increasingly contributing more than half of Malaysia's GDP (Table 1.1 and Figure 1.8). This trend is likely attributable to buoyant job creation and low unemployment. Cash transfers made by the government further stimulates private consumption, while the estimated public spending contracts at a growth rate of 1.6% in 2015 from a positive growth rate of 4.4% in 2014. This may be due to the cuts in fuel subsidies cut as a result of the fall in oil prices.

In the first quarter of 2015, private consumption expanded at a stronger rate of 8.8% compared to the 7.6% growth registered in the previous quarter due to the stable labour market, flood relief efforts and the front-loading of household spending prior to the implementation of the GST. Subsequently, temporary change in consumers' spending patterns may show in 2015, leading to an estimated weak growth in private consumption in 2015. Nevertheless, private consumption growth is anticipated to gradually recover in 2016. Public spending, on the other hand, registered an increase of 4.1% in the first quarter of 2015, and was estimated to grow further in 2015 due to the earthquake relief supports in Ranau, Sabah.

Expenditure	2013	2014	2015^{e}	2020^{t}
Domestic demand[a]	7.0	6.4	4.4	5.9
Private consumption	7.2	7.0	6.0	6.4
Public consumption	5.9	4.4	-1.9	3.7
Investment	8.2	4.8	7.6	7.2
Private investment	12.8	11.0	9.0	9.4
Public investment	1.9	-4.7	5.3	2.7
External demand	-9.8	12.8	-5.5	0.4
Exports of goods and services	0.3	5.1	2.6	2.1
Imports of goods and services	1.7	4.2	3.7	2.3
GDP	**4.7**	**6.0**	**5.0**	**5.8**

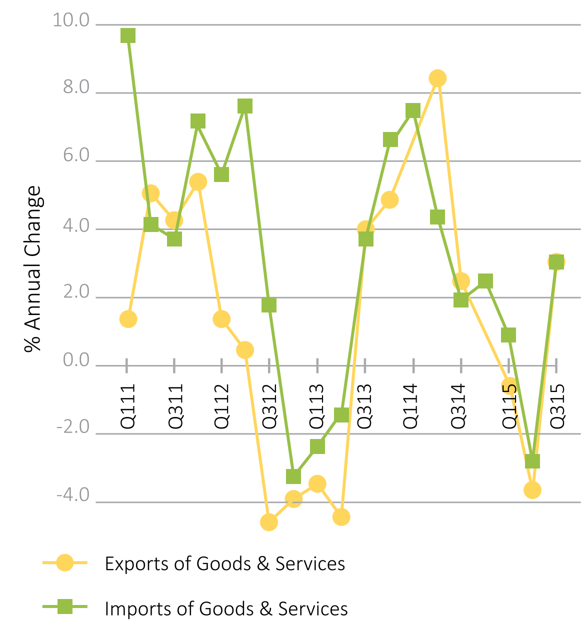
Source: Calculated based on the Eleventh Malaysia Plan 2016-2020.

Note: [a] Domestic demand excludes gross fixed investment
[e] estimate
[t] target

Table 1.1
GDP growth by expenditure category in Malaysia, 2014 and 2015^{e} (%, in 2010 prices)

Malaysia's investment component is spearheaded primarily by the private sector. As shown in Figure 1.8, the contribution of private investment to total GDP had proportionately grown from 12.3% in 2010 to 16.6% in 2014 while contribution from government investments have scaled down to 9.5% in 2014 - a drop of 10.1 percentage points from 2010. Though the growth of private investment moderated to 11% in 2014, government investment experienced a fall of 4.7% in 2014, delineating a significant slowdown of 4.8% in total investment (Table 1.1). However, this trend is estimated to gradually rebound in 2015. Private investment recorded a stronger growth of 11.7% in Q1 2015 (Q4 2014: 11.1%) underpinned by capital made in manufacturing and services sectors, while government investment rose at 0.5% after seven consecutive quarters of contraction since Q2 2013. This could be in line with the Economic Transformation Programme (ETP)'s objective, which aims to increase the private sector's role as the key driver of economic growth.

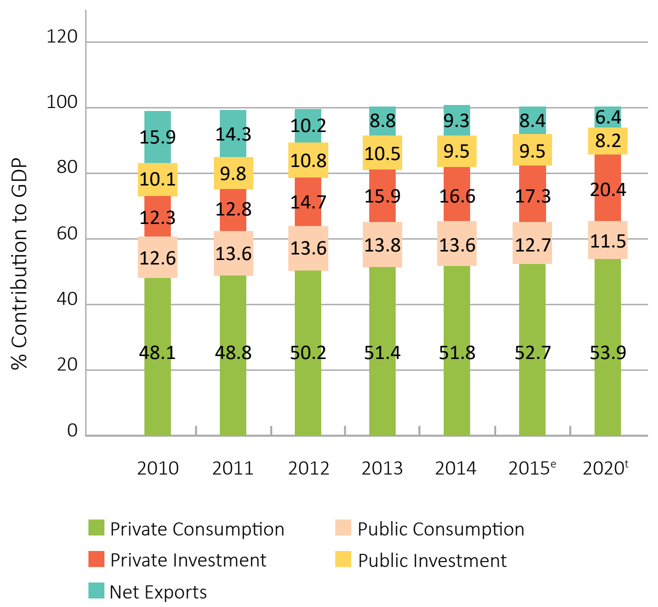
Figure 1.9
Growth in exports and imports of goods and services in Malaysia, Q1 2011-Q3 2015 (% annual change, in 2010 prices)



Source: Monthly Statistics Bulletin November 2015, Bank Negara Malaysia.

External demand grew strongly in 2014 after four consecutive years of contraction, but slipped back into negative growth in Q1 2015, with growth recovering in Q3 2015. As can be seen in Figure 1.9, the growth in exports of goods and services peaked at 8.7% in the second quarter of 2014. Exports declined in the first two quarters of 2015, but recovered in the third quarter with a growth rate of 3.2%. This is likely due to a drastic fall in commodity-related exports. Crude oil and condensates volume surged by 28.7% in April 2014 but plunged steeply by 12.8% in May 2014 (Figure 1.10). The volatility in crude oil and liquefied natural gas (LNG) prices also led its volumes to fluctuate dramatically. The volume of crude oil in particular escalated by 50.9% in January 2015 which also largely correlates with the weakening Ringgit against the US dollar but dipped by 30.4% in the following month as the Ringgit appreciated by 0.3% in February 2015. Meanwhile, exports in major manufactured goods also softened in the first four months of 2015 (Figure 1.11). Given that exports in manufactured goods constituted about 80% of the total gross export values (October 2015), E&E exports made up 43% of the total manufactured goods exports and grew by 6.8% in the first quarter of 2015, slowing down to 3.1% in Q2 2015with growth recovering at a rate of 14.2% in Q3 2015. Therefore, total exports of goods and services is estimated to grow slower at only 2.6% compared to imports of goods and services growth of 3.7% in 2015.

Figure 1.8
Percentage contribution of expenditure components to GDP in Malaysia, 2010-2020[t]



Source: Calculated based on the Eleventh Malaysia Plan 2016-2020.
Note: The percentage does not add up to 100% due to discrepancy found in the data
[e] Estimate; [t] Target

On the supply side, all economic sectors are estimated to grow moderately in 2015 with services sector remaining as the key economic driver in Malaysia (Figure 1.12). In 2014, the services sector accounted for about 54% of the national GDP, followed by manufacturing (23%), agriculture (9.2%), mining & quarrying (9.0%) and construction (4.3%)[4]. Wholesale & retail trade, accommodation and restaurants continued to be major contributors to the growth of services sector, growing at 8.5% in 2014. This sub-sector is estimated to grow at 7.0% in 2015. Despite slower economic growth estimated in 2015, buoyant growth made in construction projects such as the Mass Rapid Transit (MRT) and extension of Light Rail Transit (LRT) is estimated to continue propelling the growth in the construction sector by 10.5% in 2015. This effect will be felt mainly in the Klang Valley. Similarly, the National Information and Communication Technology Association of Malaysia (Pikom) estimated that the ICT industry is to register a double-digit growth of 14.2%, driven by the intensification of digitised projects and the consumption, investment and trading of ICT products and services[5].

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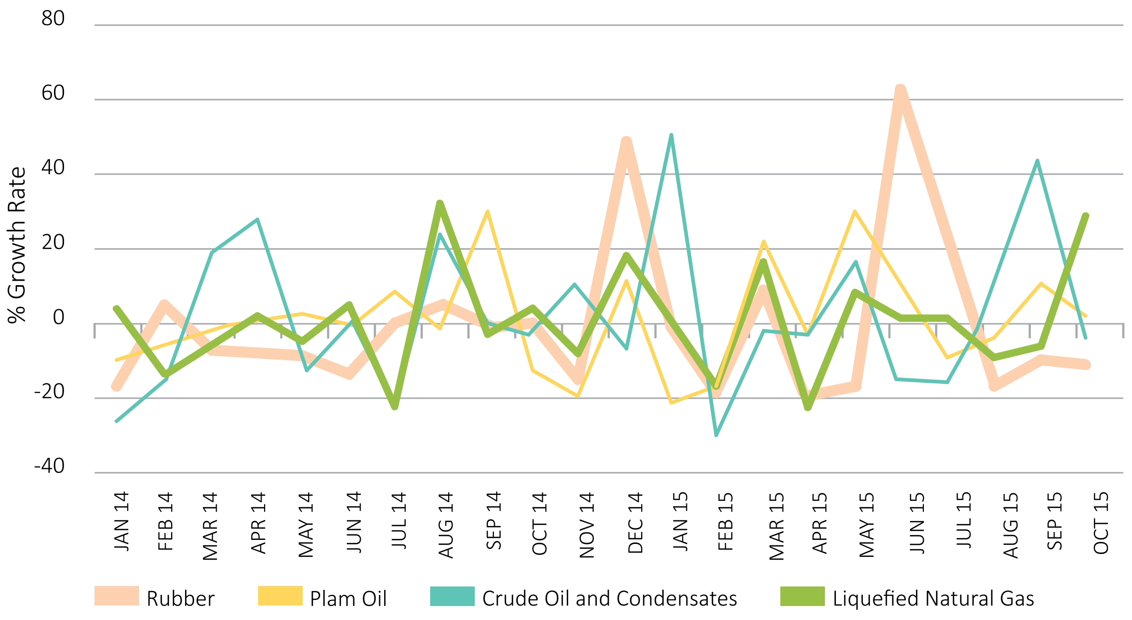
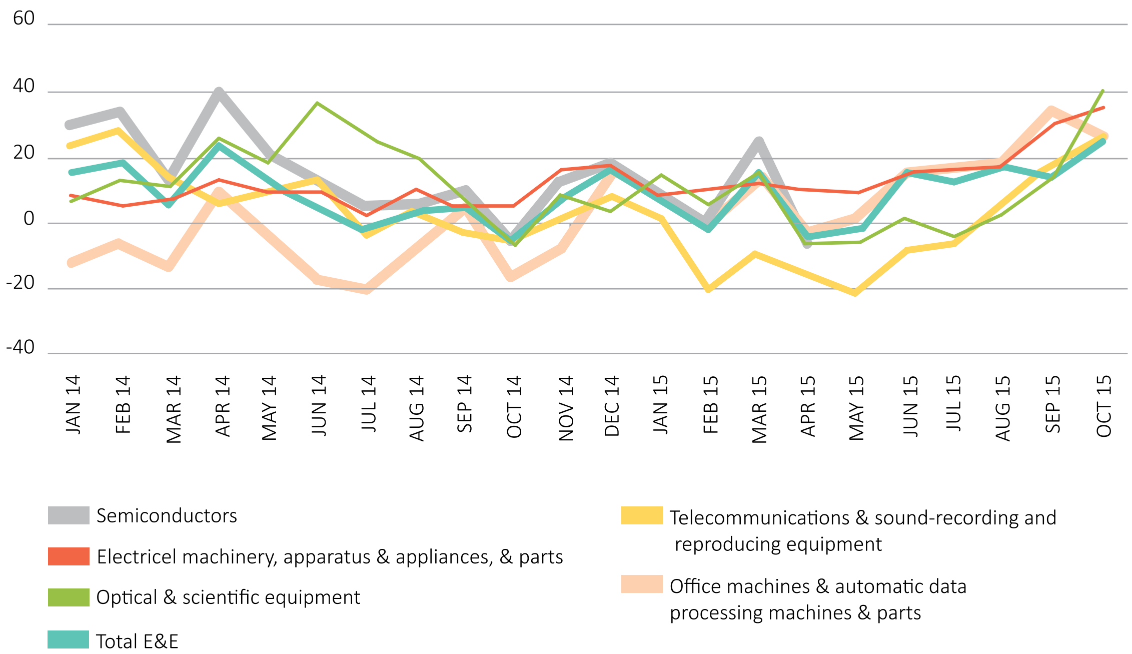
[4] Despite construction sector experiencing double-digit growth since 2012, it is the smallest sector contributing to Malaysia's economic growth.

[5] "ICT industry to register double-digit growth this year", theSun, 22 July 2015, http://www.thesundaily.my/news/1496656.



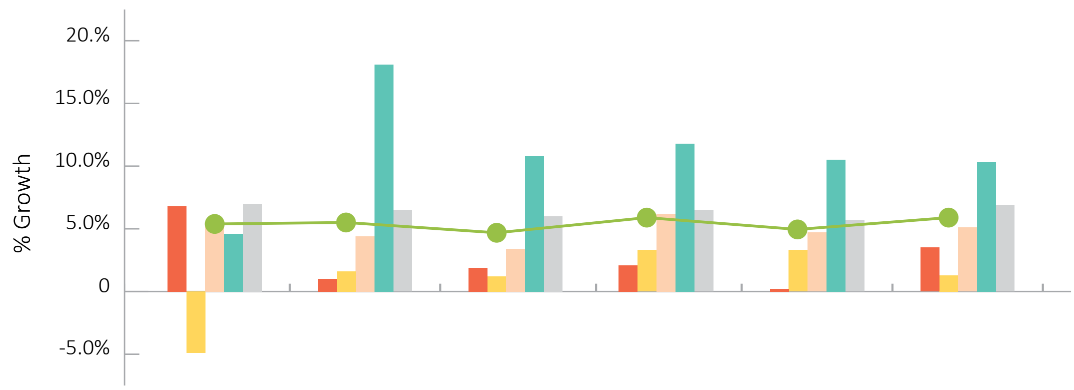
Source: Monthly Statistics Bulletin May 2015, Bank Negara Malaysia

Figure 1.10
Growth in gross export volumes by major agriculture and mining commodities, Jan 2014 - Oct 2015



Source: Monthly Statistics Bulletin May 2015, Bank Negara Malaysia.

Figure 1.11
Growth in gross export values by major manufactured goods, Jan 2014-Oct 2015



	2011	2012	2013	2014	2015[e]	2015[e]-2020[t] CAGR
Agriculture	6.8%	1.0%	1.9%	2.1%	0.2%	3.5%
Mining and Quarrying	- 4.9%	1.6%	1.2%	3.3%	3.3%	1.3%
Manufacturing	5.4%	4.4%	3.4%	6.2%	4.7%	5.1%
Construction	4.6%	18.1%	10.8%	11.8%	10.5%	10.3%
Services	7.9%	6.5%	6.9%	6.5%	5.7%	6.9%
GDP	5.3%	5.5%	4.7%	6.0%	5.0%	5.8%

Source: Eleventh Malaysia Plan 2016-2020.
Note: [e] estimate; [t] target; CAGR=compounded annual growth rate

Figure 1.12
GDP growth rate by economic sector in Malaysia, 2011-2020[t] (%, in 2010 prices)

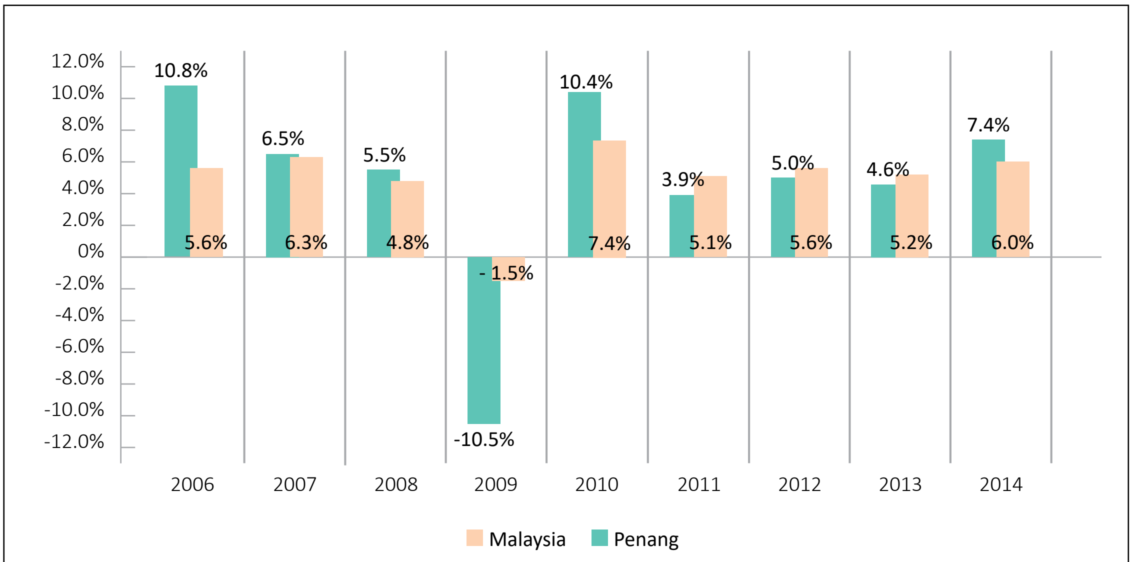
In response to the fall in global oil prices, Malaysia's fiscal and current accounts are estimated to weaken in 2016. Oil prices dipped to as low as US$52 per barrel at the end of 2014 and plunged further to US$36.6 per barrel on the last day of 2015, putting Malaysia's fiscal accounts in a difficult position. Though oil prices saw a gradual hike in the first half of 2015, OPEC estimated that it will linger below US$100 per barrel for the next decade[6]. As a net oil exporter, where 30% of fiscal revenue are made as dividends and taxes paid by Petronas, fiscal accounts would have to adjust gradually to lower oil revenues. Export revenue is estimated to slow in 2015. As reflected in the Eleventh Malaysia Plan, gross export in mining sector is estimated to shrink by 30.3% in 2015, resulting in a smaller current account balance. Industry players are beginning to feel the impact of the plunge in global crude oil prices. Petronas has initiated cost-cutting measures through salary reductions, retrenchment and redeploying manpower[7]. Penang is seen to be less affected because revenue made in the oil and gas sector does not play a role in Penang's economy.

[6] "OPEC Sees Oil Price Below $100 a Barrel in the Next Decade", The Wall Street Journal, 12 May 2015, http://www.wsj.com/articles/opec-sees-oil-price-below-100-a-barrel-in-the-next-decade-1431347035.

[7] "Oil and gas players hit by slowdown in projects," The Sun, Sunbiz, 13 May 2015.

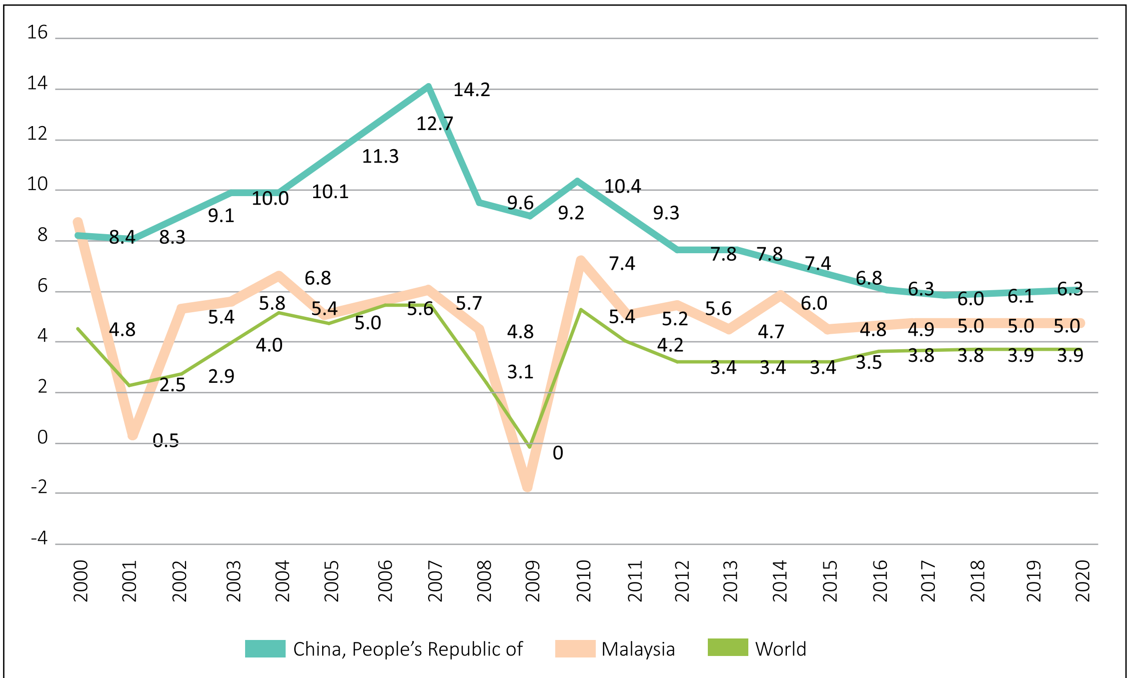
Box 1.2: The impacts of oil price on Malaysia's and Penang's economy

Malaysia is an open economy. During the global financial crisis in 2009, Penang's GDP growth rate contracted by 10.5%, as shown in Figure 1.13 and Figure 1.14. As world demand decelerated, it affected Penang's external demand. When the US economy began to rebound in 2010, it raised Penang's GDP growth well above Malaysia's in 2010. Therefore, Penang's economic growth is very much dependent on the world economic environment.



Source: Economic Planning Unit & 11th Malaysia Plan (2016-2020).

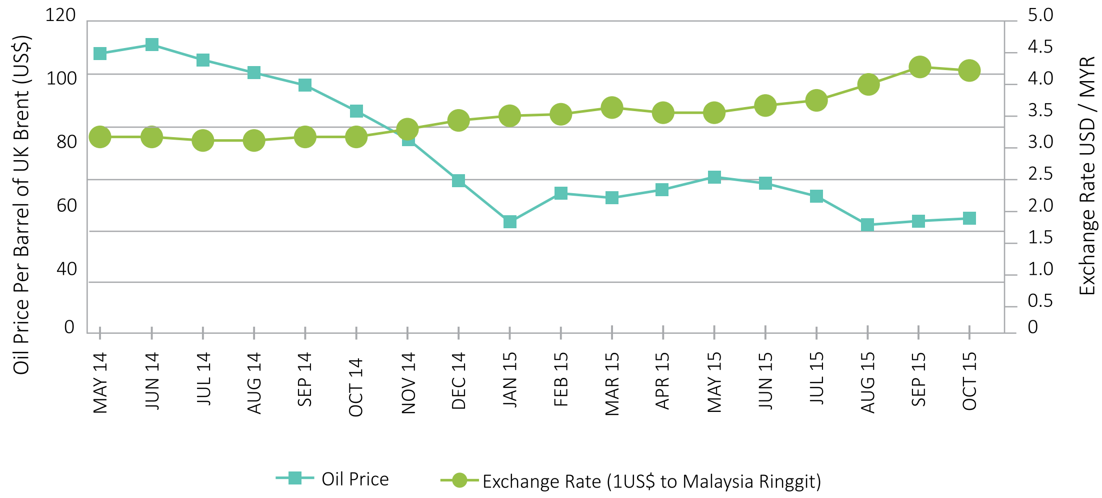
Figure 1.13: GDP growth rate, Penang & Malaysia



Source: International Monetary Fund (IMF).

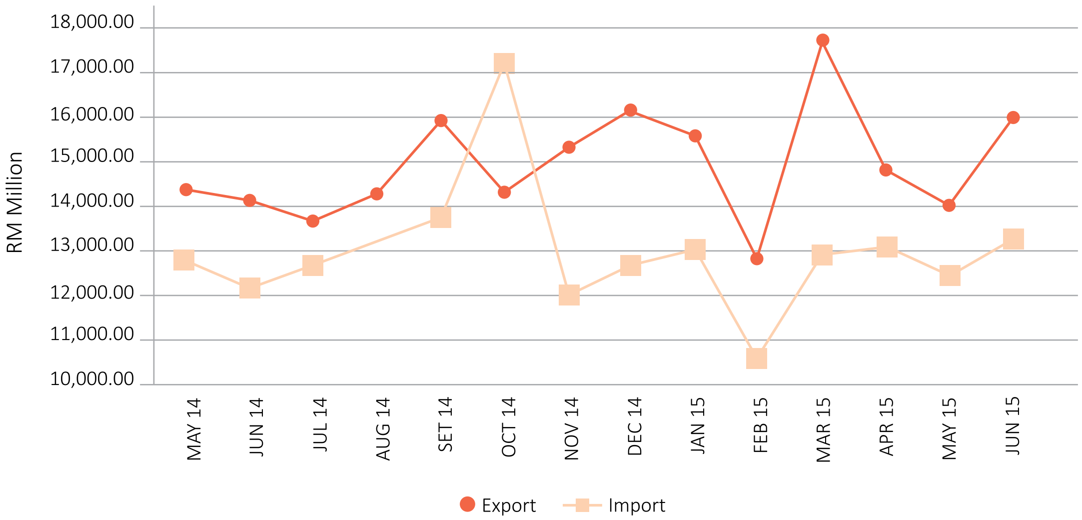
Figure 1.14: Real GDP growth

Figure 1.15 shows the relationship between oil price and the USD/MYR exchange rate. While oil price declined from May 2014-January 2015, the Ringgit depreciated against the US dollar in the same period. With the weakening Ringgit, exports from Penang are likely to benefit. However, if the world economy is slowing down, this is likely to affect Penang's economic performance.



Source: statista.com

Figure 1.15
Relationship between oil price and USD/MYR exchange rate

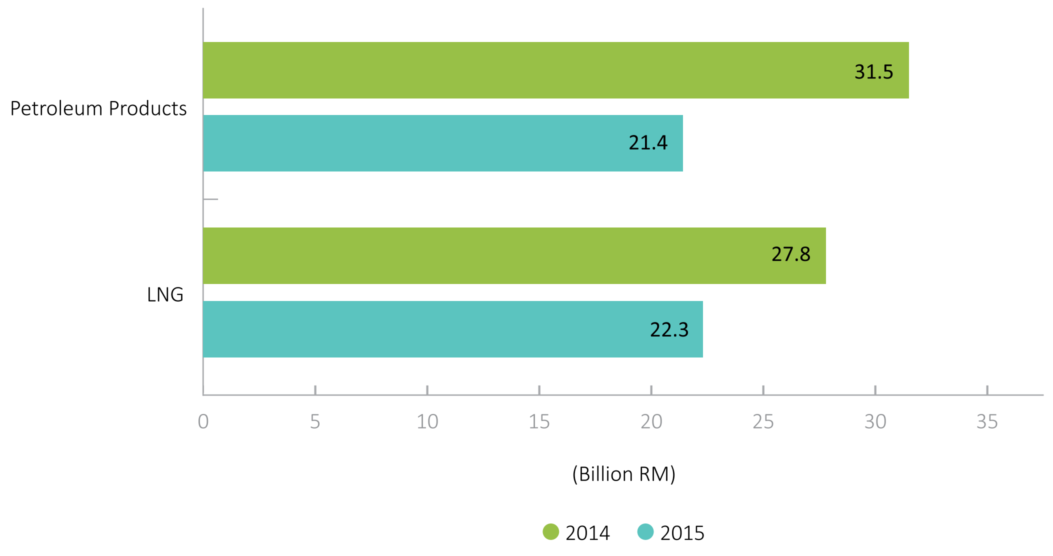


Source: Department of Statistics Malaysia.

Figure 1.16
Export and import via Penang's seaport and airport from May 2014-June 2015

LNG price forecast

Malaysia's exports for LNG have dropped from RM27.8 billion in the first five months of 2014 to RM22.3 billion in the same period in 2015 (Figure 1.17). When oil prices fell from US$111.8 per barrel in June 2014 to US$47.76 per barrel in January 2015, LNG prices were not immune to this development, tending to adjust to crude oil prices with approximately a six-month lag. The 2015 Medium-Term Gas Market Report by the IEA forecasted that global gas demand will reaccelerate following a slowdown in 2013 and 2014. On average, global gas demand is projected to grow at 2% between 2014 and 2020, slower than the average growth of 2.3% over the previous 10 years, with several factors weighing on the scale of the recovery[8]. These factors include a slower thermal generation growth; a sluggish electricity growth in the power sector in Europe and the US; return of nuclear power in Japan; and the geopolitical dispute between Russia and Ukraine, while Europe shifts away from its dependency on gas to other resources.



Source: MITI, Malaysia.

Figure 1.17: Exports for petroleum products and LNG (Jan-May 2014 and 2015)

According to the same report, the LNG market will have to cope with a new flood of supplies over the next two years. Till 2020, it is predicted that additional global LNG export capacity will amount to more than 40% of today's existing infrastructure, with almost half of the incremental supply due in 2016 and 2017.

[8] "Medium-Term Gas Market Report", International Energy Agency, June 2015 https://www.iea.org/newsroomandevents/pressreleases/2015/june/despite-decline-in-oil-prices-natural-gas-demand-outlook-revised-down.html

Malaysian Ringgit Forecast

In conjunction with world market uncertainties and volatile oil prices, the Ringgit dropped to its lowest level since 1999 in September 2015. The Malaysian currency is also under pressure, as investigators uncovered nearly US$700 million moving through agencies, banks and companies linked to state-controlled investment fund 1MDB. It is believed that the weak oil and commodity prices along with the 1MDB issue may dampen investor confidence, and may put further pressure on the country's currency and its economy at large.

Penang's growth continues, and both manufacturing and services sectors are equally important

Sector								
	% growth		% share		% growth		% share	
	2014	2015*	2014	2015*	2014	2015*	2014	2015*
Agriculture	2.1	0.2	9.2	8.8	4.0	1.7	2.2	2.1
Mining & quarrying	3.3	3.3	9.0	8.8	0.0	2.7	0.1	0.1
Construction	11.8	10.5	4.3	4.5	5.8	4.7	2.7	2.7
Manufacturing	6.2	4.7	23.0	23.0	8.2	6.8	46.0	46.3
Services	6.5	5.7	53.5	53.8	6.9	6.0	48.2	48.1

Source: Eleventh Malaysia Plan 2016-2020.

Notes: Numbers may not be necessarily add up due to rounding.
**estimation*

Table 1.2
Projected Malaysia's and Penang's GDP in 2014 and 2015* (2010 prices)

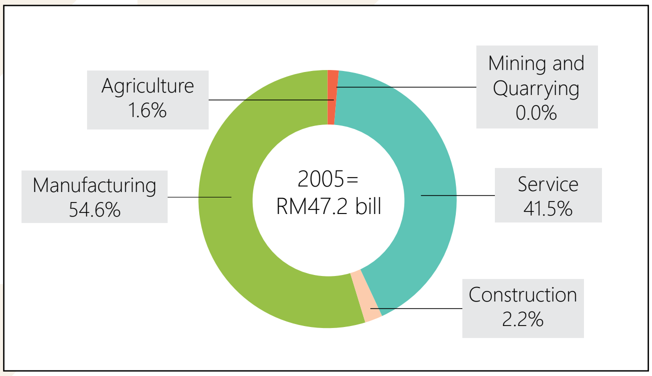
Due to Penang's reliance on the US's economic recovery, Penang's GDP grew handsomely in 2014, and the growth is estimated to moderate in 2015. According to the Eleventh Malaysia Plan 2016-2020, Penang's estimated GDP grew at 7.4% in 2014, surpassing the national GDP growth rate of 6.0% (Table 1.2). Although Penang contributed only 6.6% of national income, its manufacturing activities accounted for 13.2% of the total national manufacturing output, and grew substantially by 8.2% in 2014. This contribution will continue to expand to as high as 14.4%, and is estimated to continue growing strongly at 6.8% in 2020. Likewise, all economic sectors are estimated to grow weaker in 2015 but the estimated growth is to surpass the growth rates of the national's agriculture, manufacturing and services sectors.

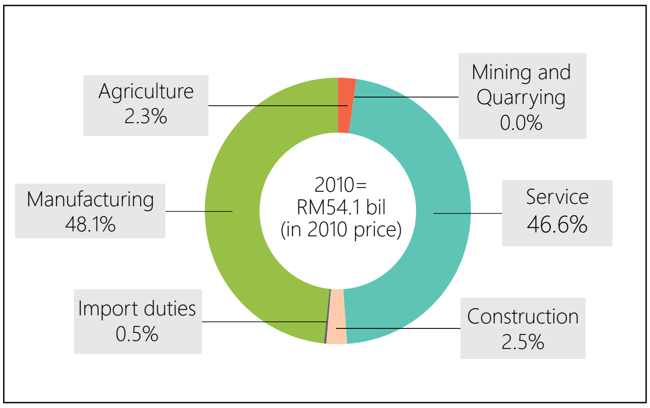
Skyline of high rises along Persiaran Gurney.

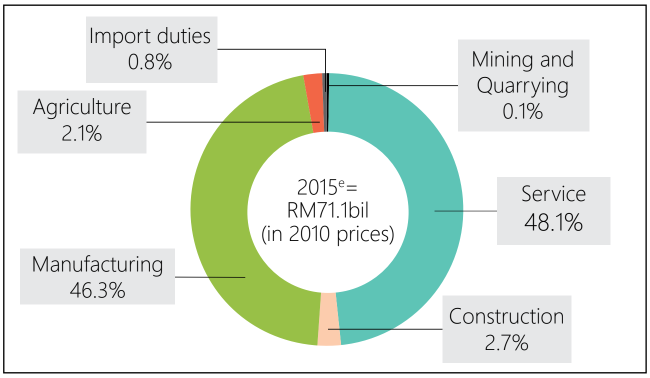
Penang's economic structure has been evolving over the past decades. Manufacturing activities expanded progressively from 23.4% in 1975 to 38.1% in 1990[9]. Figure 1.18 illustrates the sector share of each economic activity for 2005, 2010, 2015 (estimated) and 2020 (projected) in Penang. As can be seen, the manufacturing sector constituted well over half (54.6%) of total Penang's GDP in 2005. The share declined to about 51% in 2010, and it is estimated to fall further to about 47% in 2015. Services activities, in turn, is estimated to increase in importance while value of core manufacturing activities will continue to grow steadily in the long term. This pattern is consistent with the maturity of the economy and the Penang state government's initiative to converge manufacturing and services industries through shared services and outsourcing (SSO) related businesses. This is essentially a step forward to move Penang's households out of the middle-income trap.

Manufacturing and services sectors continue to be the backbone of Penang's economic growth. In 2015, over 94% of Penang's total estimated GDP was generated by manufacturing and services activities. Of these, manufacturing and services sectors respectively made up 46.3% and 48.1% of the total output (Figure 1.18). This composition is projected to linger at about the same rate in the next five years, which is predicted to make up 47.1% and 48.1% of Penang's total GDP in 2020, respectively (Figure 1.18). While smaller contribution is predicted to be made by the agriculture and construction sectors, the growth in the manufacturing and services sectors are likely to be equally important to Penang's economic development. Specifically, the SSO and creative industries are identified to be the emerging growth sectors contributing to Penang's services output. As a means to move up the value chain of the manufacturing industries, some low-skilled labour intensive assembly activities have gradually shifted away from Penang, and a number of them has refocused their operations to human capital-oriented activities such as research & development (R&D), design & development (D&D) and support services.

[9] Kharas, H., Zeufack, A. & Majeed, H. (2010) Cities, people and the economy: A study on positioning Penang. Khazanah Nasional and The World Bank.







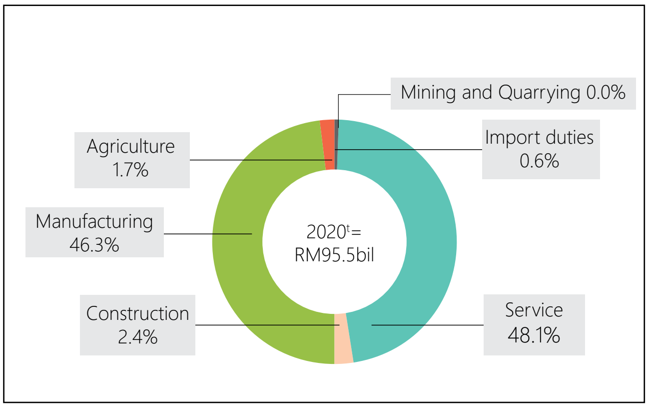
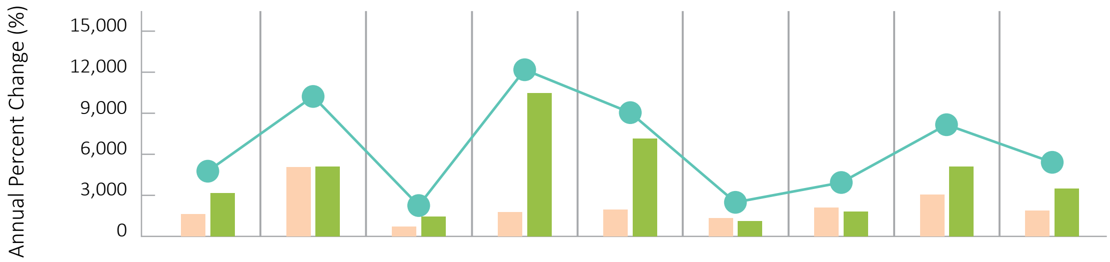


Figure 1.18
Share of GDP by economic sectors in Penang, 2005, 2010, 2015[e] and 2020[t]

Source: Department of Statistics Malaysia and Eleventh Malaysia Plan.

Note: Numbers may not necessarily add up due to rounding.
[e] estimate
[t] target

Penang's manufacturing sector remains bullish. Penang's manufacturing sector recorded a sturdy growth rate of 8.2% (Malaysia: 6.2%) in 2014, and it is estimated to increase by 6.8% (Malaysia: 4.7%) in 2015, as shown in Table 1.2. This trend is likely due to the quick pick-up made in approved manufacturing investment. As can be seen in Figure 1.19, Penang's approved manufacturing investment increased by more than 100% to RM8.2 billion in 2014 compared to RM3.9 billion in 2013. Of these, about 63% of the total investment was contributed by foreign companies and the remaining 37% was made by domestic investors. This proportion continued for the first nine months in 2015. This shows that Penang remains as an attractive place for multinational companies to invest in new manufacturing activities or expand their existing high value-adding manufacturing operations.

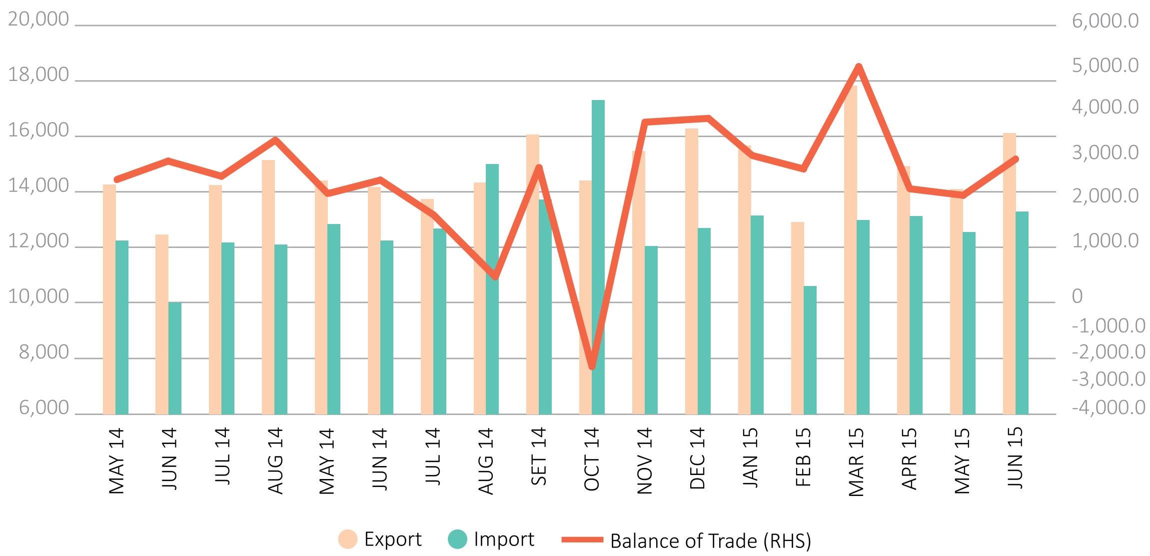


	2007	2008	2009	2010	2011	2012	2013	2014	Jan- Sep 2015
Domestic	1,625.2	5,068.7	716.7	1,786.9	1,960.4	1,344.9	2,117.9	3,048.8	1,897.1
Foreign	3,143.4	5,087.6	1,448.5	10,451.1	7,145.6	1,126.5	1,794.4	5,113.6	3,503.8
Total	4,768.7	10,156.3	2,165.2	12,238.0	9,106.0	2,471.5	3,912.3	8,162.4	5,400.8

Source: Malaysian Investment Development Authority (MIDA).

Figure 1.19: Penang's approved manufacturing investment (RM million), 2007-2015 (Jan-Sep)

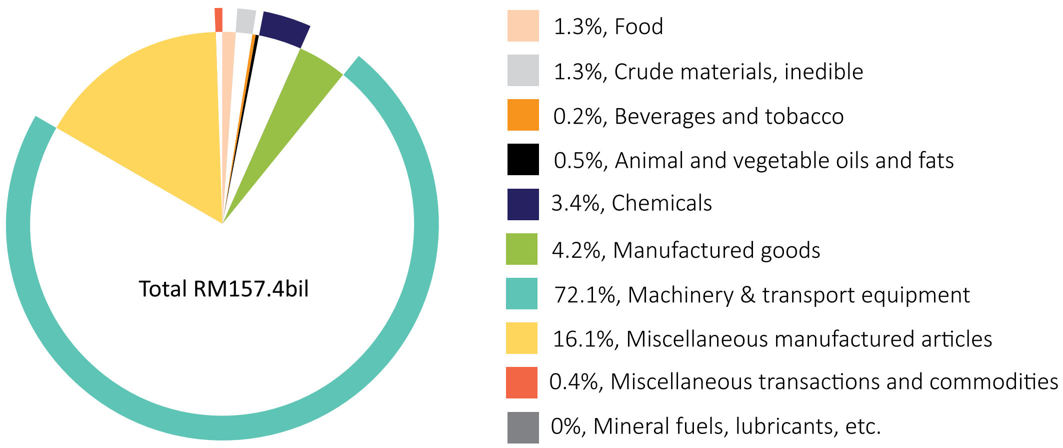
Despite experiencing a trough in trade balance in Oct 2014, Penang's external trade shows a positive trend from January 2014 through March 2015. Tracking trade values at Penang's seaport and airport, the trade surplus grew steadily from January-June 2014, but narrowed in the second half of 2014 – the smallest contribution in trade surplus of 21.8% of the national trade surplus in the past decade. Nevertheless, Penang's total trade increased at a faster pace of 8.7% relative to its GDP growth rate of 8.2%. Interestingly, this figure also reflects the increasing reliance of Penang on the global economy. The transient effect of sharp fall in oil prices and weakening of Malaysia Ringgit may have rendered exporters to increase its import of intermediate goods – as raw materials in production – in preparation for higher export demand in the future. Consequently, import values exceeded export values, entailing a negative trade balance in October 2014 (Figure 1.20). Trade surplus, however, immediately rebounded in the first quarter of 2015, registering more than half of the total trade surplus generated in 2014.



Source: Department of Statistics Malaysia.
Note: The data is gathered at the entry and exit points of Penang Port and Penang International Airport. It is used as a proxy for the growth of external sector in Penang.

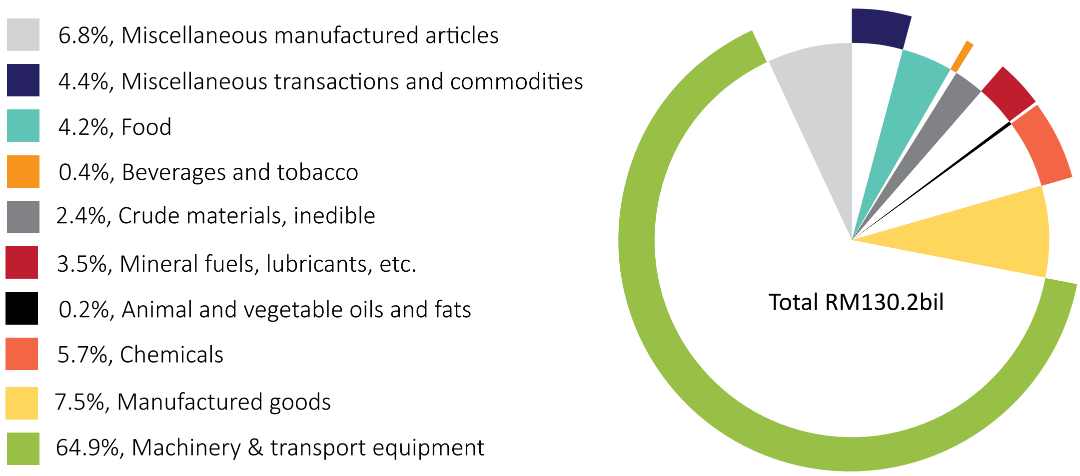
Figure 1.20: Export, import and balance of trade via Penang's seaport and airport (RM million), Jan 2014-Jun 2015

Export of E&E-related products remain Penang's key economic driver. Machinery and transport equipment accounted for 72% of Penang's total exports, and grew substantially at 15% in the first quarter of 2015 (RM33.2 billion) compared to the corresponding quarter in 2014 (RM28.9 billion), as shown in Figure 1.21. This category consists of electrical machinery, apparatus and appliances, office machines, and telecommunications, sound, reproducing apparatus and equipment. Likewise, import of machinery and transport equipment constituted the largest share, at 72.6% for January - October 2015 (Figure 1.22). In view of Ringgit's depreciation and Penang serving as an electronics hub for Southeast Asia, Penang's external demand is estimated to expand at a healthy level. This is supported by inference from the Q1 2015 Malaysian Institute of Economic Research's (MIER) Business Conditions Survey where the manufacturing sector exhibited an increase in domestic orders, export orders and production. Similarly, Semiconductor Equipment and Materials International (SEMI)'s book-to-bill ratio saw a strong global demand in semiconductor equipment in the first three months of 2015, where higher orders were received for every US$100 of products being billed (see chapter 2: manufacturing).



Source: Department of Statistics Malaysia.

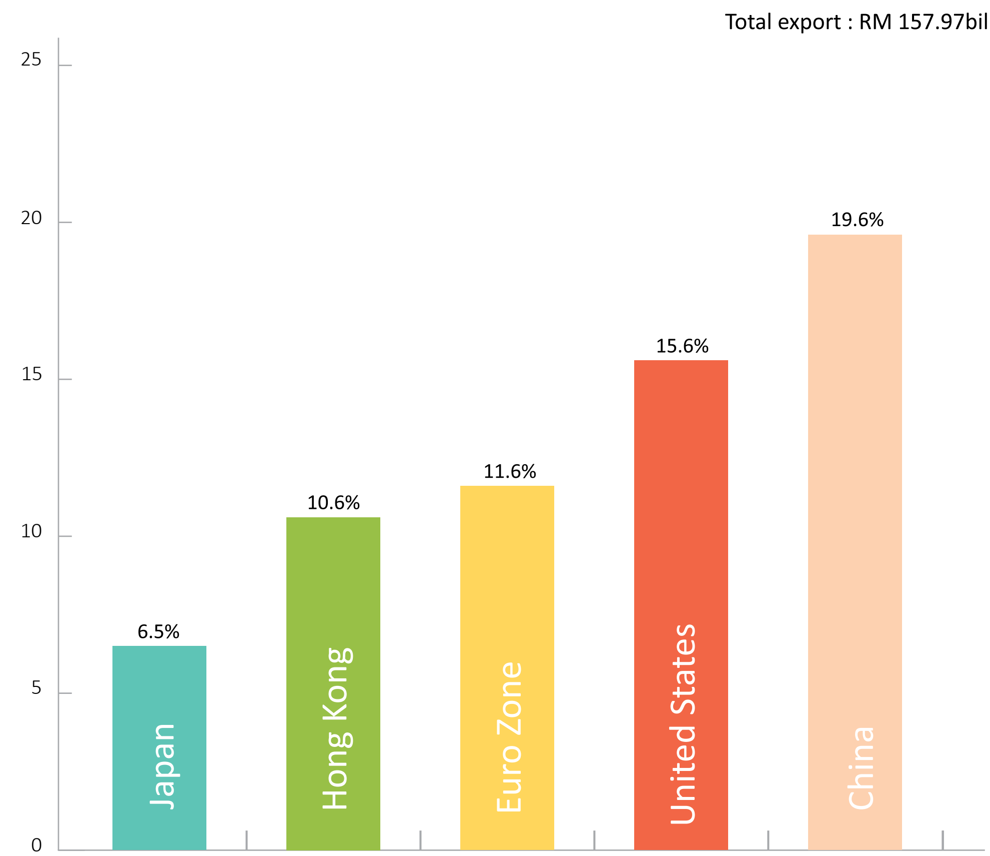
Figure 1.21: Export by major products in Penang, Jan-Oct 2015



Source: Department of Statistics Malaysia.

Figure 1.22
Import by major products in Penang, Jan-Oct 2015

Based on the percentage share of total trade, Penang's five major trading partners are China (including Hong Kong), the US, Japan, the Euro zone and Singapore. These countries accounted for nearly 51% of Penang's total trade in the first eleven months of 2014[10]. Exports to China continued to contribute the largest share of Penang's total export, accounting for nearly 20% from January-November 2014 (Figure 1.23). This is then followed by exports to the US (15.6%), Euro zone (11.6%), Hong Kong (10.6%) and Japan (6.5%). China and the US remain as Penang's major trading partners. In other words, Penang's external trade is heavily dependent on the economic performance of these countries. When both countries perform relatively well, higher external demand is to be expected. Besides, amidst stiff trading environment and the Ringgit's depreciation, the full realisation of an Asean Economic Community (AEC) where goods, services, investments and skilled labour flow freely, is predicted to enhance trading activities within the region. Thus, countries with competitive advantages are expected to gain from this grouping.



Source: Department of Statistics Malaysia

Figure 1.23
Major export countries from Penang, Jan-Nov 2014

[10] Since the Department of Statistics Malaysia does not provide the breakdown of exports and imports at country level beginning from Dec 2014, we are unable to report this data for the whole year of 2014.

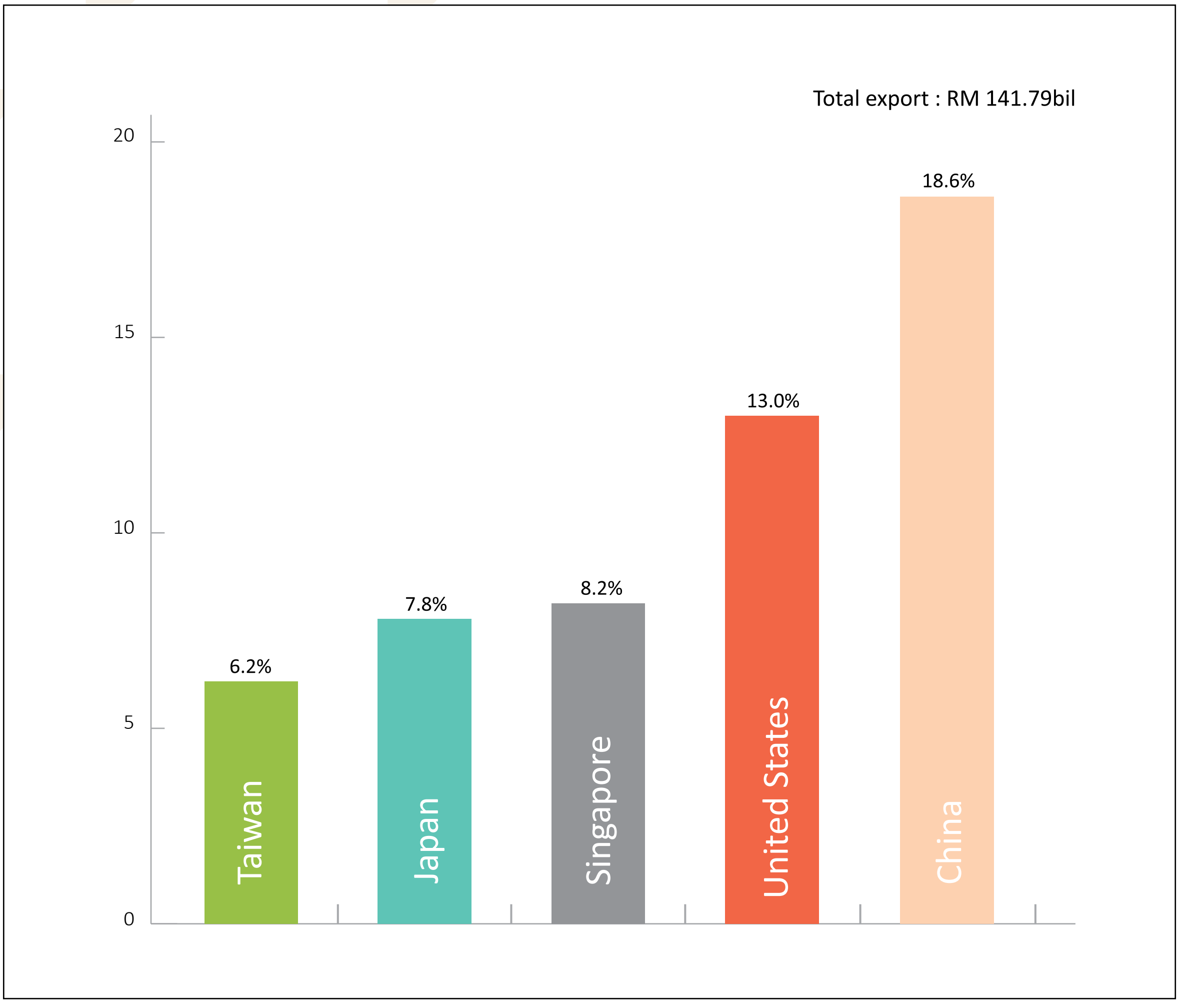
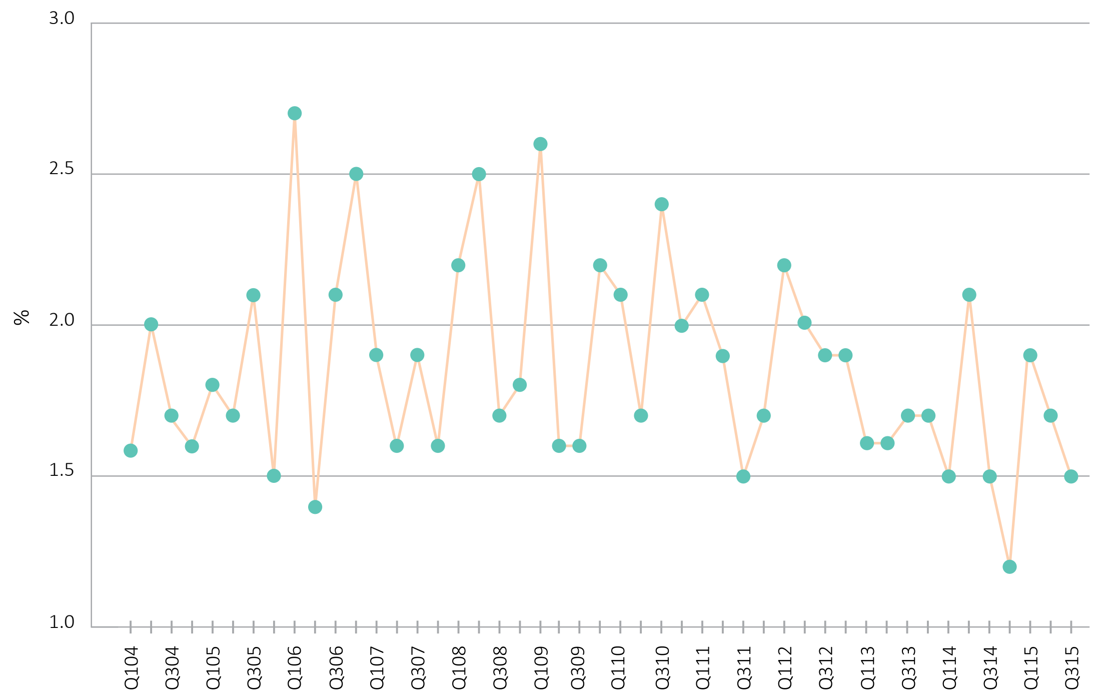


Figure 1.24
Major import countries to Penang, Jan-Nov 2014

Penang's tourism industry is projected to benefit from the Ringgit's depreciation. Flight tickets, food and accommodations are now relatively cheaper. On top of the cheaper Ringgit, a larger pool of tourist arrivals are estimated to increase further in 2015 due to the Visit Penang Year 2015. This would generate higher tourism revenue for local traders and city council. Meanwhile, Penang's medical tourism revenue is also predicted to remain steady as medical tourists continue to come to Penang to seek for medical treatment.

Penang achieved full employment with a historically low unemployment rate in Q4 2014, and remained below 2% for the first three quarters of 2015. Penang's labour force participation rate of 70.6% hit a new record high in the last quarter of 2014. The remaining 29.4% of the population aged 15-64 consists of students, housewives and discouraged workers. Out of a total labour force of 829,300, 98.8% of them are employed – an increase of 4.1% on year-on-year basis (y-o-y) in the fourth quarter of 2014. The percentage of unemployed people dropped drastically by 29.2% y-o-y in the fourth quarter of 2014. Penang's historic low unemployment rate of 1.2% (Figure 1.25) indicates that employment conditions in Penang are better than that in OECD countries, which have an 8.1% unemployment rate. This trend has persisted with Penang's unemployment rate remaining below 2% throughout the first three quarters of 2015. Therefore, Penang's labour market is estimated to remain at full employment position, with an unemployment rate of not more than 4%.



Source: Labour Force Survey, Department of Statistics Malaysia.

Figure 1.25: Penang's unemployment rate, Q1 2004-Q3 2015

The services sector continued to show resilience in Penang's employment market. This sector makes up the largest proportion of Penang's total workforce. In the first quarter of 2015, the share of employed persons in this sector decreased marginally to 61.0% from 61.4% in the previous quarter (Figure 1.26). Of the services sub-sectors, wholesale and retail trade was recorded to have the largest proportion of the workforce (15.9%), followed by accommodation, and food and beverages services (9.9%) (Table 1.3). In Q4 2014, we also see a rise in the share of employed persons for education sector, making up 7.1% of the Penang workforce – compared to 5.2%-5.5% in the first three quarters of 2014 (Table 1.3), although its share has declined to 5.6% of employed persons in the first quarter of 2015.

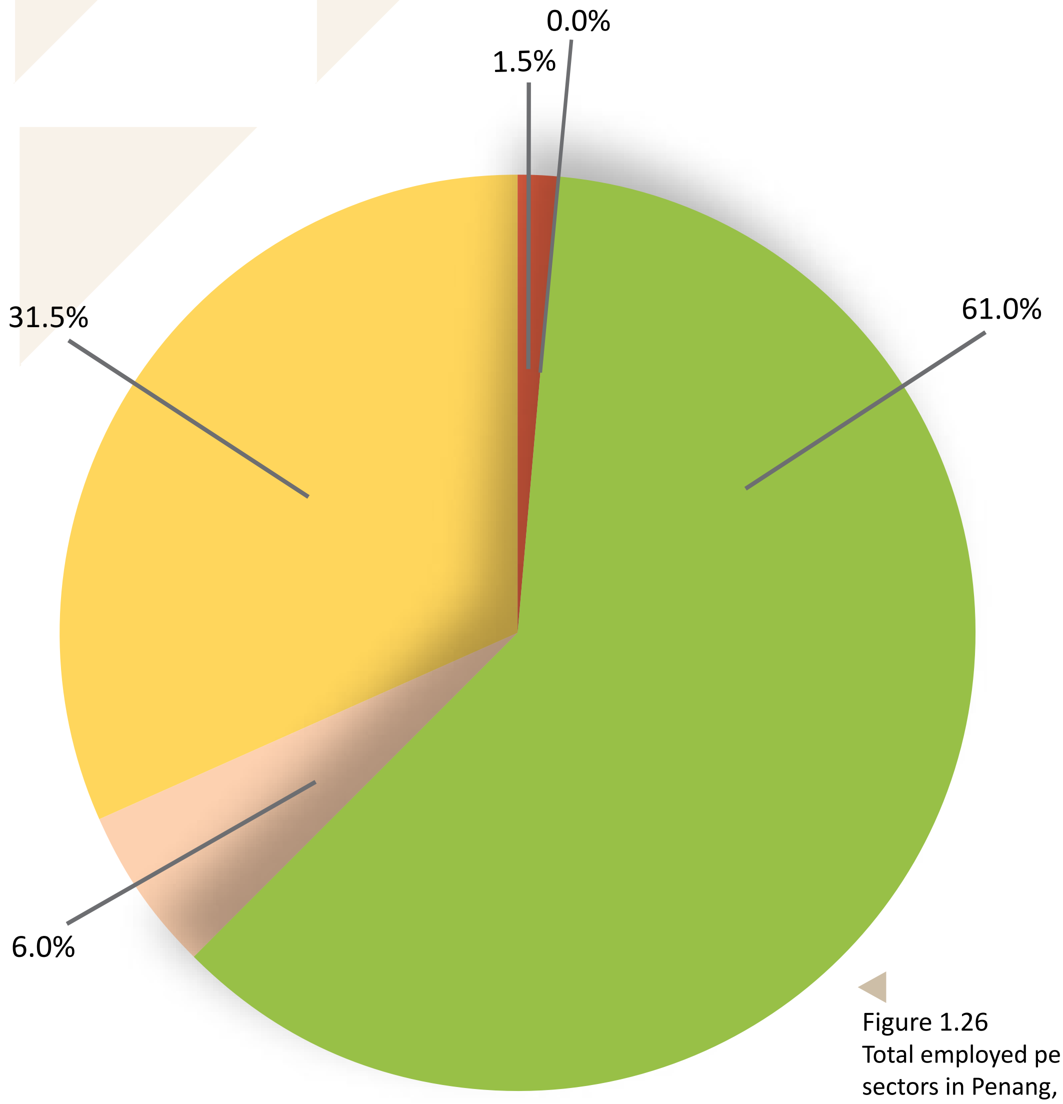


Figure 1.26
Total employed persons by sectors in Penang, Q1 2015

Source: Labour Force Survey, Department of Statistics Malaysia.

Total employed persons: 803,300

- 0%, Mining and Quarrying
- 61.0%, Services
- 6.0%, Construction
- 1.5%, Agriculture, Forestry and Fishing
- 31.5%, Manufacturing

Increasing the number of highly skilled workforce remains as the top agenda in human capital development of the state. The category of high-skill occupations includes managers, professionals, and technicians and associate professionals, and it contributed only 29.1% of Penang's total employment in the first quarter of 2015 compared to 48.9% for the same period in Singapore. To turn Penang into a high income economy, the state government should therefore intensify its establishment of professional, scientific and technical firms to attract larger pool of human capital in Penang. The state government wishes to create an ecosystem to retain talents in this industry, which include accountancy, law etc. In April 2015, the state government initiated the Penang Future Foundation scholarship worth RM20 million from 2015-2016 with RM10 million awarded each year to lure and award outstanding students to work at any firm in Penang after their studies, in an effort to address persistent labour shortages and skill gaps.

Services sub-industry	Q114	Q214	Q314	Q414	Q115
Electricity, gas, steam and air conditioning supply	0.2	0.3	0.2	0.2	0.1
Water supply; sewerage, waste management and remediation activities	1.0	0.8	0.5	0.6	0.6
Wholesale and retail trade; repair of motor vehicles and motorcycles	16.8	17.1	13.8	15.8	15.9
Transportation and storage	4.2	4.3	4.8	4.6	4.7
Accommodation and food and beverage service activities	11.3	9.7	12.2	11.3	9.9
Information and communication	0.4	0.7	1.2	0.9	0.9
Financial and insurance/takaful activities	1.6	2.4	2.5	2.3	2.8
Real estate activities	0.8	0.7	0.9	0.6	0.4
Professional, scientific and technical activities	2.4	3.1	2.1	2.0	3.1
Administrative and support service activities	4.6	2.9	5.7	4.4	4.0
Public administration and defence; compulsory social security	4.7	3.9	2.8	3.0	4.1
Education	5.4	5.5	5.2	7.1	5.6
Human health and social work activities	3.3	4.8	5.0	4.2	5.1
Arts, entertainment and recreation	0.8	0.5	0.3	0.8	0.8
Other service activities	2.0	1.5	1.9	2.0	1.3
Activities of households as employers	0.3	0.6	1.4	1.6	1.4
Total	**59.8**	**58.8**	**60.5**	**61.4**	**60.7**

Source: Labour Force Survey, Department of Statistics Malaysia.

▲ Table 1.3 : Share of employed persons in services sub-industries in Penang, Q1 2014 – Q1 2015

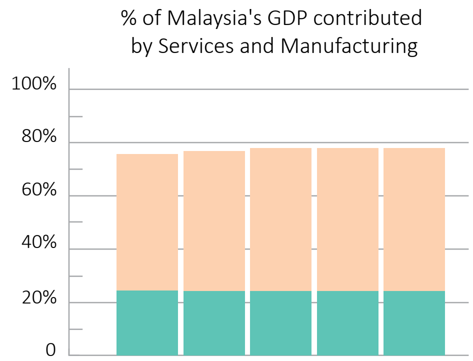
MANUFACTURING SECTOR

Penang remains an industrial hub of paramount importance to Malaysia. A continually robust performance by Penang's manufacturing sector bodes well for Malaysia's future.

Aerial view of Bayan Lepas Industrial Zone overlooking the Jambatan Sultan Abdul Halim Muadzam Shah (Penang 2nd Bridge).

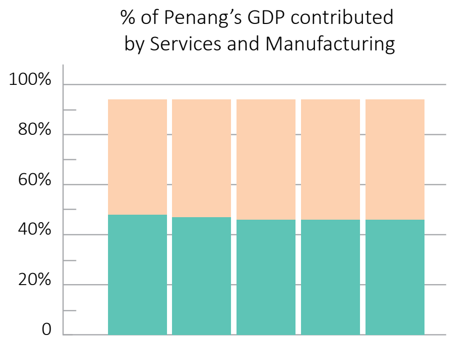
Manufacturing is a key pillar of Penang's economy.

Though Penang makes up only 5% of Malaysia's population, its GDP accounts for 7% of Malaysia's GDP between 2009 and 2014. Penang's strong economic performance is spearheaded by a resilient manufacturing sector. Penang's manufacturing sector contributes an equal proportion as the services sector to its total GDP, a trend that is expected to continue in 2015. On average, from 2010 to 2014, manufacturing made up about 47% of Penang's GDP, compared to about 23% of Malaysia's GDP (Figure 2.1). This relative strength in manufacturing can be traced to the robustness of both the Bayan Lepas Free Industrial Zone as well as the newly developed hub in Batu Kawan.



	2010	2011	2012	2013	2014
Services	51%	52%	53%	53%	53%
Manufacturing	23%	23%	23%	23%	23%

Source: 11th Malaysia Plan.

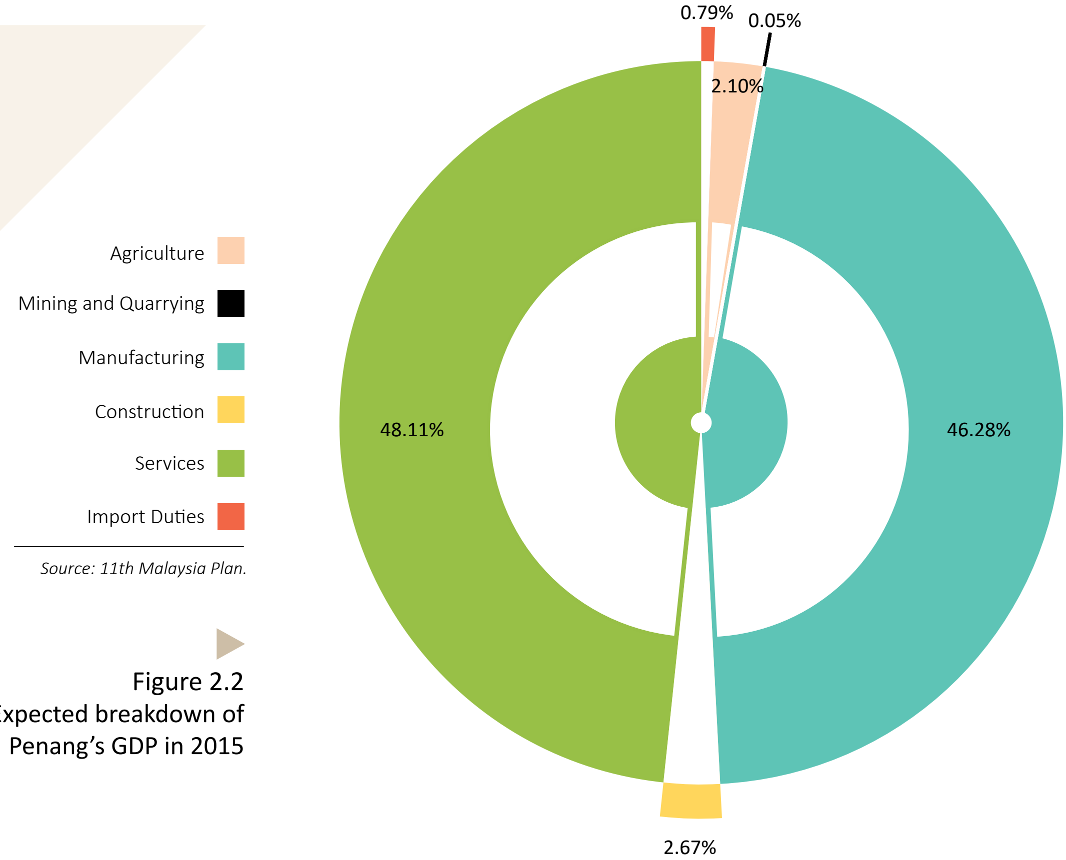


	2010	2011	2012	2013	2014
Services	47%	47%	48%	48%	48%
Manufacturing	48%	47%	46%	46%	46%

Source: 11th Malaysia Plan.

(Top & Below)
Figure 2.1
The manufacturing sector's contribution to Malaysia's and Penang's GDP

Keep Penang's markets free and attractive to investors. An inference that can be drawn from targets in the Eleventh Malaysia Plan report is that manufacturing is targeted as a key area for growth in Penang, with the manufacturing sector targeted to grow steadily by 6.5% annually between 2015 and 2020. Penang's manufacturing sector is predicted to contribute to 47% of Penang's GDP come 2020. Judging by recent trends, Penang should hit this mark. The total capital investment into Penang's manufacturing sector in 2014 was RM8.16 billion, of which 62.6% was foreign investment. A robust capital base is expected to continue to drive growth in Penang, especially in E&E products and the machinery and equipment industries, which account for 58.9% and 16.7% of the total investment in 2014 respectively. In line with this positive trend, manufacturing is estimated to remain an important contributor to Penang's GDP in 2015, as shown in Figure 2.2.



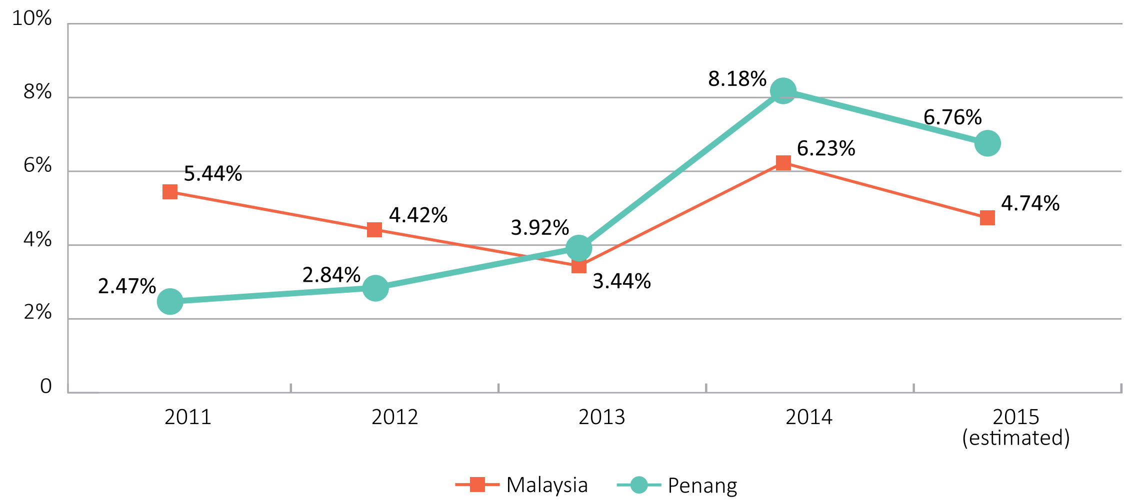
Source: 11th Malaysia Plan.

Figure 2.2
Expected breakdown of Penang's GDP in 2015

Growth in Penang's manufacturing sector is estimated to moderate. According to a forecast made by a market research firm, Gartner, growth in semiconductor revenue is projected to decline from 4% to 2.2% in 2015, citing weak application outlooks. AMD and Intel have both cut their quarterly expectations at the beginning of the year[11]. Given the dominance of the E&E industry in Penang's manufacturing sector, it is reasonable to estimate a slowdown of the sector in 2015. Nevertheless, comparing Penang's manufacturing sector vs. Malaysia's (Figure 2.3), growth in Penang's manufacturing sector took off in 2013, and is estimated to exceed the national growth by more than two percentage points.

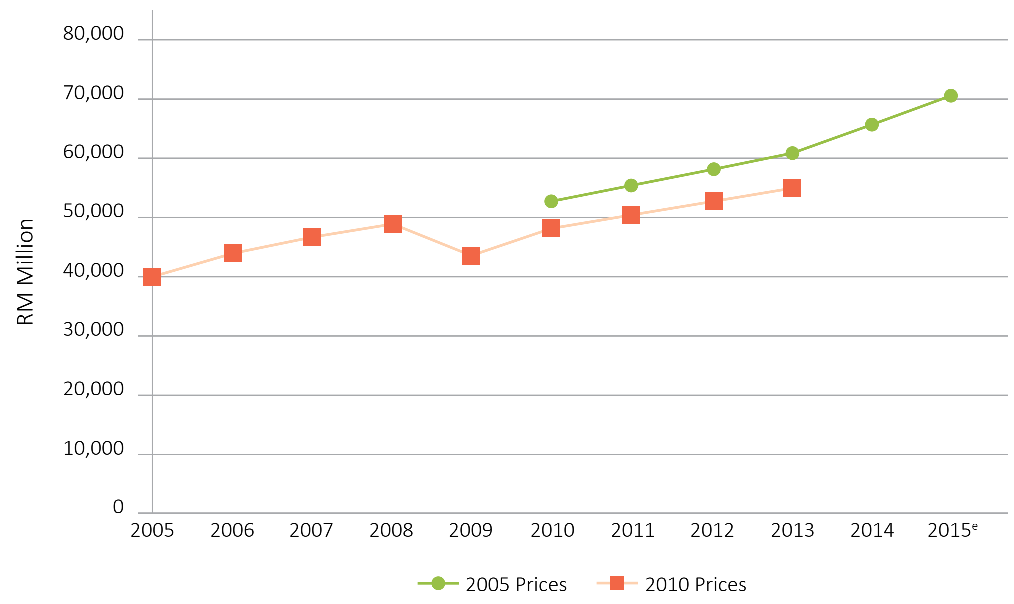
Penang's economic performance is linked to the US. The Penang manufacturing sector's outperformance of the rest of the nation is due to the dependency of local manufacturing firms on raw materials imported from the US as well as the ubiquity of the dollar in trading transactions. Therefore, part of the reason manufacturing in Penang recovered from a mini-slump and consequently picked up in 2014 was that the US economy, and hence US-based companies such as Seagate began to recover following the worst financial crisis in a decade. The close link of Penang's economy with the US's can be seen from Penang's GDP over time. Figure 2.4 shows that there was a sharp fall in Penang's GDP in 2009 following the 2007-08 US financial crisis.

[11] Gartner Curtails 2015 Semiconductor Sales Forecast Due To Application Weakness, CRN, 9 July 2015, http://www.crn.com/news/components-peripherals/300077391/gartner-curtails-2015-semiconductor-sales-forecast-due-to-application-weakness.htm?itc=refresh



Source: 11th Malaysia Plan.

Figure 2.3: Growth in Malaysian manufacturing vs growth in Penang manufacturing



Source: Department of Statistics Malaysia.
Note: e estimate

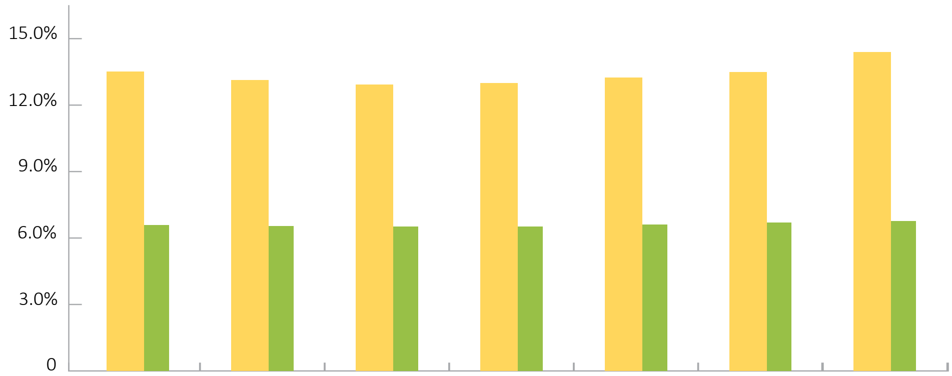
Figure 2.4: Penang state GDP from 2005-2015e (RM million), in 2005 prices and 2010 prices

Depreciation of the Ringgit against the US dollar will affect manufacturing exports favourably. Many manufacturing firms in Penang may see their costs rise due to the Ringgit falling to a 10-year low against the dollar[12]. Conversely, Penang's exports will become more competitive as they become relatively cheaper in foreign currencies. When examining Penang's main import and export centres (Figure 2.5), manufacturing firms which depend on imports but do not export their products will likely be hit by the weakening Ringgit. Therefore, these firms should pre-emptively diversify their target markets to capitalise on the increased competitiveness of their products in the global market.

[12] http://www.bloombergtv.my/video/weak-ringgit-hurt-manufacturers/

Penang is the second most important industrial hub in Malaysia. Penang has consistently punched above its weight, making up 7% of Malaysia's GDP despite having a population only 5% that of Malaysia's. When compared to the other states, Penang is the fourth biggest contributor to national income after Selangor, Sarawak and Johor. Even more remarkable is the performance of its manufacturing sector, which accounts for roughly 13% of income from Malaysia's manufacturing sector. As shown in Figure 2.6, there has been little fluctuation in this figure since 2013, an indicator of the robustness of Penang's economic performance.

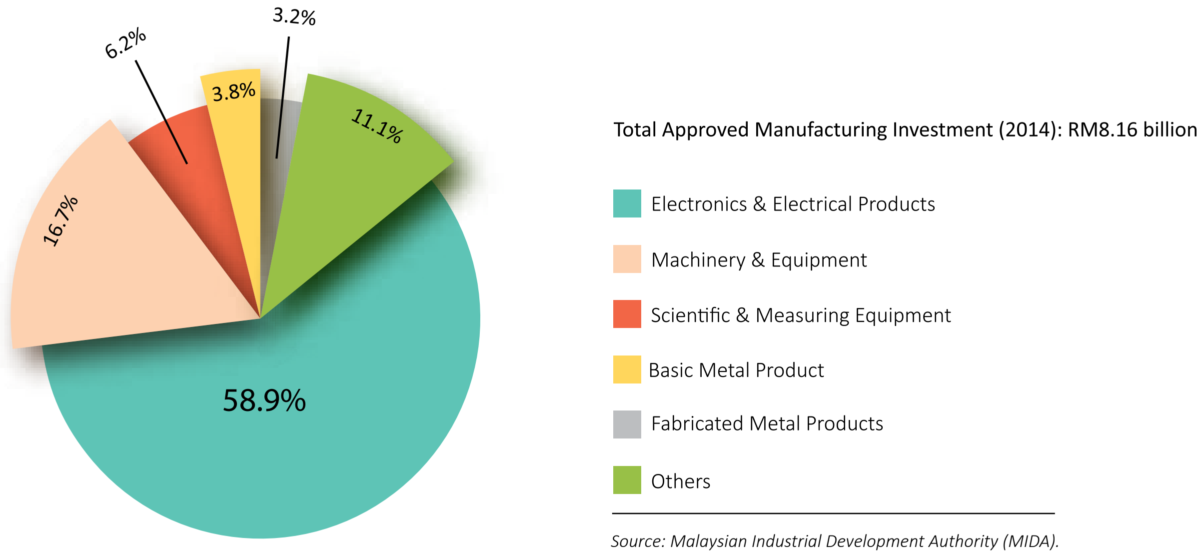
Penang attracts a large portion of foreign investment into the manufacturing sector. The approved manufacturing investment in Penang escalated by more than 100% to RM8.2bil in 2014, compared to RM3.9bil in 2013 (see Chapter 1: Figure 1.19). Of this, about 63% was contributed by foreign companies, the remaining 37% coming from domestic investors. In 2014, Penang accounted for 12.9% of Malaysia's foreign investment in manufacturing, and 11.4% of the total proposed capital investment in manufacturing. These figures were amplified in the first half of 2015, with Penang attracting 19.6% of the total foreign investment, albeit with much less domestic investment.



	2010	2011	2012	2013	2014	2015 (estimated)	2020 (targeted)
% of Manufacturing	13.51%	13.13%	12.93%	12.99%	13.23%	13.48%	14.40%
of GDP	6.58%	6.54%	6.51%	6.52%	6.61%	6.69%	6.77%

Source: 11th Malaysia Plan.

Figure 2.5
Penang's contribution to GDP (% of Malaysia GDP) vs Penang's contribution to manufacturing (% of Malaysia manufacturing output)



Source: Malaysian Industrial Development Authority (MIDA).

Figure 2.6
Major approved manufacturing investment by industry in Penang, 2014

Penang remains an attractive place for MNCs to invest in new manufacturing activities or expand existing high value-adding manufacturing operations. Intel is one such example: with an initial investment of US$ 1.6mil in 1972, its investments in Penang have intensified to US$ 4bil as of 2014. With the availability of highly-skilled human capital and sound infrastructure, Intel has built one of the largest silicon design centres in Penang and has transformed its operations from a traditional manufacturer of chipsets, microprocessors and motherboards to design and development as well as global shared services. The Internet of Things (IoT) – the integration of computing into devices and connecting them to the Internet through cloud data – has emerged to be the main focus of Intel Penang now; IoT significantly contributes to global digital evolution, turning Penang into a "3Is" economy – International, Intelligent and Innovative.

An enhanced innovation ecosystem is crucial to increase the efficiency and productivity of the manufacturing sector. As underlined in the Eleventh Malaysia Plan 2016-2020, innovation raises productivity through new or improved processes, technologies, and business models. It creates additional sources of revenue through differentiated products and services. Penang's manufacturing activities have been moving up the value chain amidst the evolving global industrial landscape.

In terms of industry, E&E remains the backbone of Penang's investment frontier, accounting for nearly 60% of Penang's total capital investment in 2014 (Figure 2.6)[13]. Out of RM4.8 billion of capital investments generated by the E&E industry, about 87% is recorded as investment by foreign companies in 2014 (Table 2.1). As the third largest contributor to Malaysia's total approved manufacturing investment, it is evident that Penang's E&E industry is a leading sector in Malaysia. This fact corroborates with the viewpoint of Chu Jenn Weng, the founder, president and CEO of ViTrox Corporation – a locally grown vision inspection system company – whereby Penang's ready-made ecosystem has continuously helped ViTrox hire good quality engineers. Chu also opined that it is a natural choice for E&E graduates to search for relatively good engineering jobs in Penang.

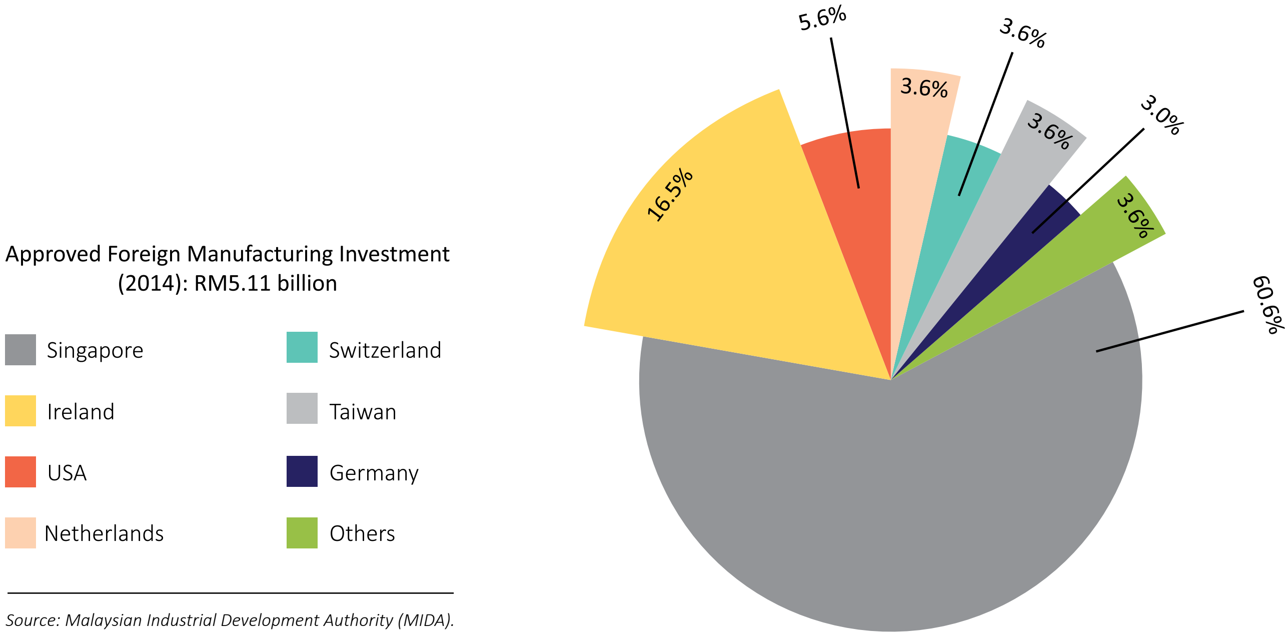
Industry	Number	Employment	Domestic		Foreign		Total	
			RM mil	Share (%)	RM mil	Share (%)	RM mil	Share (%)
Food manufacturing	9.0	734.0	123.8	4.1	49.0	1.0	172.7	2.1
Beverages & tobacco	1.0	90.0	6.0	0.2	0.0	0.0	6.0	0.1
Wood & wood products	5.0	54.0	15.9	0.5	8.9	0.2	24.9	0.3
Furniture & fixtures	2.0	33.0	5.3	0.2	0.0	0.0	5.3	0.1
Paper, printing & publishing	2.0	247.0	9.1	0.3	0.7	0.0	9.8	0.1
Chemical & chemical products	8.0	500.0	48.0	1.6	102.8	2.0	150.8	1.8
Petroleum products (including petrochemicals)	2.0	83.0	90.1	3.0	97.5	1.9	187.6	2.3
Rubber products	1.0	34.0	1.6	0.1	0.0	0.0	1.6	0.0
Plastic products	10.0	1,060.0	164.1	5.4	0.0	0.0	164.1	2.0
Non-metallic mineral products	1.0	57.0	0.0	0.0	29.5	0.6	29.5	0.4
Basic metal products	5.0	568.0	288.4	9.5	23.4	0.5	311.8	3.8
Fabricated metal products	32.0	941.0	251.1	8.2	13.8	0.3	264.9	3.2
Machinery & equipment	29.0	1,791.0	1,301.9	42.7	63.9	1.2	1,365.8	16.7
Electronics & electrical products	34.0	7,557.0	337.1	11.1	4,470.6	87.4	4,807.6	58.9
Transport equipment	6.0	331.0	125.5	4.1	18.3	0.4	143.8	1.8
Scientific & measuring equipment	18.0	3,505.0	272.5	8.9	235.3	4.6	507.8	6.2
Miscellaneous	4.0	311.0	8.4	0.3	0.0	0.0	8.4	0.1
Total	169	17,896	3,048.8	100	5,113.6	100	8,162.4	100

Source: Malaysian Industrial Development Authority (MIDA).

Table 2.1
Approved manufacturing investments by industry in Penang, 2014

[13] E&E products include consumer electronics (i.e. digital home theatre system, digital cameras, LED television receivers etc.), industrial electronics (i.e. computer peripherals, telecommunication products etc.), and electronics components (i.e. semiconductor devices, printed circuits etc.) and electrical (i.e. lightings, solar related products, household appliances etc.).

Approved Foreign Manufacturing Investment (2014): RM5.11 billion



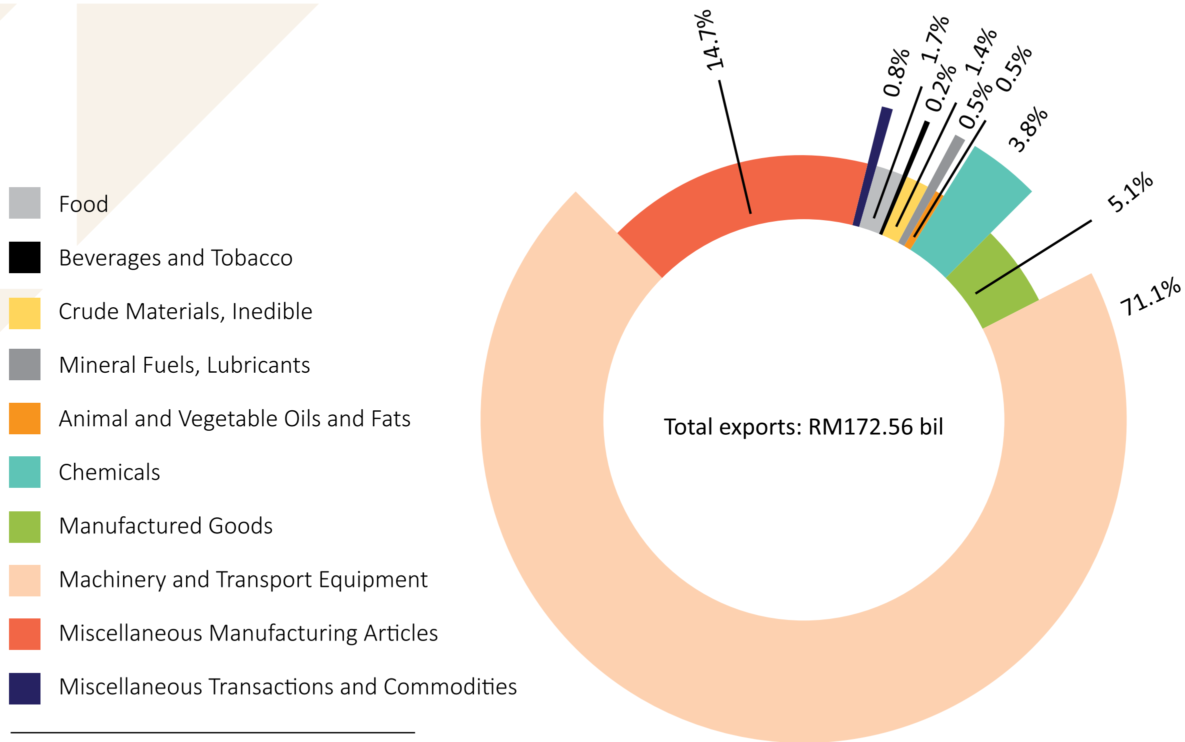
Source: Malaysian Industrial Development Authority (MIDA).

Figure 2.7
Major approved manufacturing investment by country in Penang, 2014

Out of RM5.1 billion worth of approved foreign investment created within the state, about 61% of them came from Singapore, followed by Ireland (16.5%) and the US (5.6%) (Figure 2.7).

Singapore Aerospace Manufacturing Pte. Ltd. (SAM) invested RM200 million to build a plant at the Penang Science Park to manufacture precision machining for aerospace and front-end semiconductor equipment. SAM plans to expand further for its second and third phases over the next five years to manufacture aerospace-machined parts. Its employment will double from its current 700 headcount. This reinforces the close trading links between Penang and Singapore in the coming years.[14]

[14] "Penang Investment Updates", InvestPenang, http://www.investpenang.gov.my/files/investment-updates/4/penang_investment_updates_first_quarter_2014.1418980764.pdf



Source: Department of Statistics Malaysia.

Figure 2.8
Breakdown of Penang exports, 2014

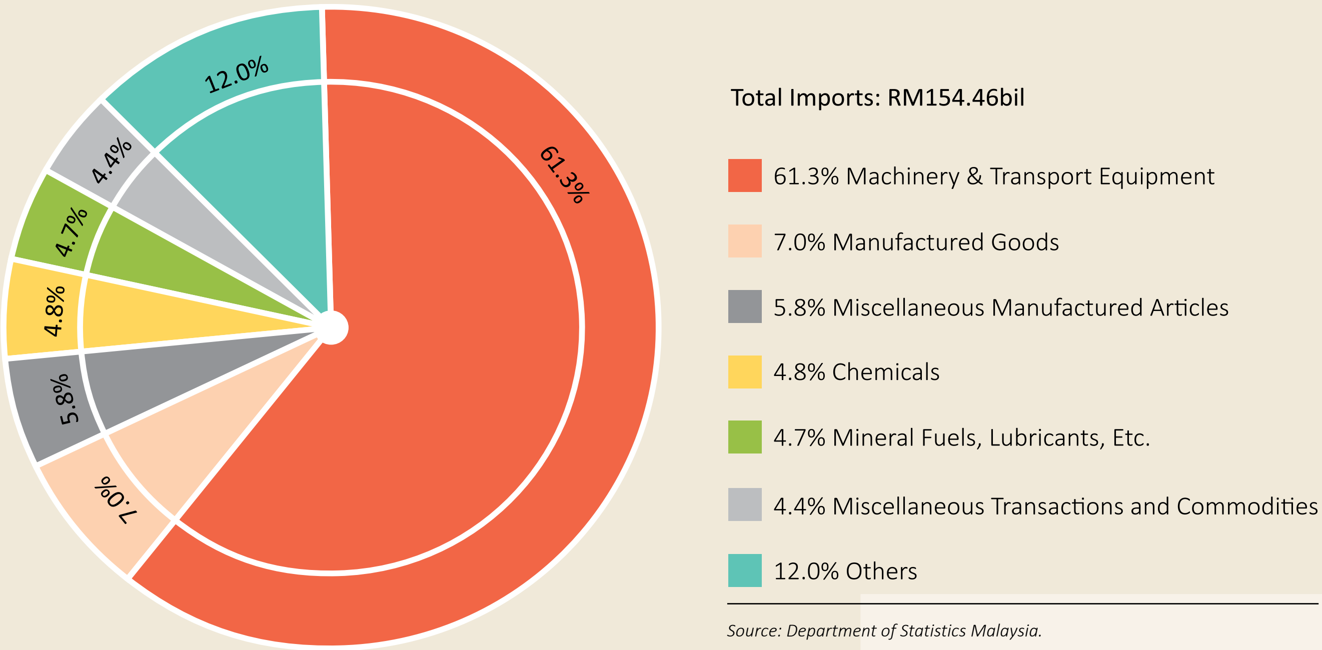
Additionally, Penang may see larger manufacturing investment from Singapore in the near future. Economic Development Innovations Singapore Pte. Ltd. (EDIS), Temasek Holdings (Private) Ltd. and the Penang Development Corporation (PDC) have signed a Memorandum of Understanding (MoU) in May 2014 to develop the Penang International Technology Park (PITP) and the Business Process Outsourcing Prime (BPO Prime), with a gross development value of RM11.3 billion over the following years.

Penang will continue to attract investments from abroad in 2015. According to Invest Penang, four Chinese MNCs listed in the US will invest RM5 billion in electronic manufacturing activities in Penang[15]. Given the availability of human talent, world-class supply chain and excellent infrastructure, Penang anticipates a larger investment inflow made into the renewable energy, electronics and Information Communication Technology (ICT) and life sciences industries.

[15] "Penang sees RM5bil investments from 4 China MNCs listed in US", InvestPenang, 29 January 2015, http://www.investpenang.gov.my/news-detail.php?pid=20&group=2015&sub_group=January

Penang's external demand in electronics is estimated to expand at a healthy level. This is also supported by inference from the Q1 2015 Malaysian Institute of Economic Research's (MIER) Business Conditions Survey where the manufacturing sector exhibited an increase in domestic orders, export orders and production. Product-wise, machinery and transport equipment remained the largest product category for Penang exports. Out of RM172.6bil of exports, this category contributed about 71% of total exports in 2014 (Figure 2.8) and have grown at 8.6% in 2014 compared to 2013. Meanwhile, miscellaneous manufactured articles and manufactured goods accounted for 14.7% and 5.1% of Penang exports respectively (Figure 2.9).

The structure of exported and imported products also suggests that over 90% of Penang's commodities being exported comprise of E&E-related products, including electrical machinery, apparatus and appliances; professional and scientific instrument; and telecommunication, sound recording and apparatus. Likewise, Penang imported these products the most (Figure 2.9).



Source: Department of Statistics Malaysia.

Figure 2.9
Breakdown of Penang imports, 2014

Achieving healthy and sustainable capital investment requires an adequately skilled labour force. Penang's manufacturing sector employs about 28.1% of Penang's workforce in the first quarter of 2014 (Figure 2.10). A number of the existing manufacturing firms are gradually diversifying its traditional manufacturing operations to high value-added activities such as design and R&D. Therefore, we see a comparatively smaller share of labour working in the manufacturing sector. In April 2015, the state government initiated the Penang Future Foundation scholarship – worth RM20mil from 2015-2016 with RM10mil awarded each year – to lure more talents to join Penang's labour force. Moreover, the state government is working at diversifying the skills of employees via vocational training. Another possibility may be to incentivise employees to learn "modern" skills such as computer coding, app designing, software engineering and data mining.

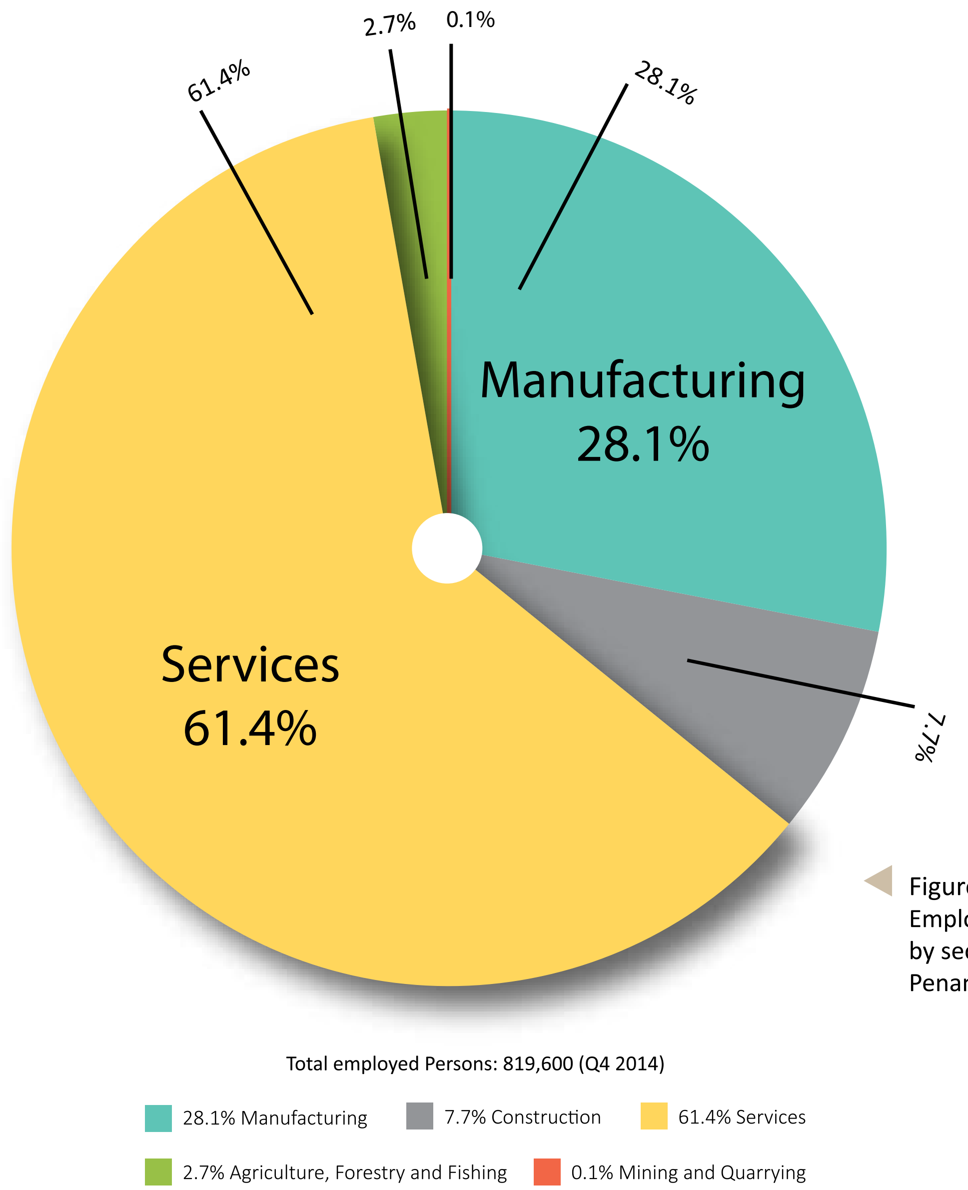
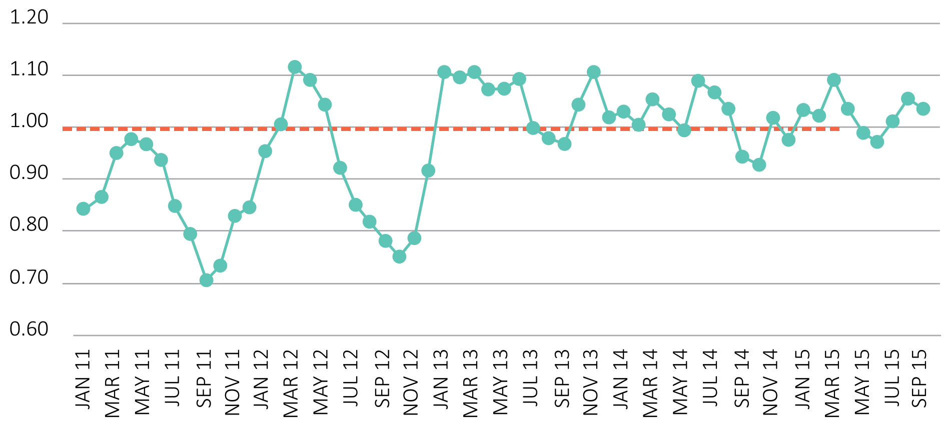


Figure 2.10
Employed persons by sectors in Penang, Q4 2014

Source: Labour Force Survey, Department of Statistics Malaysia.



Source: SEMI, June 2015.
Note: A ratio of above 1 signifies strong demand, while a ratio of below 1 signifies weak demand.

Figure 2.11
Global book-to-bill ratio

Penang should aim to be at the forefront of the Internet of Things (IoT). The IoT involves embedding miniature computers in objects and connecting them to the internet using wireless technology. Cisco, a technology company, estimates that 50 billion connected devices will be in circulation by the end of the decade, up from 11 billion in 2013[16]. To be in line with the goals of becoming a technologically advanced city and achieving high rates of tech literacy and internet penetration, manufacturing in Penang needs to keep up with the trend of increasingly widespread use of IoT in industry, especially in the E&E, medical devices, and machinery and equipment industries. These industries in particular have huge potential to lead Penang's march into the IoT.

This is particularly important for Penang given the trend of shifting towards the IoT in the global semiconductor industry, coupled with the fact that global demand for semiconductor gadgets has grown steadily within the past decade. Figure 2.11 shows the global book-to-bill ratio for North American-based manufacturers of semiconductor equipment, as reported by SEMI. Since 2013, the book-to-bill ratio has remained above 1 for the most part, signifying strong demand. Even though this ratio was most recently reported to be 0.99 in May 2015, demand is expected to pick up again and match the demand seen in the first quarter of 2015.

The expansion work of B Braun factory which aimed to be completed by year 2017.

[16] "The internet of things (to be hacked)", The Economist, 12 July 2014, http://www.economist.com/news/leaders/21606829-hooking-up-gadgets-web-promises-huge-benefits-security-must-not-be

TOURISM SECTOR

Steady growth with promising tourism festivals for Visit Penang Year 2015

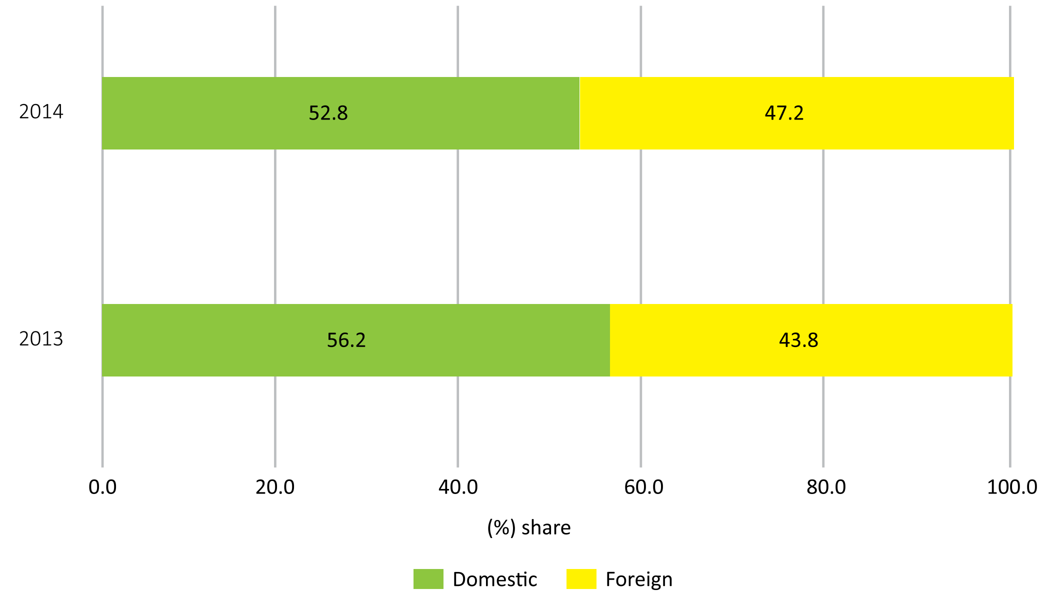
Dawn at clan jetty, another famous spot for photo-shooting in Penang.

Penang’s tourism sector kept its momentum in 2014, supported by the increased number of international tourists.

Penang’s total hotel guests[17] increased by about 46% to 6.85 million in 2014 compared to a total of 4.70 million hotel guests in 2013 (Figure 3.1). While 47.2% were foreign guests and the remaining 52.8% accounted for domestic guests in 2014, foreign hotel guests grew markedly by about 57% in 2014 compared to that of 2013. This suggests that Penang increasingly received attention from visitors[18] around the world in 2014. This is an encouraging sign for the state where a variety of festivals or events have continued to attract both domestic and international tourists every year.

[17] Due to the unavailability of GDP contribution in tourism sector at state level, the number of hotel guests are used to measure the economic performance of tourism sector in Penang.

[18] A visitor (domestic, inbound or outbound) is classified as a tourist (or overnight visitor), if his/her trip includes an overnight stay (UNWTO, 2015).



Source: Tourism Malaysia

Figure 3.1
Share of hotel guests by domestic and foreign tourists in Penang, 2013 and 2014

Along with the rise in the number of domestic and foreign tourists, Penang saw an increase in various types of hotels over the past two years. The Penang Geographical Information System's (PEGIS) statistics shows that the total number of hotels surged by nearly 40% to 235 hotels in 2014 from 168 hotels in 2012 (Table 3.2)[19]. Of these, budget hotels made up the largest share of total non-star and star rating hotels, accounting for about 59% in 2014 with a growth rate of 41.8% compared to that of in 2012. The number of guest houses swelled significantly by more than three-fold, concentrated primarily at the Northeast district of Penang Island. Likewise, Penang also recorded an escalation in the number of all-star rating hotels, particularly for three-star and four-star hotels (Table 3.2). However, a number of non-star rating hotels ended their businesses between 2012 and 2014. These include motels, clubhouses, hostels, non-rated hotels and service apartments (Table 3.1).

[19] Penang has a number of unlicensed hotels which are not reflected in the PEGIS's statistics.

Following the arrivals of 4,000 Chinese nationals from 4-10 July 2015 sponsored by Perfect (China) Co Ltd, Penang is predicted to see more visitors of this type in the future. In another findings, the Penang Tourist Survey 2014 also showed that Chinese nationals tended to travel in a group (Box 3.1). Therefore, more hotels offering more rooms are crucial to cater to the bulk of tourist arrivals.

Table 3.1
Number of non-star rating hotels by district in Penang, 2012 and 2014

District	Motel		Club House		Guest House		Hostel		Not Rated		Service Apartment		Budget Hotel	
	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014
Northeast	5	2	0	0	7	23	5	2	4	1	8	2	70	88
Southwest	0	0	0	0	0	2	0	0	1	0	0	1	0	3
Central Seberang Perai	2	0	0	0	0	0	0	0	0	0	0	0	16	24
North Seberang Perai	0	1	1	0	0	0	0	0	0	0	0	0	11	22
South Seberang Perai	0	0	0	0	0	0	0	0	0	0	0	0	1	2
TOTAL	7	3	1	0	7	25	5	2	5	1	8	3	98	139

Source: Penang Geographical Information System (PEGIS).

Despite the rise in the number of hotel rooms, Penang's hotel continued to enjoy average occupancy rate (AOR) of above 60%, surpassing that of the national AOR from 2010-2014. Figure 3.2 shows that while the supply of hotel rooms has increased since 2010, the occupancy rate of hotel rooms remained resilient in 2014. This trend is estimated to continue upward in 2015 as a result of Visit Penang Year 2015, particularly with the George Town Festival, a series of activities organised to commemorate George Town's listing as a UNESCO World Heritage Site in 2008. According to the Malaysian Association of Hotels

District	Hotel										GRAND TOTAL	
	ONE STAR		TWO STAR		THREE STAR		FOUR STAR		FIVE STAR			
	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014	2012	2014
NORTHEAST	3	4	3	4	6	14	12	21	7	9	130	170
SOUTHWEST	0	0	1	1	0	1	1	2	0	0	3	10
CENTRAL SEBERANG PERAI	0	0	0	1	0	2	0	2	0	0	18	29
NORTH SEBERANG PERAI	0	0	0	1	3	0	1	0	0	0	16	24
SOUTH SEBERANG PERAI	0	0	0	0	0	0	0	0	0	0	1	2
TOTAL	3	4	4	7	9	17	14	25	7	9	168	235

Source: Penang Geographical Information System (PEGIS).

Table 3.2: Number of star rating hotels by district in Penang, 2012 and 2014

Penang Chapter, Penang's hotel average occupancy rated above 65% in all months of 2014 except January and November (Figure 3.3)[20]. It lingered at the rate of 65% steadily from February to October 2014 but leaped in March and December 2014. However, it is interesting to note that Penang's AOR varies considerably across different locations of hotels. City hotels outperformed beach hotels in most months of 2014 except January, February and August. This seems to suggest that Penang's hotels accommodated a diverse array of guests throughout the year. For example, during the Penang Bridge International Marathon in November 2014, city hotels recorded higher occupancy rate of nearly 68% compared to beach hotels, which could be attributed to the close proximity of city hotels to Sultan Abdul Halim Muadzam Shah Bridge (the Second Penang Bridge).

The expanded Penang International Airport caters well to the higher arrivals of international tourists and business travellers. Penang has seen a growing number of international arrivals. Based on Immigration Department statistics, total international arrivals flying via Penang International Airport grew at an annual growth rate of 7% from 2007-2014. In 2014, it increased by 6.9% to about 718,000 visitors from 671,000 visitors recorded in 2013 (Figure 3.4). Due to the lack of data capturing the international arrivals via land and sea, a larger pool of international visitors would be expected if we account for visitors travelling through bridges and ferries. To accommodate more passengers, it is necessary to expand the airport with a second runway by offering wider air connectivity coverage within the Asia region, providing conveniences to travellers around the world. Penang's total international visitors via Penang International Airport is estimated to experience an upward trend in 2015 and 2016 (Figure 3.4).

[20] It is important to note that the AORs produced by Tourism Malaysia are analogous with that of Malaysian Association of Hotels – Penang Chapter. Since the monthly data for AORs is not made publicly available in Tourism Malaysia, the monthly AORs produced by the Malaysian Association of Hotels are used in the report.

Source: Tourism Malaysia.

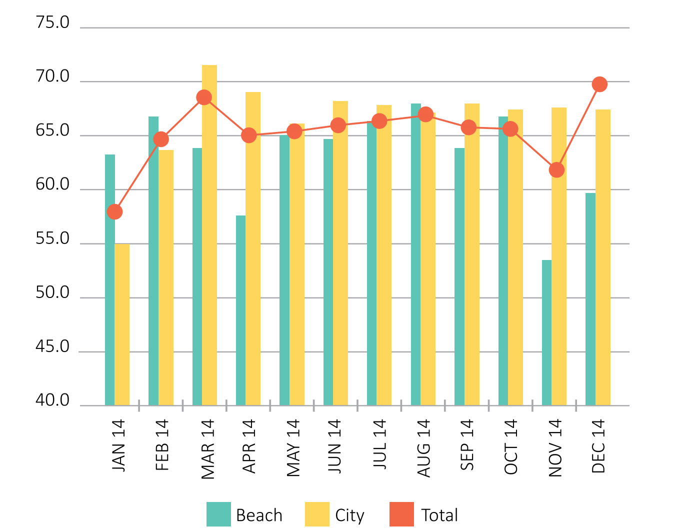
Figure 3.2
Hotel rooms supply and average occupancy rate (AOR) hotels (%), 2008-2014

The pattern of international visitors varies seasonally. With the exception of arrivals from September-December 2013, Penang's foreign visitors exhibited three seasonal growth paths in 2014: first, there was a boom of international visitors from January to April 2014, followed by a smaller wave of growth from May to August 2014, and it swelled steadily from September to December 2014 (Figure 3.4). On a year-on-year basis, international visitors increased in all months except June, September and December 2014 compared to 2013, likely due to the fact that Penang and Malaysia at large were badly hit by haze from forest fires in Sumatra, Indonesia, which usually happens in June except in 2015. Hence, this trend is estimated to improve in June 2015.

The influx of international visitors correlates with regular festivals held in Penang. In August, Penang tends to have steady arrivals from abroad during the month of George Town Festival (GTF) every year. Based on GTF statistics, some 220,000 visitors attended all types of events organised by GTF with an increase of 6.4% in 2014 compared to

Trishaw - a common transportation for tourists around George Town World Heritage Site.

that of 2013[21]. In 2014, more than 90 programmes[22] were included covering all forms of creative activities, which include art, theatre, music, film, dance, talk, food, workshop, photography, cultural and exhibition from Singapore, Thailand, Indonesia, the Philippines, China, Hong Kong, Taiwan, Japan, South Korea, Belgium and the United Kingdom. The rise in foreign arrivals in December 2014 is associated with the Penang Island Jazz Festival (PIJF), another popular two-day event held in early December every year. It has been continuously well received by international visitors. "Started in 2004, the percentage share of attendees from Penang and outside Penang in the first few years were about 50-50", says Paul Augustin, director of PIJF. However, a shift in the composition of attendees occurred in 2008: attendees from outside Penang went up to 60% and local Penang attendance dropped to 40%. The crowd in 2014 was estimated to reach over 5,000; attendees from outside Penang rose to 65%, while local Penang attendees shrank to 35%.



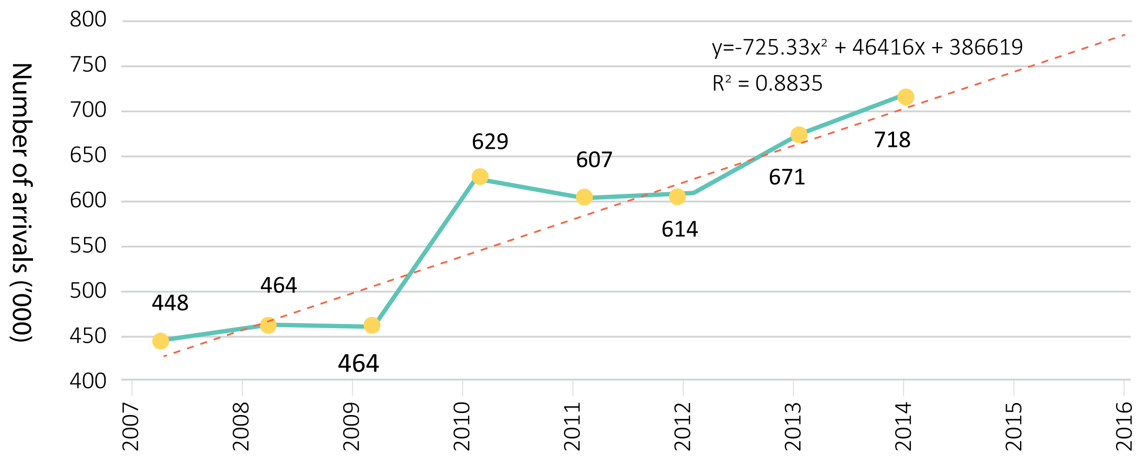
Source: Malaysian Association of Hotels (MAH) Penang Chapter
Note: Data captures the members of MAH only.

Figure 3.3
Average occupancy rate (AOR) for beach and city hotels in Penang, Jan-Dec 2014

[21] George Town Festival features a series of arts and cultural events in the month of August. This includes world-class performances, cross-cultural creative collaborations, experimental art, traditional and contemporary performing arts, as well as local community initiatives.

[22] GTF programmes consist of three types: Type I is fully organised by GTF; Type II is partially funded by GTF; and Type III is wholly independent, but it is publicised by GTF.

Figure 3.4
Total international visitors via Penang International Airport from 2007-2014



Source: Penang Global Tourism (PGT) via Immigration Department.

Penang's three major countries of origins of international visitors are Indonesia, Singapore and China (including those from Hong Kong with China-nationality passports), making up almost 71% of Penang's total international visitors. Out of 1.2 million tourist arrivals, 38.6% were Malaysians and the remaining 61.4% were of foreign origin (Figure 3.5). Indonesians constituted over 40% of total international visitors. These numbers are consistent with statistics provided by the Penang Health Department, whereby nearly 97% of Penang's total health tourists were recorded to be Indonesian from January-September 2014. Meanwhile, the highest growth occurred with visitors of Chinese nationality – about 21% in 2014 compared to 2013, despite the disappearance of flight MH370 in March 2014. The arrival of Chinese tourists is expected to increase substantially in 2015, and is projected to experience a buoyant growth in 2016 with the exemption of visa fee held from February to December 2015 for Chinese tourists.

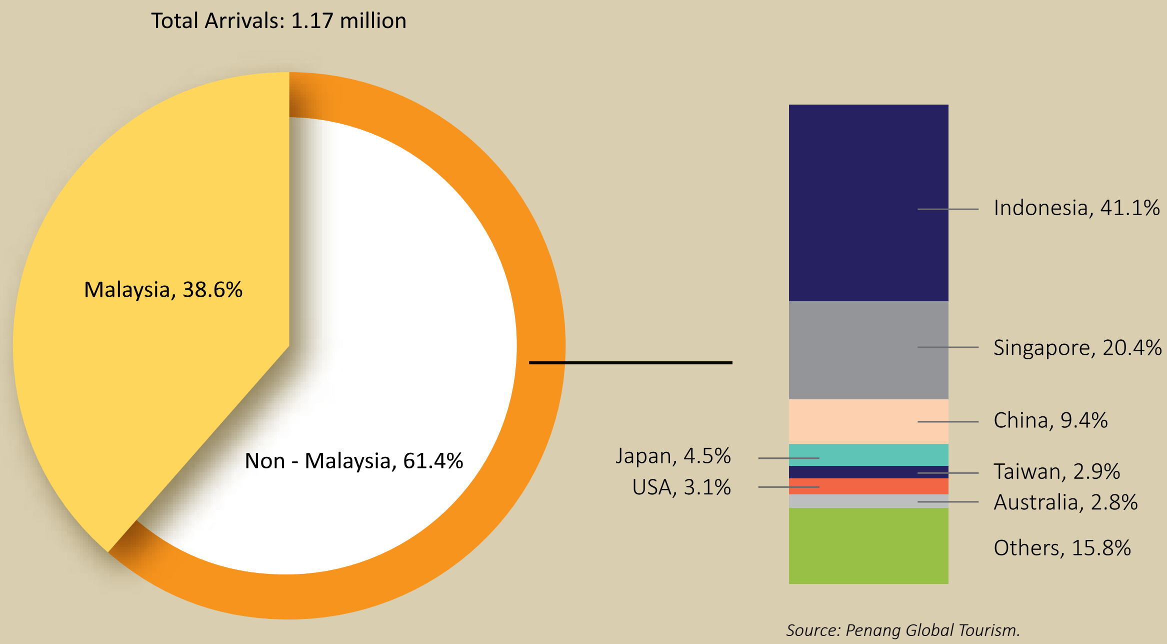


Figure 3.5
Arrivals by country of origin via Penang International Airport, 2014

Source: Penang Global Tourism.
Note: The data captures incoming Malaysians from abroad.

Box 3.1: The Penang Tourists Survey 2014

The Penang Tourists Survey was commissioned by Penang Global Tourism and prepared by Sustainable Tourism Research Cluster, USM (STRC). The report serves to provide an overview of domestic and international tourist profiles in Penang, so that the state government as well as tourism industry players can make better informed decisions.

The survey employed the stratified random sampling technique and was conducted by face-to-face interviews or by self-completion. Surveys were carried out at selected tourist areas in Penang, and gateways to Penang (airport, bus terminals, and ferry jetty). Respondents were asked screening questions before commencing the survey to ensure that respondents were tourists and not transient visitors nor day-trippers.

A total of 4,170 tourists were identified for the survey in 2014. 49.4% were international tourists and 50.6% were domestic tourists. Out of the international tourists, 25.1% originated from Southeast Asia and 18.0% came from Europe. The majority of domestic tourists arrived from Kuala Lumpur (21.9%), Perak (12.6%), Johor (12.6%), and Kedah (12.2%). Visitors from China, Japan, Malaysia and Singapore often travelled in large groups of more than 30 persons. However, the majority of travellers were independent, and unattached to tours (83.4%).

i. Tourist profile

The majority of visitors were aged below 35 years old, with the average age being 31, and the median 29. The dominant group of travellers was students (32.1%). Those working in medium to high-skilled professions made up another one-third of the tourist population. Their average monthly income was RM3,465.80.

Domestic tourists were more likely to be repeat visitors. 67.9% of them were found to be repeat visitors, whereas only 35.8% of international tourists fell into this category.

ii. Travel pattern

The survey found that tourists visited Penang for a variety of reasons, but principally for leisure (57.0%), visiting friends or relatives (10.8%), and education or training-related reasons (10.0%). Top activities considered essential by tourists were experiencing local food, shopping, sightseeing, and visiting historical sites. These findings were consistent across all age groups.

The median length of stay for international tourists was five days, whereas it was three days for domestic tourists. Internet and social media were the most important sources of information for international tourists (31.5%). For domestic tourists, past experiences served as the most frequent source of information (26.1%).

According to the survey, 37.2% of tourists preferred budget hotels or hostels, while 31.5% favoured hotels or resorts. Domestic tourists mainly used personal vehicles and buses to reach Penang, and made use of personal vehicles or public transport within the state. International tourists, however, tended to arrive in Penang via air and travel within Penang with public transportation or rented vehicles. Notably, a significant portion of tourists chose to get around Penang on foot (13.6%). This shows that though limited, there is potential to develop Penang as a walkable city.

iii. Tourist expenditure

The survey also showed that the majority of visitors spent between RM1,001 and RM5,000 while holidaying in Penang (96.7%). International tourists' expenditures were double that of domestic travellers. The median spend of a tourist was RM1,000.00, lower than the mean spend, RM1,718.12.

Medical tourism remains an important sector in Penang's economy. Tourists who visited for health treatments spent on average RM4,247 on each visit. Travelers who visited Penang for shopping reasons tended to spend RM1,194 each time, whereas those who visited for culture and heritage spent roughly RM1,818.

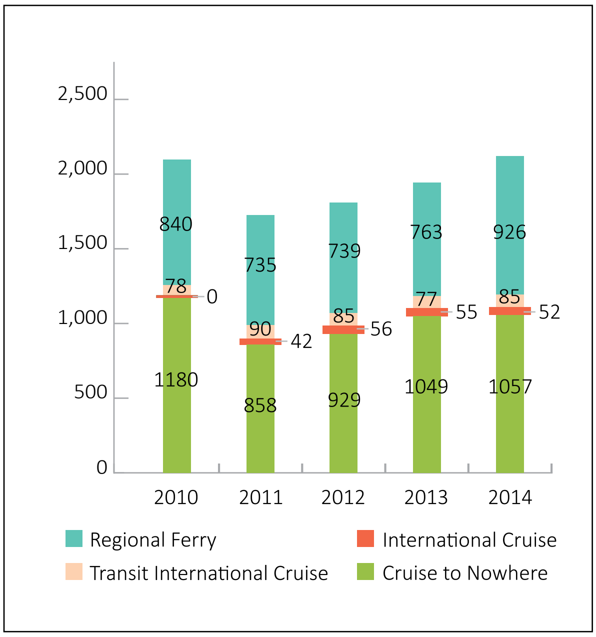
iv. Travel satisfaction

Penang has consistently exceeded the expectations of tourists, especially international visitors. 64% of domestic visitors and 70% of international visitors stated that their visit was above their expectations. It is worth noting, however, that students and young adults were more likely to have higher expectations of their visit to Penang.

The facilities that Penang offers outperformed tourists' expectations in terms of accessibility, accommodation, tourist amenities, and food. However, there was slight dissatisfaction in terms of internet connectivity, public toilets, price of goods, and cleanliness of beaches and eating places.

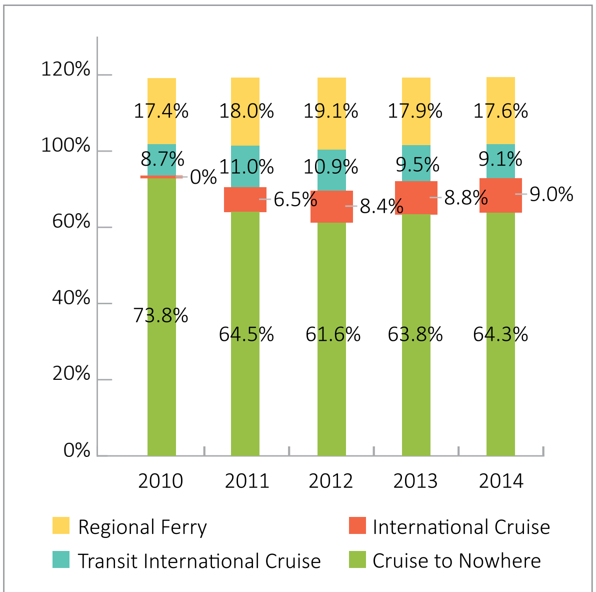
Purpose of Visit	Spend per Visit (RM)	Length of Stay (nights)
Leisure and Recreation	1,605.85	6.45
Visit Friends/Relatives	1,548.32	7.34
Culture and Heritage	1,818.24	6.43
Business/Meeting	2,056.54	11.05
Shopping	1,193.32	3.71
Education/Training	2,156.32	30.43
Health Treatment	4,246.97	5.87
Convention/Conference	2,187.23	5.06
Sporting Event	885.53	3.59
Religion/Pilgrimages	2,187.50	5.33

Figure 3.6
Number of vessels arriving at and departing from Penang, 2010-2014



Source: Penang Global Tourism.

While Penang's Swettenham Pier Cruise Terminal drew an increasing number of vessels, its total number of users fell between 2011 and 2014. As can be seen in Figure 3.6, the total number of vessels arriving at and departing from Penang increased at a rate of 7.1% annually from 1,725 vessels in 2011 to 2,120 vessels in 2014. In particular, nearly half of the total vessels comprised of "cruises to nowhere", followed by regional ferries (43.7%), transit international cruises (4.0%) and international cruises (2.5%) in 2014. These vessels ferried a total of about 1.22 million passengers in 2014. Of these, "cruise to nowhere" made up more than 60% of the total passengers (Figure 3.7). This proportion has held steady for the past five years, indicating stable demand of cruising on the seas. The cruise departs daily from Wednesday till Saturday, and leaves every Sunday for its Penang-Phuket-Krabi trip. Additionally, Penang has been honoured with the arrival of "The Quantum of Seas" – the world's second largest cruise ship – making a short sojourn to Penang before leaving on a 14-night journey from Dubai to Singapore in early June of 2015. With this, Penang's cruise tourism is estimated to continue prospering in 2015, and this trend is expected to grow steadily in 2016.



Source: Penang Global Tourism.

Figure 3.7
Number of port users in Penang, 2010-2014

To sustain the growth of Penang's tourism sector, the state government has been continuously making efforts to promote the unique identity of Penang's local values, including arts and businesses. Coupled with the Visit Penang Year 2015 campaign, the number of foreign tourists is estimated to continue increasing in 2015. The exciting festivals include the Penang Floral Festival in May, the Penang Durian Festival in July, the George Town Festival in August, the Food Festival in October and a horticultural exhibition on various flower species and landscaping designs in December[23]. These festivals should be planned to coincide with the periods during which international cruises arrive in Penang's cruise terminal. Local businesses featuring the values and identity of Penang should be promoted during the arrivals of these types of cruises. Tour guides should be made available to cruise tourists by offering short visits in the vicinity of George Town. This initiative is important to generate revenue among the local businesses, and to promote cultural values and identity of Penang.

View of Port Swettenham beyond the street of Pengkalan Weld.

[23] http://mypenang.gov.my/news.aspx?page=page-2670.pgt

MEDICAL TOURISM

- Medical tourism in Penang has been thriving for the last two decades. With the anticipated reduction in incoming Indonesian patients, healthcare service providers need to work harder to expand their market.

The growing biomedical industry requires a convergence with existing world-class electronics cluster which sparks the special focus in S.T.E.M education

Both the federal and Penang state governments have been actively promoting medical tourism over the years.

Tourist arrivals have been on an upward trend since 2008, reaching a new peak last year with over six million visitors in Penang. Penang's hotel guest numbers also reflect that trend. In fact, international guests exceeded the number of local guests. Penang has the facilities such as hotels and tourist accommodations to host more people for longer periods, catering to a growing number of medical tourists for longer term stay. Medical tourism has become a significant source of income for Penang, under the service sector of Penang's economy.

The federal government had identified medical tourism as a growth sector as early as 1998, and went on to establish the Malaysian Healthcare Travel Council (MHTC) within the Ministry of Health in 2009. Healthcare was earmarked as one of the country's 12 National Key Economic Areas (NKEAs) with the launch of the Economic Transformation Programme in 2010, and medical tourism is projected to generate RM9.6 billion in revenue and attract 1.9 million foreign patients annually by 2020[24].

[24] Pemandu (2010). Creating wealth through excellence in health care. Available from: http://www.moh.gov.my/images/gallery/ETP/NKEA%20Penjagaan%20Kesihatan.pdf

In December 2014, MHTC Concierge and Lounge was launched in Penang International Airport (PIA) as a one-stop centre for all matters related to healthcare travel, to provide a seamless experience for medical tourists and patients. This highlights the importance of Penang as a medical tourism hub. According to Deputy Health Minister Datuk Seri Dr Hilmi Yahya[25], about 1,000 patients come to Penang per day for medical treatment, and medical tourism is a fast growing industry for Malaysia which saw an overall increase of 15% over the past two years.

Last year, Malaysia was listed in the top 14 medical tourist destinations and ranked number 5 by the volume of care. According to a Frost & Sullivan market research report (see Table 4.1). Malaysia, Thailand, India and Singapore command at least 80% of the Asian market share by 2015. Table 4.2 shows that Malaysia still trails behind the regional leaders Thailand and Singapore in terms of number of medical tourists and revenue. Malaysia also has the lowest number of healthcare facilities among the four countries which attained international accreditation issued by Joint Commission International (JCI)[26]. Of these, only two are based in Penang: Penang Adventist Hospital and KPJ Penang Specialist Hospital.

In fact, more private hospitals in Malaysia signed up for and obtained the accreditation from the Malaysian Society for Quality in Health (MSQH)[27]. Among 35 hospitals with that status, five are based in Penang: Gleneagles Penang, Loh Guan Lye, Lam Wah Ee, Pantai Penang and KPJ Penang Specialist Hospital.

A common sight you shall find in many private hospitals in Penang.

[25] Penang accounts for 50% of medical tourists. The Sun Daily, 6 Dec 2014. http://www.thesundaily.my/news/1260128

[26] List of current JCI-accredited organizations. Available from: http://www.jointcommissioninternational.org/about-jci/jci-accredited-organizations/?c=Malaysia

[27] List of hospitals with current MSQH accreditation status. Available from: http://www.msqh.com.my/msqh/ct-menu-item-19/2015-02-04-01-39-48/ct-menu-item-33

1	Thailand
2	Hungary
3	India
4	Singapore
5	Malaysia
6	Philippines
7	United States
8	Costa Rica
9	Brazil
10	Mexico
11	South Korea
12	Colombia
13	Belgium
14	Turkey

Table 4.1
Top 14 medical tourist destinations by volume of care

Source: Frost & Sullivan (2014)[28].

	Estimated Number of Medical Tourist (2012)	Estimated Revenue (million US$)	Number of JCI-accredited healthcare facilities	Popular treatment options
Malaysia	671,000	216	13	Cardiology, oncology, orthopaedic, obstetrics, and gynaecology
Singapore	494,000	705	21	Cardiology, ophthalmology, oncology, and anti-ageing
Thailand	2,530,000	4000-4600	37	Alternative medicine, cosmetic surgery, dental care, gender realignment, heart surgery, obesity surgery, oncology, and orthopaedics
India	170,000	N/A	21	Cardiology, orthopaedics, nephrology, oncology, and neurosurgery

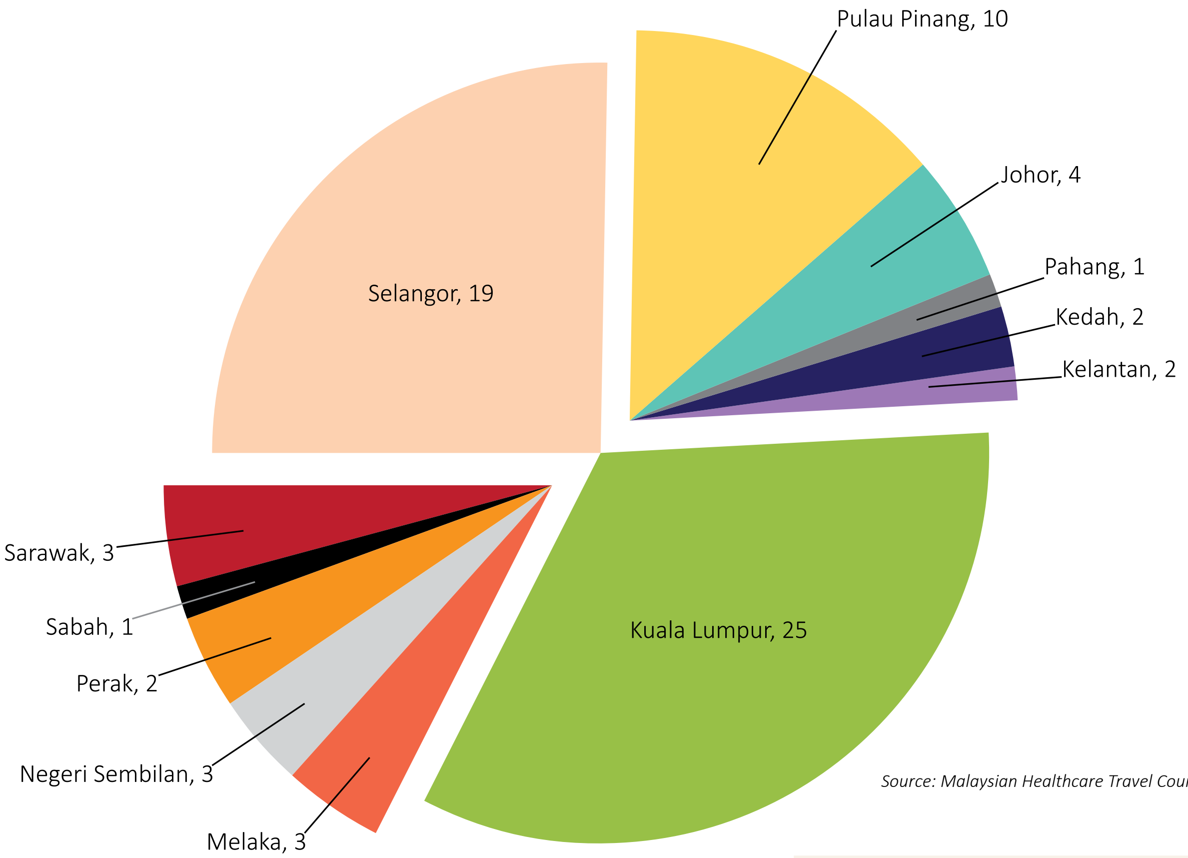
Source: KPMG (2014)[29] and own findings

Table 4.2
Comparison of major medical tourism destinations in Asia

[28] Frost & Sullivan (2014) market research report. Also mentioned in Forbes: http://www.forbes.com/sites/reenitadas/2014/08/19/medical-tourism-gets-a-facelift-and-perhaps-a-pacemaker/

[29] KPMG (2014) report, pg. 35. Medical value travel in India, presented to FICCI Heal Conference. Available from: https://www.kpmg.com/IN/en/IssuesAndInsights/ArticlesPublications/Documents/KPMG-FICCI-Heal-Sep2014.pdf

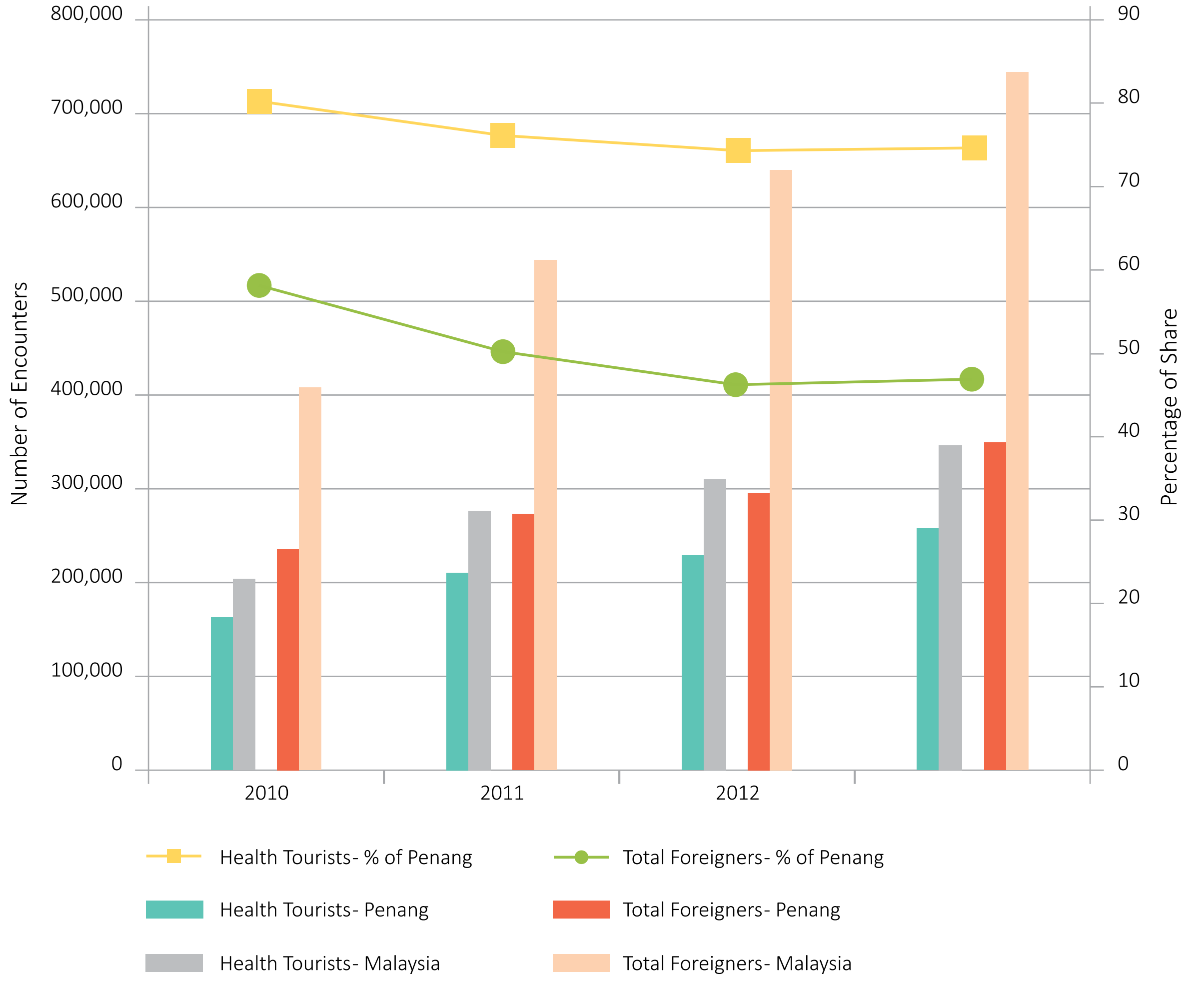
Medical providers catering for medical tourism are properly regulated. Most of them can be found in Kuala Lumpur, Selangor and Penang, these states being the hotspots for medical tourism in Malaysia. There are currently over 250 private hospitals in Malaysia. MHTC is tasked to streamline healthcare travel service providers and industry players, to ensure that only the well-equipped hospitals are approved and registered to be participating medical tourism providers in Malaysia. Besides the aforementioned accreditation programmes, these hospitals have to undergo stringent evaluation by a selection committee to check if the standard of service and quality of medical care provided meet the expectations of the industry. So far, there are 75 participating medical providers approved and registered under MHTC[30] (Figure 4.1). Of these, 10 are based in Penang. Over half of these private hospitals catering for health travellers are based in the Klang Valley region, i.e. Kuala Lumpur and Selangor.



Source: Malaysian Healthcare Travel Council.

Figure 4.1
Number of MHTC approved and registered medical providers in Malaysia, 2015

[30] The list of participating medical providers. MHTC website. http://www.mhtc.org.my/en/medi-list-state-asc.aspx



Source: Health Informatics Centre and own calculation

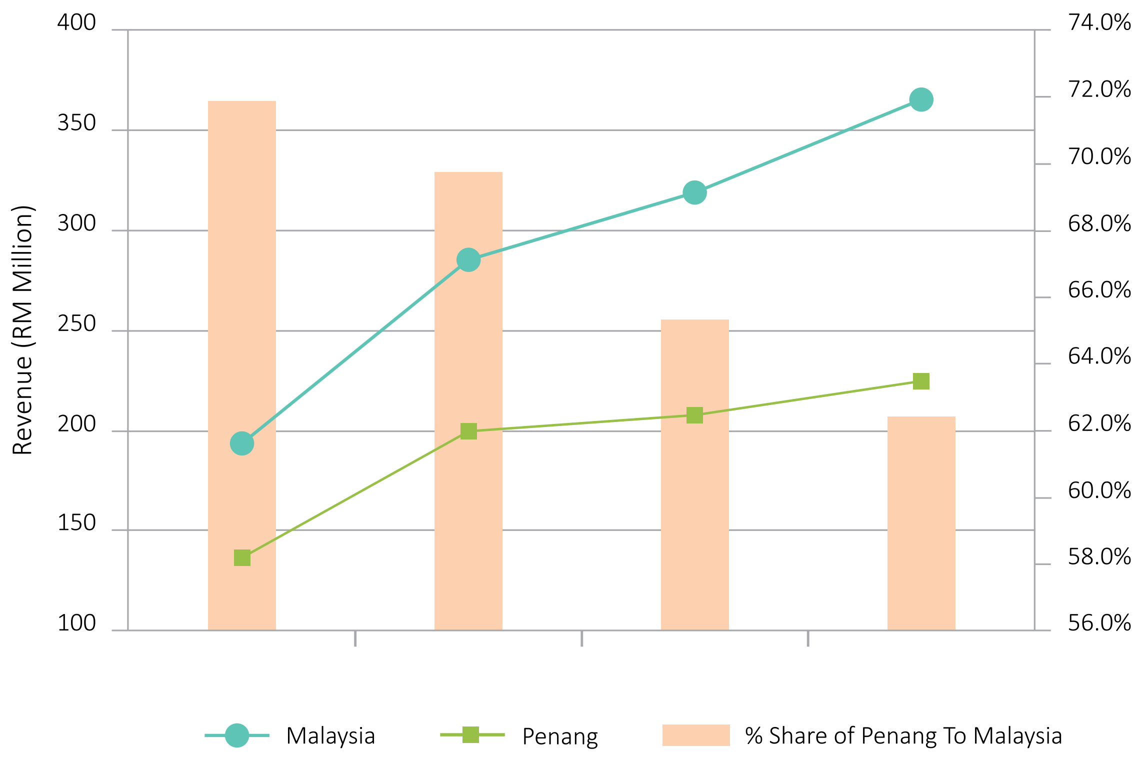
Figure 4.2
Number of foreign patients and health tourists in Penang and Malaysia, 2010-2013

Despite having only 10 out of 24[31] private hospitals that are eligible to receive health tourists in Penang, these hospitals attracted 74-80% of total health tourists in the country. Foreign patients who are residents or who seek medical treatment during their holidays in Malaysia are also registered in medical records but separately from health tourists. The Health Informatics Centre in Ministry of Health defines a health tourist as a patient who travels to Malaysia with the intention to seek medical services or surgery treatment.

[31] This includes private maternity homes. Health Facts 2014, Penang State Health Department.

Over half of foreign patients were treated outside Penang, but Penang received disproportionately more health tourists than other regions in Malaysia (Figure 4.2). About 75% verified health tourists seek treatment in Penang. This can be attributed to the reputation of many hospital establishments in Penang which have long served health travellers to a high standard of medical services and have a good track record. However, the percentage share of Malaysia's health tourists who seek treatment in Penang dropped from 2010 to 2012. This recent development suggests that the competitive advantage of private hospitals in Penang is slowly being eroded away by local competitors in other Malaysian states.

Medical tourism brings in more than RM360 million in revenue to the private healthcare sector every year. Despite slower revenue growth, hospitals in Penang gain more than 62% of the total revenue for medical tourism in Malaysia. Revenue generated from health tourists increased each year from 2010 to 2013 (Figure 4.3). The revenue growth rate for Malaysia has been on a steeper gradient compared to Penang's, indicating that the medical tourism industry is expanding fast in Malaysia. Qualified private hospitals outside Penang have started to pick up and are attracting more health tourists.



Source: Health Informatics Centre and own calculation

Figure 4.3
Revenue (RM Million) for Health Tourists in Penang and Malaysia, 2010-2013

Hospitals in Penang have received more health tourists and generated more revenue per establishment compared to the national average. In Table 4.3, Table 4.4 and Table 4.5, the number of health tourist encounters and revenue are adjusted according to the number of hospitals for direct comparison. What is still going strong for Penang is the increasing average number of health tourist encounters and average revenue received from health tourists (Table 4.3 and Table 4.4). This indicates that Penang still has the edge over local competitors in other cities. On average, an MHTC-registered hospital in Penang received 5.15 times more health tourists and generated 4.3 times greater revenue than that of Malaysia in 2013.

In terms of average revenue generated per health tourist encounter, Penang's hospitals generated smaller revenue per patient head (Table 4.5). The value of the average revenue per head in Penang seems to have fallen back to 2010 levels before the country registered an increase from 2010 to 2013. Thus, the revenue gap between hospitals in Penang and Malaysia is also getting wider. It is likely dependent on the types of medical treatment the health tourists are seeking in Penang versus elsewhere in Malaysia. Patients usually spend more when admitted into the hospitals – perhaps more health tourists in Penang prefer not to be admitted and would rather visit these medical facilities as outpatients. It could also be that health tourists for other parts of Malaysia undertake more complicated and higher priced procedures. Besides, the numbers might also reflect increased medical bill pricing, especially in the Klang Valley. This might explain why the average revenue per patient is getting higher in Malaysia, while Penang can still maintain its price competitiveness.

Year	Penang	Malaysia	Ratio of Penang / Malaysia
2010	23,735	5,951	3.99
2011	26,459	6,800	3.89
2012	25,763	5,672	4.54
2013	28,775	5,590	5.15

Table 4.3
Average number of health tourist encounters per hospital in Penang and Malaysia, 2010-2013

Year	Penang	Malaysia	Ratio of Penang / Malaysia
2010	19.64	5.47	3.59
2011	24.98	6.99	3.57
2012	23.25	5.84	3.98
2013	25.53	5.94	4.30

Table 4.4
Average revenue (RM million) for health tourists per hospital in Penang and Malaysia, 2010-2013

Year	Penang	Malaysia	Revenue Difference (Penang- Malaysia)
2010	827.5	918.5	-90.9
2011	943.9	1,027.7	-83.8
2012	902.4	1,029.2	-126.8
2013	887.3	1,063.2	-176.0

Table 4.5
Average revenue (RM) per encounter for health tourists in Penang and Malaysia, 2010-2013

Most health tourists in Penang and Malaysia are Indonesian. Most Indonesian health tourists firmly place Penang as their first choice due to the close proximity, minimal language barrier and affordable cost. This is evident in Figure 4.4, where 80% of Malaysia's health tourists of Indonesian nationality received treatment in Penang. In terms of percentage share of total health tourists, Indonesians took up a whopping 96.4% and 90.4% in Penang and Malaysia respectively.

Other foreign patients including the Japanese, British, Americans and Australians have a higher percentage share among all health tourists in Penang compared to that of Malaysia (Figure 4.5 and Figure 4.6). Malaysia categorises the remaining nationalities in the "Others" category (55%) (Figure 4.6).

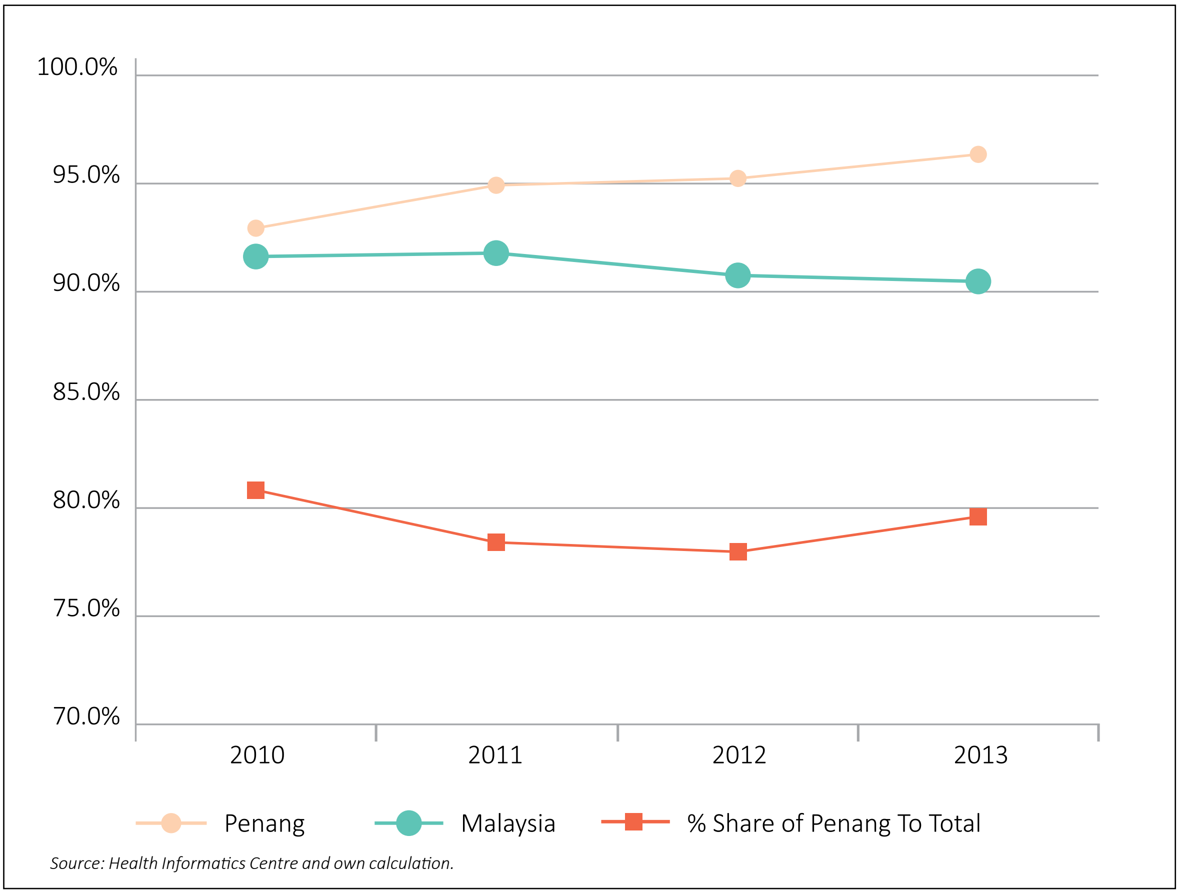


Figure 4.4: Percentage share of Indonesian health tourists for Penang and Malaysia, 2010-2013

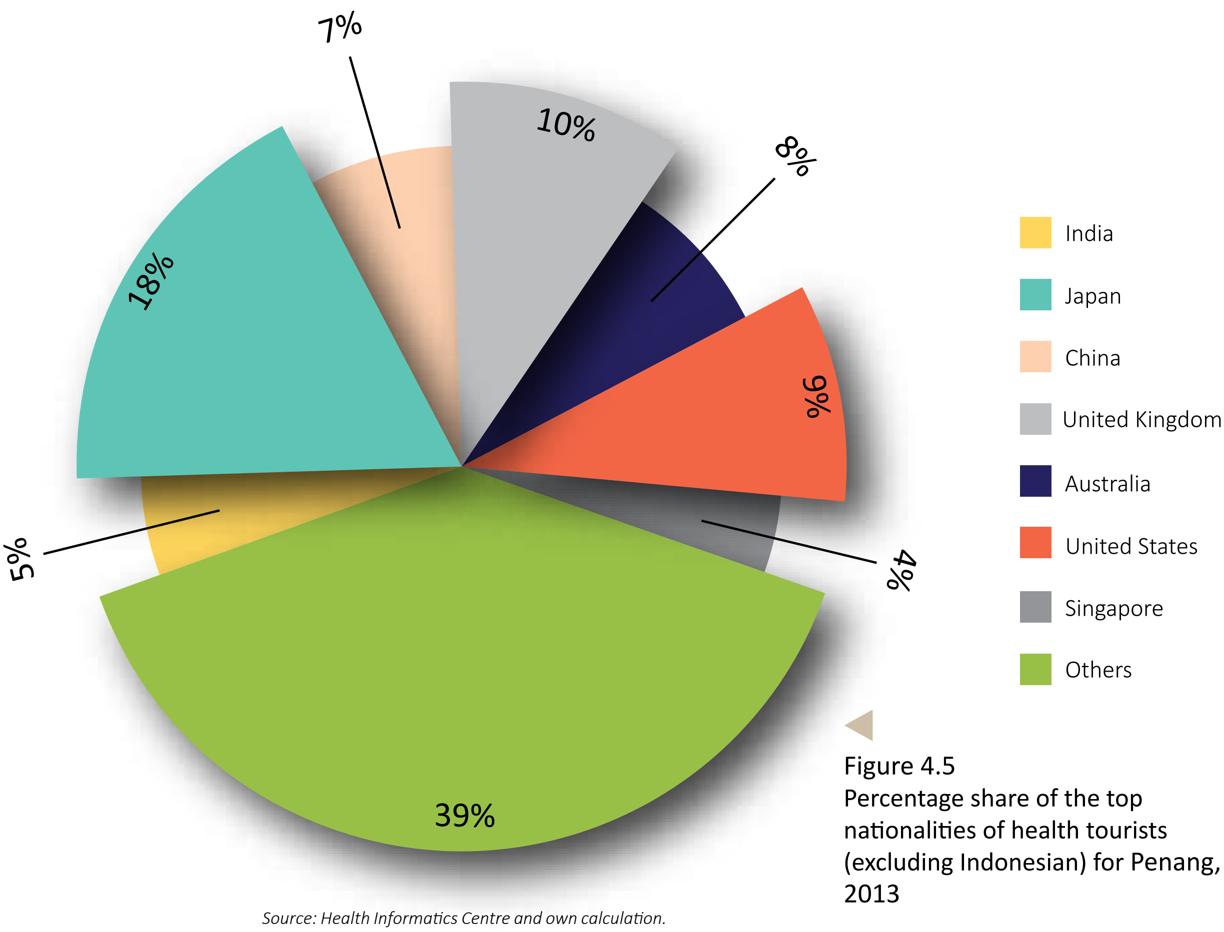
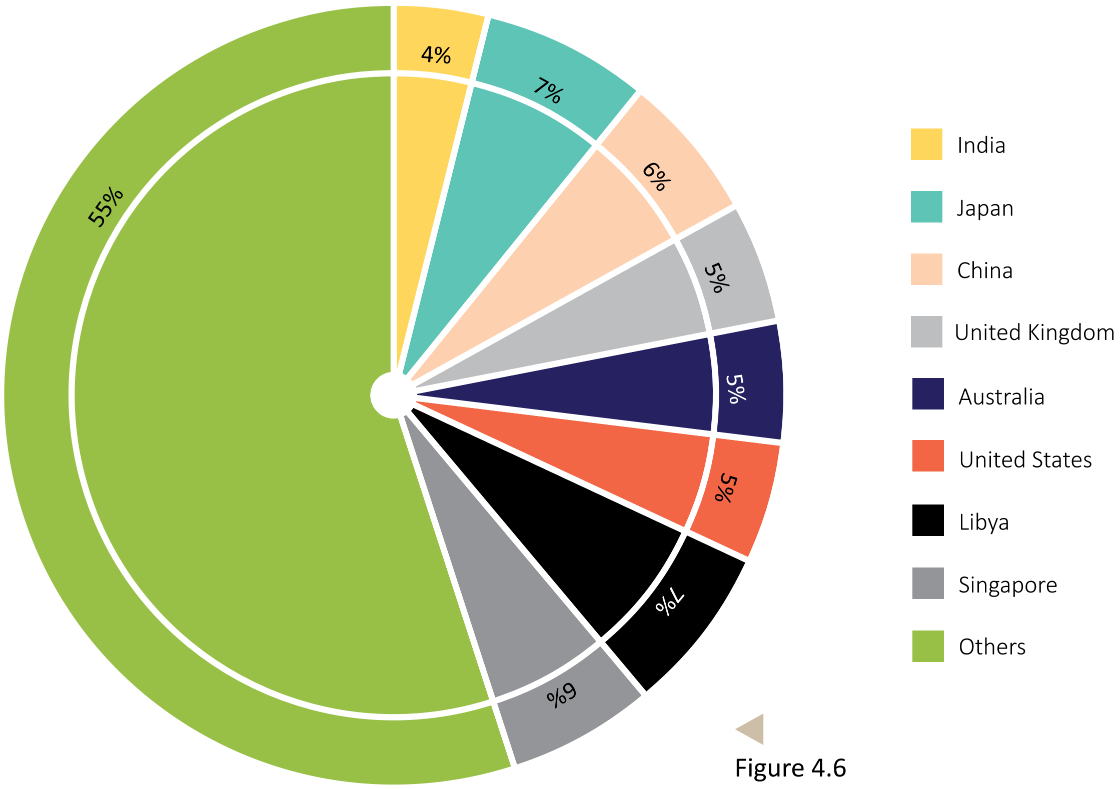


Figure 4.5
Percentage share of the top nationalities of health tourists (excluding Indonesian) for Penang, 2013



Source: Health Informatics Centre and own calculation.

Figure 4.6
Percentage share of the top nationalities of health tourists (excluding Indonesian) for Malaysia, 2013

Hospitals in Penang have a higher ratio of health tourists to total admissions, due to high healthcare demand from a large number of health tourists. The number of foreign patients and health tourist admissions are estimated based on total encounter numbers for these two groups. In 2013, private hospitals and healthcare centres in Penang have a capacity of 2,338 beds[32]. They have since upgraded and expanded their facilities to increase the number of beds, as the total number of admissions also grew over years (Table 4.6). In fact, the growth rate of health tourist admissions is higher than that of total admissions. This is reflected in Penang's increased share of health tourists to total admissions from 8.8% (2010) to 12.5% (2013). During the same period, the percentage share of health tourists to total admissions in Malaysia stands at 1.8% (2010) to 2.6% (2013). This can be explained by the disproportionately large number of health tourists flocking to Penang.

The past record revealed that revenue generated from inpatients is on average 15 times higher than outpatients. Therefore, MHTC-participating medical providers with the ability to unlock under-utilised resources to accommodate more health tourists will gain the most from medical tourism.

[32] Health Facts Penang, 2014. *Penang State Health Department.*

	Total Admissions	Estimated Foreign Admissions	Estimated Health Tourist Admissions	% Share of Foreign to Total Admissions	% Share of Health Tourist to Total Admissions	% Share of Health Tourist to total Foreign Encounters
2010	145,677	18,423	12,780	12.6%	8.8%	69.4%
2011	151,680	21,156	16,283	13.9%	10.7%	77.0%
2012	152,810	22,912	17,836	15.0%	11.7%	77.8%
2013	159,183	27,052	19,921	17.0%	12.5%	73.6%

Source: Health Facts Penang, 2014 and own estimate and calculations.

Table 4.6: Total and estimated foreign and health tourist admissions in Penang, 2010-2013

	Total Admissions	Estimated Foreign Admissions	Estimated Health Tourist Admissions	% Share of Foreign to Total Admissions	% Share of Health Tourist to Total Admissions	% Share of Health Tourist to total Foreign Encounters
2010	869,833	31,510	16,023	3.6%	1.8%	50.8%
2011	904,816	42,027	21,447	4.6%	2.4%	51.0%
2012	971,080	49,377	23,995	5.1%	2.5%	48.6%
2013	1,020,397	57,509	26,662	5.6%	2.6%	46.4%

Source: Health Facts Penang, 2014 and own estimate and calculations.

Table 4.7: Total and estimated foreign and health tourist admissions in Malaysia, 2010-2013

Challenges ahead: Market expansion in the midst of economic turbulence.

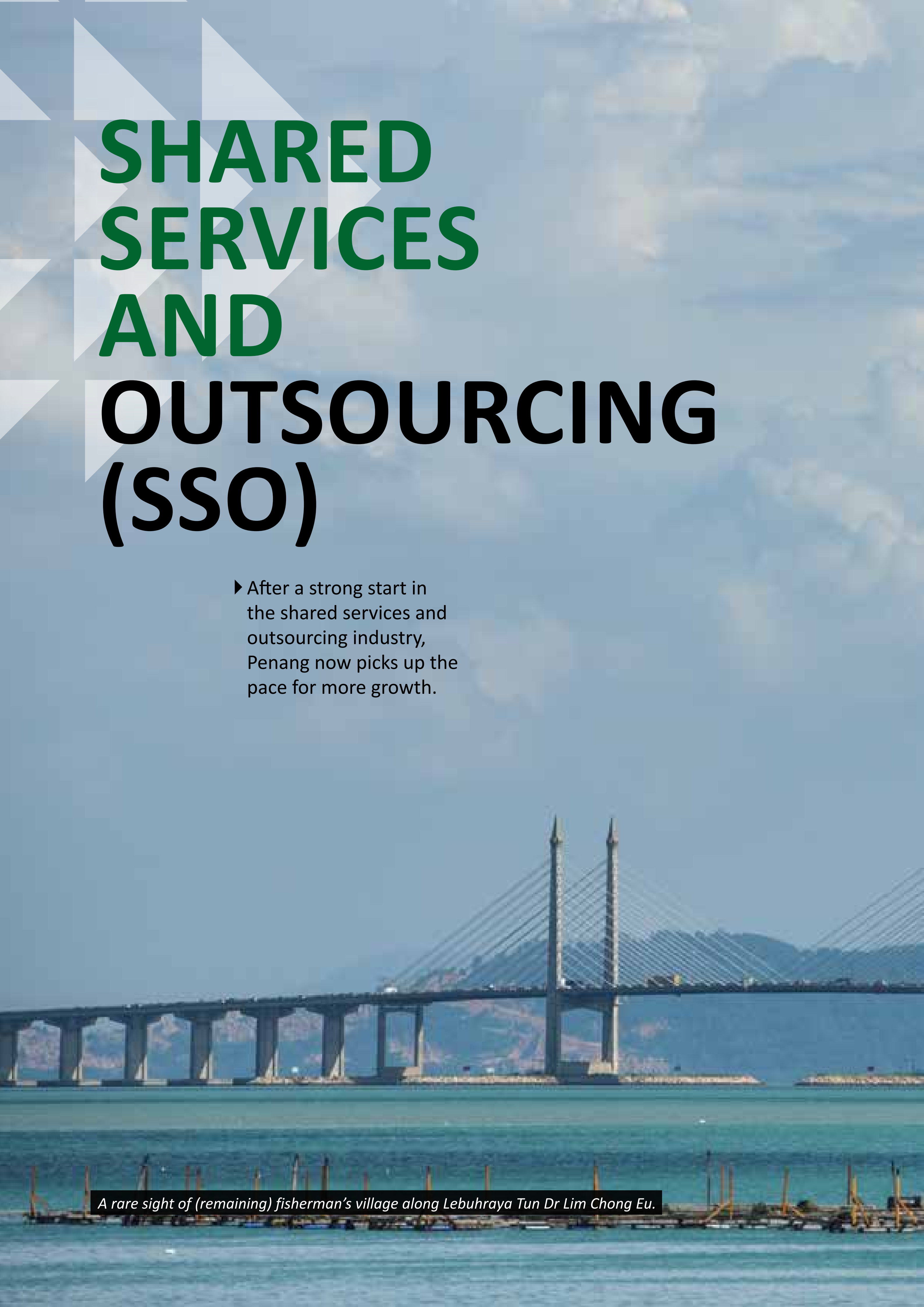
The introduction of the Jaminan Kesehatan Nasional (JKN, National Health Insurance) programme in Indonesia since the beginning of 2014 is expected to impact healthcare service providers that are reliant on the revenue from medical tourism. This is because the JKN programme would encourage Indonesian patients to get treatment in their homeland. The number of health tourists from Indonesia is forecasted to drop between 20 and 30% in 2015 compared to previous year, according to industry insiders. If true, it would translate to a reduction of around RM 5-7 million in revenue a year per hospital. Therefore, new market expansion is at the top of the agenda for healthcare service providers to fill the void left by the reduced number of Indonesian patients.

The weakened Malaysian Ringgit would naturally make Penang (and Malaysia in general) more attractive to the rest of the world for medical tourism. The increased volume of medical tourists from other countries would help the industry withstand the pressure. However, operational costs will also increase due to more expensive imports for essential medical goods, e.g. drugs and medical devices.

The government's strong and continuous support for the medical tourism industry is vital to help the sector ride through the economic difficulties. MHTC's efforts to run heavy promotion campaigns or roadshows abroad should help healthcare service providers save costs and act concertedly to reach a wider market. In the long run, all will benefit from future potential visits.

SHARED SERVICES AND OUTSOURCING (SSO)

After a strong start in the shared services and outsourcing industry, Penang now picks up the pace for more growth.



A rare sight of (remaining) fisherman's village along Lebuhraya Tun Dr Lim Chong Eu.

Multinational corporations are now expected to build the next generation of high-performing support services operations at their offshore centres throughout the world.

Cloud computing and Internet of Things (IoT) solutions are high-end IT infrastructures that can enhance shared business services in the emerging field of big data and analytics. And that is good news for Penang; Penang's shared services industry is expected to benefit from companies such as Intel Penang spearheading the construction of a Cloud Data Centre and Research Lab. This is in line with Malaysia's move to increase SSO activities.

Penang Science Cluster at Wisma Yeap Chor Ee, situated at the junction of Pengkalan Weld and Gat Lebuh China.

Penang foresees a third wave of growth focusing on the services of knowledge-intensive and innovation-led sectors over the next five to 10 years. Penang's SSO industry is geared up for transformation: from a traditional transactional services hub to a higher value-added knowledge-based activities. The key verticals of SSO segmentation include IT outsourcing (ITO), business process outsourcing (BPO) and knowledge process outsourcing (KPO). KPO has the highest value-adding services, including market research, customer analytics, financial and stock market research, and R&D (Figure 5.1). It includes activities such as engineering and design services, medical diagnostic outsourcing, pharmaceutical R&D, market and consulting research, data analysis, taxation support, and legal processes and advisory.

The mid value of SSO is BPO, which consists of contact centres, finance and accounting, and payroll and legal services. The majority of Penang's SSO companies is limited to BPO services; most of them set up their centres next to their manufacturing plants to facilitate these services and serve their offices in other countries.

The low value of SSO is ITO, which is a fundamental technical service and includes IT infrastructure management, network and desktop management, and IT consulting services.

The SSO sector's is targeted to move up the services value chain, focusing more on high-value export-oriented SSO activities in BPO, ITO and KPO.

Source: Multimedia Development Corporation (MDeC).

Given its existing comparative advantage and capabilities in the electronics industry, this new cluster of economic development is expected to lure global business leaders into knowledge-based sectors. A new investment has been made by Temasek and Penang Development Corporation (PDC) in developing Business Process Outsourcing Prime (BPO Prime) in Bayan Baru and Penang International Technology Park (PITP) in Batu Kawan. Furthermore, Penang also launched Malaysia's first Business Process Outsourcing – Information Technology Outsourcing (BPO-ITO) hub, worth RM3.3 billion, on 1 March 2014. The hub covers a net floor area of 4.3 million square feet – 74 acres to develop a BPO Park at Bayan Lepas, 6.8 acres for BPO Prime at Bayan Baru and 100,000 square feet for Creative Animation Triggers (CAT) within the George Town heritage enclave.

Penang has seen a number of forward-thinking MNCs integrate high-end services activities into their traditional manufacturing operations. AMD, Intel, Dell and First Solar are examples of companies that have relocated their global shared services centres to be closer to their manufacturing plants. These shared services centres support regional or worldwide business services, which mostly fall under mid- and high-value categories. On top of that, several mature companies have moved out of their captive

Figure 5.1
Three value levels of SSO

call centre operations and are exploring advanced in-house knowledge activities. AMD Global Services relocated its global shared services to Penang, increasing its employment headcount from 13 people in 2002 to over 300 people in 2014. Its data input, call centre and transactional services are now obsolete, and with its MSC status, AMD Global Services seeks to strengthen its analytics team by cultivating high value skill sets to serve its worldwide offices.

Apart from the manufacturing sector, Penang also witnesses the continual growth of the SSO industry in the finance, aviation, agribusiness and knowledge management industries. In finance, Penang is Citigroup's largest regional trade and cash processing centre. It has made Penang its strategic centre for treasury management activities, handling some 20 million transactions with an output of around RM21.7 trillion annually. Together with its second premises which opened in 2012, the centre employs approximately 1,000 people to serve Citigroup's clients in Asia, North America, Europe, the Middle East and Africa[33]. On the other hand, in the aviation industry, AirAsia's Global Shared Services has chosen Penang to set up its SSO operations. The MSC Malaysia-awarded company established its services in all three values of SSO, providing services in accounting, financial and administrative processes, human resource functions, procurement and IT to its offices across the globe[34].

[33] "Citi promotes Penang as strategic centre for treasury management activities", The Asian Banker, 17 September 2013, http://www.theasianbanker.com/press-releases/citi-promotes-penang-as-strategic-centre-for-treasury-management-activities

[34] http://productlisting.mscmalaysia.my/msc-company/airasia-global-shared-services-sdn-bhd

Penang also continues to attract investments from global knowledge management firms. Following the arrival of Thomson Reuters, IHS established its third Centre of Excellence (CoE) in 2012, providing a full spectrum of help desk and order management services for its customers. The investment is estimated to potentially exceed RM187 million, with a possible headcount of 1,000 employees by 2015 . It is highly recommended for IHS to increase its high value activities – such as customer analytics and market research – to provide wider career advancement opportunities for the folks of Penang.

An injection of talent via ASEAN Economic Community (AEC)

The impending arrival of the ASEAN Economic Community (AEC) in December 2015 opens the door for regional talent recruitment[36]. Penang should leverage its geographical and language strengths; more innovative and proactive individuals can be lured from neighbouring countries such as Thailand and Indonesia. In addition, the AEC helps to address one major constraint: as shared services networks become more complex, some centres are finding it hard to attract, retain and develop entrepreneurial leaders[37]. Cross-border recruitment are a potential solution; seven mutual recognition agreements (MRAs) have been signed by Asean member states to remove all restrictions on job markets[38]. Regional candidates with professional degrees in engineering and accountancy are most likely to fill skill gaps in the job market.

Penang has ambitions to advance up the value chain in the KPO cluster to stay relevant and competitive. Its SSO industry benefits from higher-end IT infrastructure; this can be seen from Intel Penang's adoption of IoT and its Cloud Data Centre and Research Lab, in collaboration with Collaborative Research in Engineering Science and Technology (CREST). This is expected to intensify the growth of the SSO industry in areas of big data and analytics in Penang. And with the AEC comes access to a larger talent pool – something Penang should aggressively take advantage of.

In sum, countries that still embark on low value-added strategies in the business services sector may soon see their opportunities erode; routine tasks and data entry will no longer be sustainable in the SSO industry. Some countries, such as India, have moved up the value chain to perform more advanced tasks, but for many offshore companies, it's still business as usual.

The Malaysian landscape

Malaysia continues to make steady gains in the SSO industry. The Economic Transformation Programme (ETP) 2014 annual report states that SSO continues to be a strong sector, generating RM2.02 billion in overseas export revenues

[36] To narrow the development gaps between ASEAN member states, ASEAN leaders create a single market and production base by assuring free flow of goods, services, investment, capital and skilled labour by December 2015. By 2020, the ASEAN Community plans to be recognised as the BPO capital of the world, offering a workforce of 300 million people (SSON, 2015).

[37] McKinsey & Company (Winter 2013). Taking captive offshoring to the next level. McKinsey on Business Technology, 32.

[38] These include engineering, nursing, medical and dental practitioners, architectural, accountancy services and surveying qualifications.

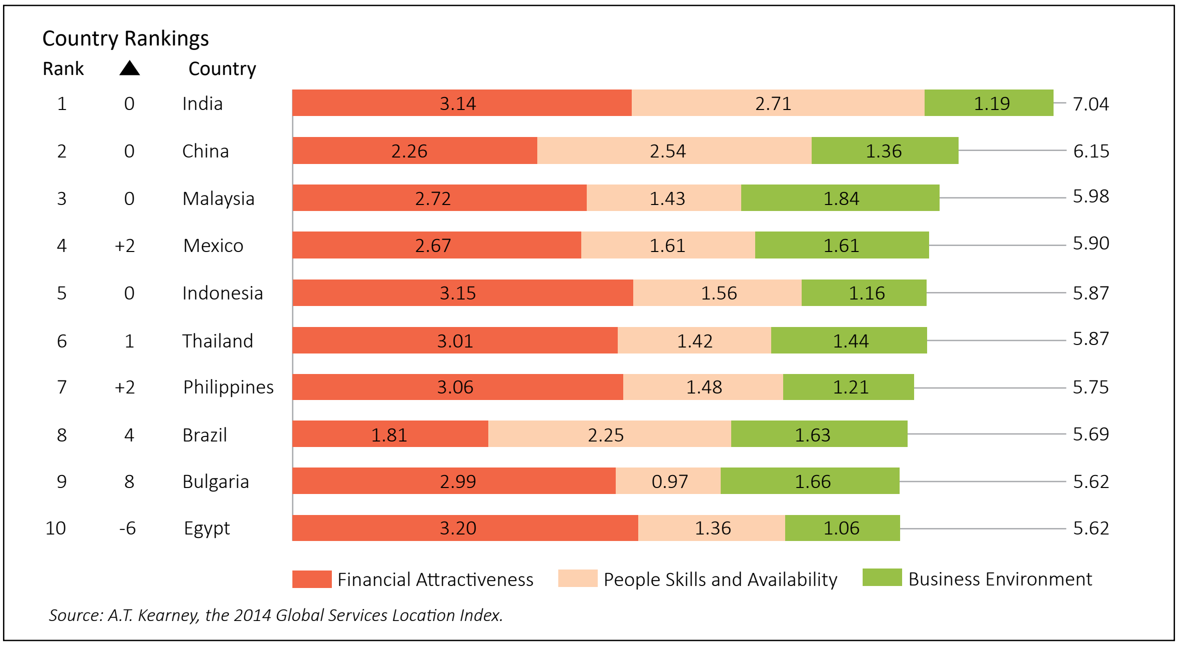


Figure 5.2: The 2014 A.T. Kearney Global Services Location Index (top 10 countries)

in 2014 and exceeding the target of RM1.83 billion. This is attributable to the continuous growth shown by many value-added services providers in the industry. On top of that, A.T. Kearney, a global management consulting firm, has placed Malaysia consistently in third place in the Global Services Location Index over the past decade[39]. The 2014 Global Services Location Index revealed that Malaysia performed substantially better than both India and China in business environment criteria, and slightly better than China in financial attractiveness (Figure 5.2). However, Malaysia needs to improve in the skills and availability of its labour force, which includes remote services sector experience and quality, labour force availability, and education and language. One way to do this is for Malaysia to leverage its business environment by incentivising shared services practitioners to increase skill training programmes for staff.

Taking advantage of the government's multi-pronged approach, most leading domestic and foreign shared services companies have begun to include shared services footprints in Malaysia. The federal government's efforts include the introduction of the Multimedia Super Corridor (MSC) status, Digital Malaysia (to promote a digitally enabled ecosystem), Outsourcing Malaysia (to support the outsourcing industry) and TalentCorp (to develop and attract talent). Today, some companies leverage their existing contact centres by transitioning into more complex help desk functions, customer support and knowledge-based services consisting of cost management, tax compliance, business analytics and consulting[40]. And with a multilingual and multicultural workforce, along with proven expertise, Malaysia obtains greater attention from multiple source markets including the US, Europe, Asia and the Middle East.

[39] The index ranks 50 countries according to their financial attractiveness, people skills and availability, and business environment.

[40] Shared Services Outsourcing Network (SSON, 2015). Malaysia's Shared Services Industry SSON Market Update 2015.

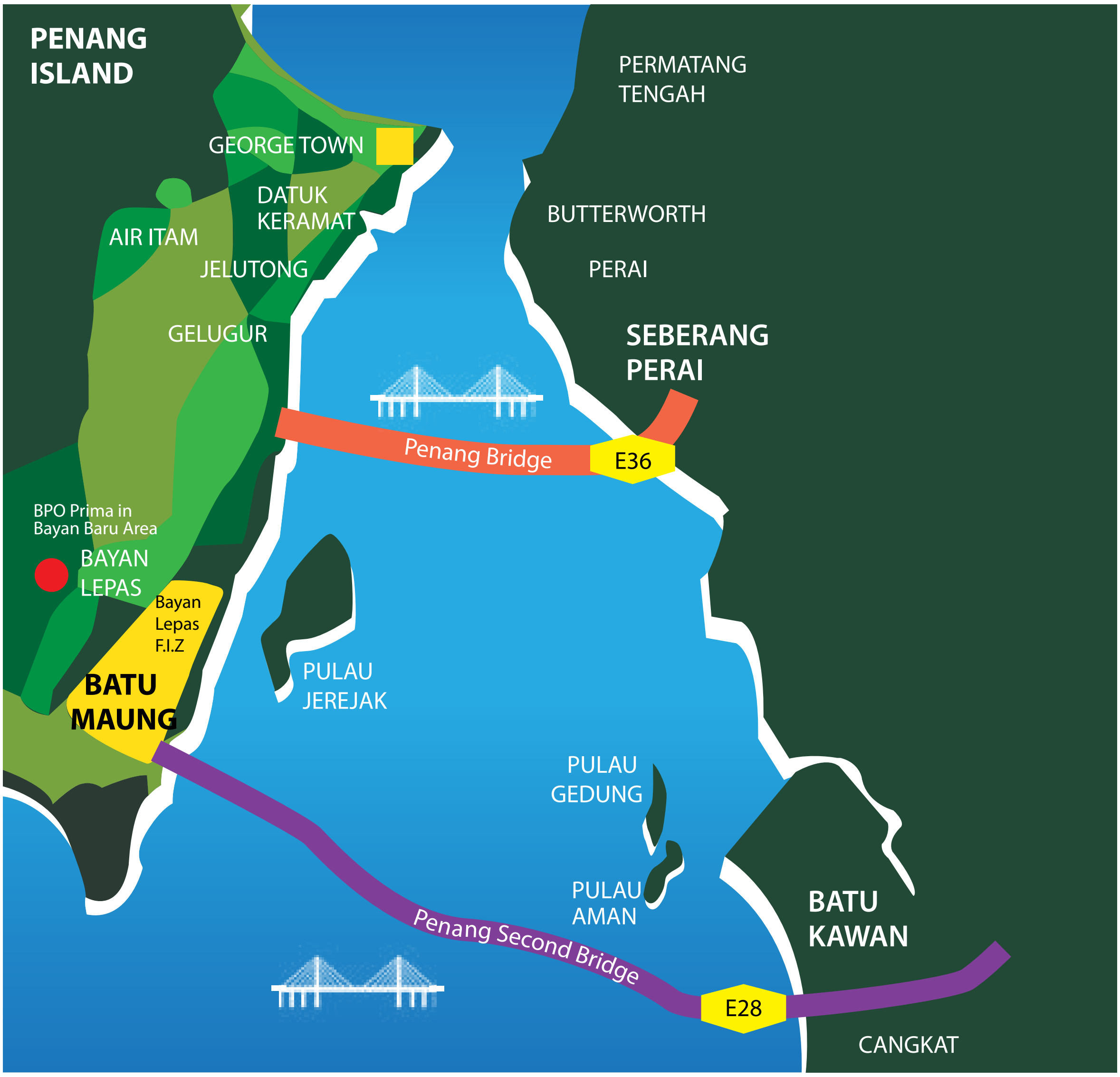
HOUSING MARKET

Housing market is estimated to slow down in 2015, and the planned supply is sufficient to meet the current and future market demand. Affordable housing should still be the top agenda for both the Penang state government and federal government to plan and execute.

A common sight in various corners of Penang - construction at work!

The Penang brand is the pull factor for the housing market, stimulating both the domestic and international demand.

Penang, the second smallest state in Malaysia, is an attractive place for investors, tourists, retirees and talents who seek career development. It is particularly true in recent years. Since the state capital George Town was inscribed as a UNESCO World Heritage Site in 2008, it has gained more attention from around the world. Notably, it was voted the eighth most liveable city in Asia by ECA International and the third best city to retire in the world (Forbes), and was named the top food destination by Lonely Planet (2014).

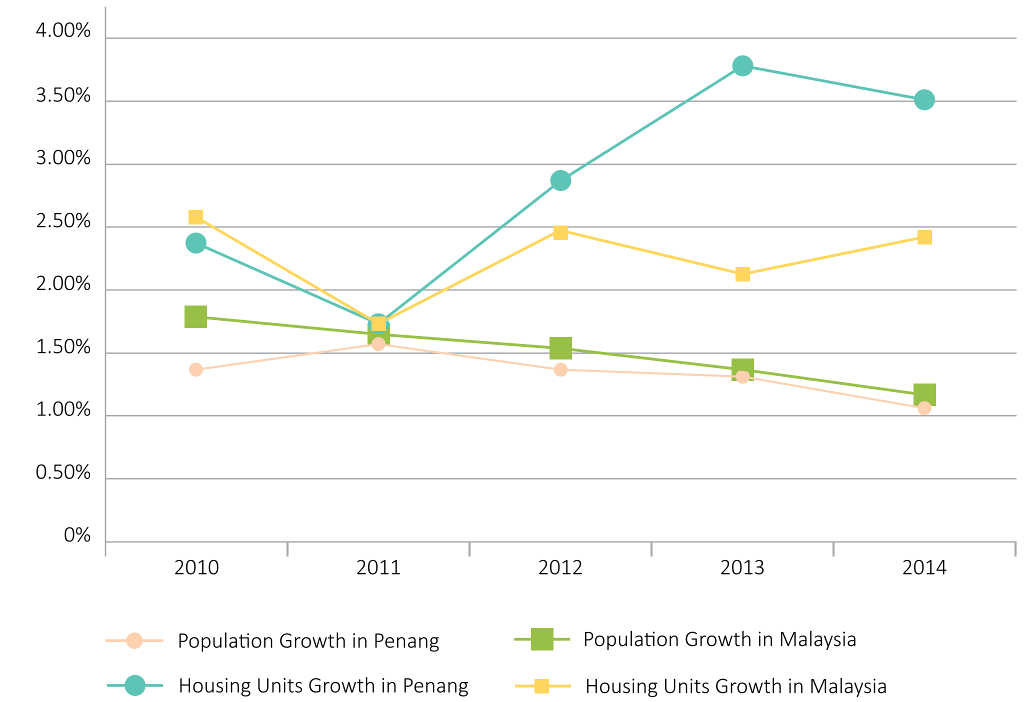


Source: Penang Institute.

Map 1
Location of Batu Maung and Batu Kawan in Penang

Recent and future development on both the island and the mainland looks promising. The recent completion of the second Penang Bridge (Sultan Abdul Halim Muadzam Shah Bridge) is changing the Penang landscape, bringing in rapid development in Batu Kawan and Batu Maung (see Map 1). Major transformative development projects such as Penang International Technology Park, University of Hull Campus, KDU Campus, One Auto Hub and IKEA store will be located in Batu Kawan. The feel-good factor, enhanced image of Penang and increasing job opportunities make Penang an appealing place to live for many, foreigners and locals alike, driving the housing market.

The supply of housing units significantly outpaced Penang's population growth rate, indicating a growing housing demand. Penang's population is growing, albeit at a slightly lower rate relative to the national rate (Figure 6.1). The population growth in Penang is driven by inward migration as well as low birth and



Source: The Malaysian House Price Index Q4 2010-2014, National Property Information Centre (NAPIC) and Department of Statistics Malaysia

Figure 6.1: Population and housing units growth in Penang and Malaysia, 2010-2014

death rates. The general trend suggests that the population growth rates for both Penang and Malaysia are heading towards gradual decline in the coming years. Still, in the past five years (2010-2014), the state's population has increased by 86,900. During the same period, 42,670 housing units were added to Penang's existing stock.

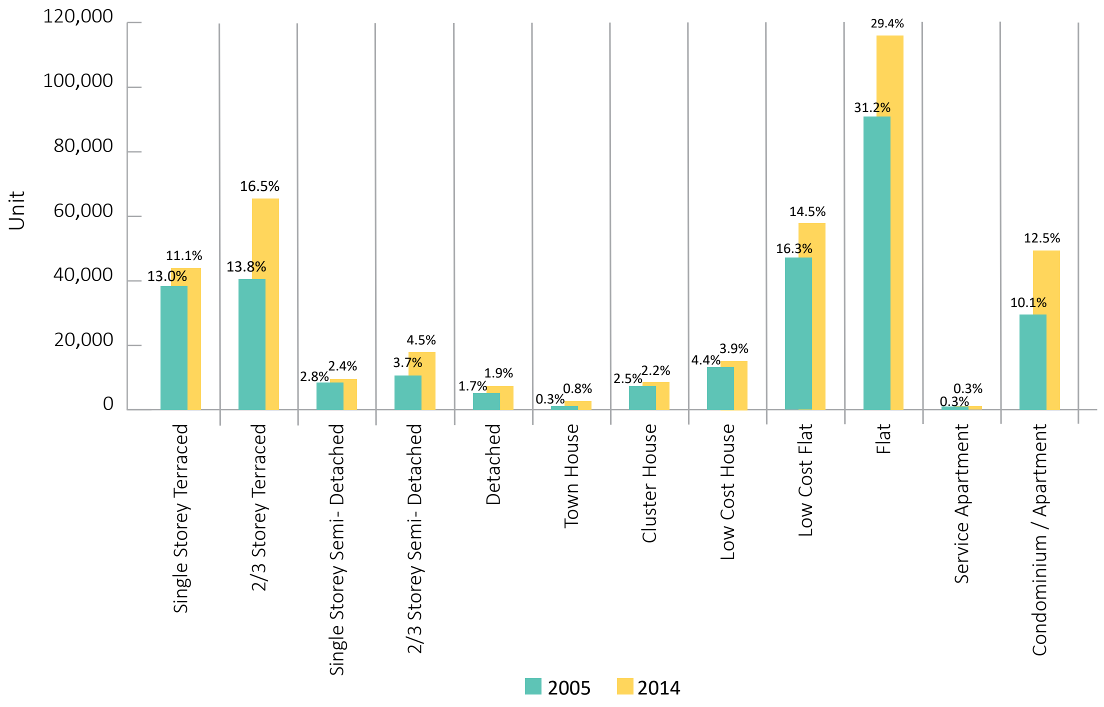
In terms of the growth rate of housing units, however, Penang has outpaced the national average since 2012. The supply of housing units has stayed high and peaked in 2013. Last year, the housing supply in Penang recorded a slight downturn at 3.5%, still it is 1.1 percentage points' higher than the national average. This shows that growth in the housing market has been booming in Penang since 2012 despite the slower increase in its population.

In the past 10 years, Penang's property market has experienced growing demand for 2/3 storey landed properties and condominiums. Figure 6.2 shows a 10-year difference in number of residential units by type and the respective percentage share in Penang between 2005 and 2014. A total of 101,752 units had been added to the existing stock since 2005 (Figure 6.3). The new additions are mostly coming from four residential types: flats, 2/3 storey terrace houses, condominiums and low-cost flats. In particular, 2/3 storey terrace houses and condominiums are the two fastest growing types of residential units in Penang; their percentage share out of the total existing stock has increased by 2.8 and 2.4 percentage points respectively.

This indicates that developers prefer to build these two types of residential units, in response to a steady but growing demand for these two types of units over the years. 2/3 storey terrace houses can be found more in Seberang Perai, while condominiums were supplied predominantly to Penang Island.

The Penang state government has responded to the issue of insufficient affordable housing by pledging to build more of such units. The existing stock of residential units is still dominated by low, low-medium and medium cost types such as flats, low cost flats, low cost houses and cluster houses (Figure 6.2). Most of these units fall under the "Affordable Housing" category, which is defined by the state government as below RM400,000 on the island and RM250,000 on the mainland[41]. Altogether, they command 50% of all residential property stock in 2014. Over the past 10 years, 38,111 units of these lower cost types have been added to the stock, but the percentage share has seen a drop of 4.42 percentage points. According to NAPIC Property Sales Report for Q1 2015, 47.1% and 69.4% of residential units were transacted for lower than RM250,000 and RM400,000 in Penang, respectively, as far as the "Affordable Housing" threshold is concerned.

The Penang state government realises the growing need for more low cost and affordable homes. On 7 December 2014, the Chief Minister of Penang, Lim Guan Eng, pledged to build 22,545 units[42] of such houses across five districts in Penang.



Source: Residential Property Stock Report Q4 2005 and 2014, NAPIC and Penang Institute

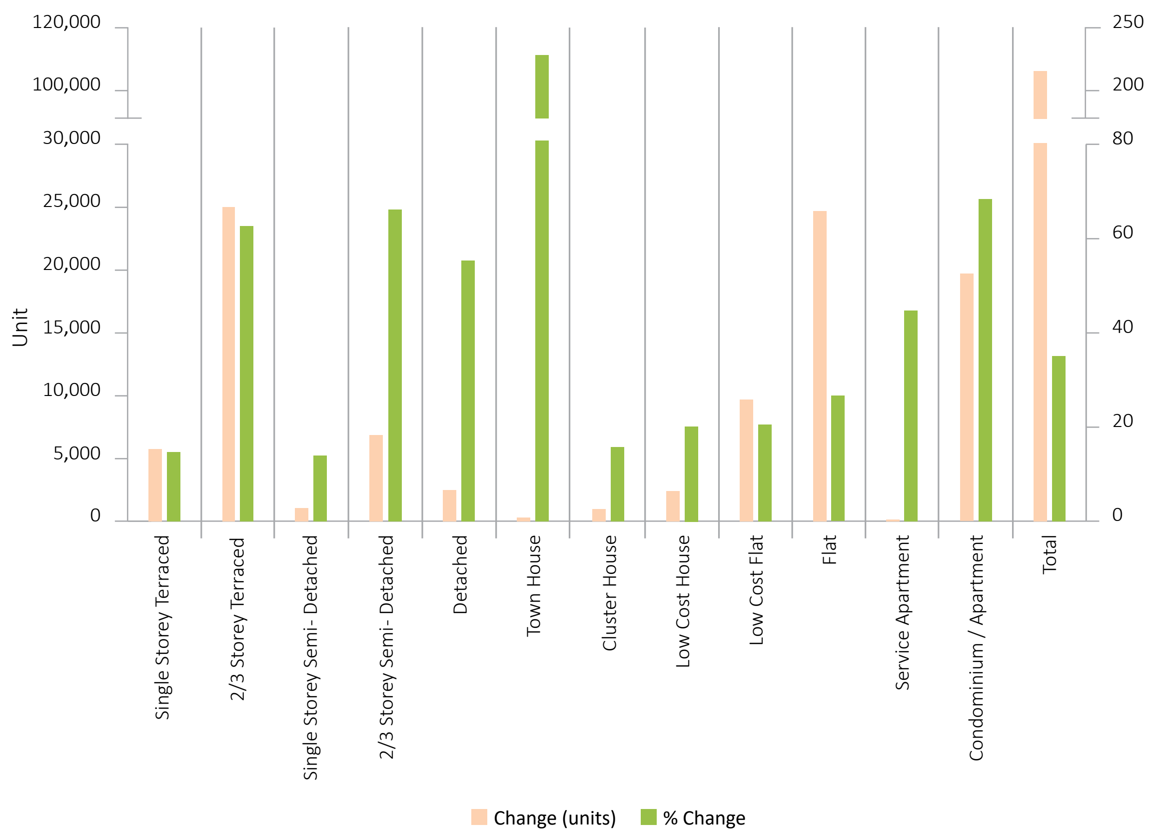
** Note: Single storey terraced = 1 to 1 ½ storey terraced; 2/3 storey terraced = 2 to 2 ½ storey terraced. Same definition goes to the semi-detached.*

Figure 6.2: Existing stock of residential units by type in Penang, 2005 and 2014

[41] Speech text by Chief Minister of Penang Lim Guan Eng on Sunday, 8 Dec 2013 http://limguaneng.com/index.php/2013/12/08/new-housing-rules-from-1-february-2014-to-protect-penang-from-being-adversely-affected-by-a-property-bubble-enbmcn/

[42] Budget 2015 Speech text by Chief Minister of Penang Lim Guan Eng on Friday, 7 Dec 2014 http://cm.penang.gov.my/index.php/darimejaketuamenteri/1480-ucapan-bajet-tahun-2015-negeri-pulau-pinang-oleh-yab-tuan-lim-guan-eng-ketua-menteri-pulau-pinang-bm-cn

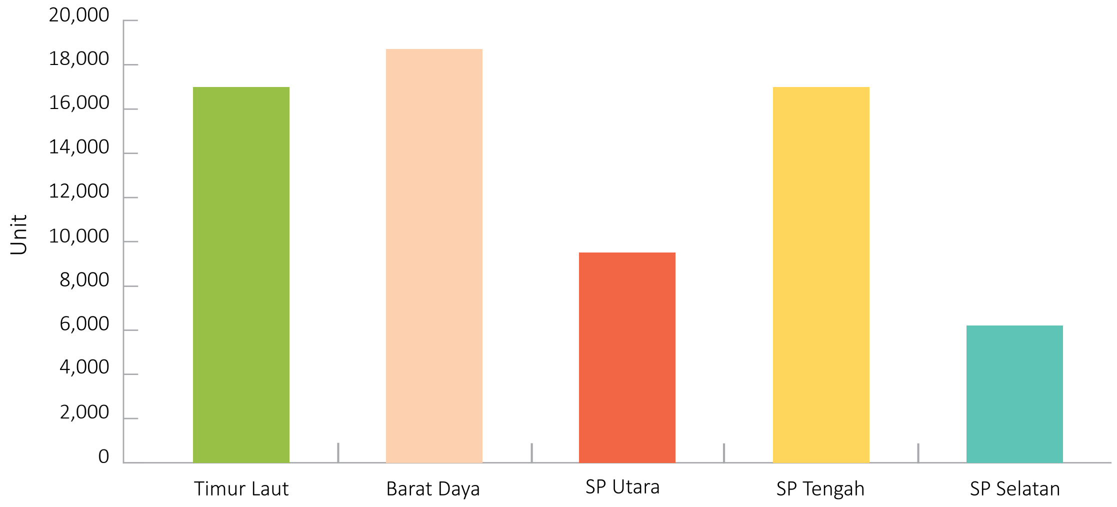
Landed properties are very highly sought after in Penang, especially on Penang Island, where land is scarce.



Source: Residential Property Stock Report Q4 2005 and 2014, NAPIC and Penang Institute.

Figure 6.3
Change in the supply of residential units by type in Penang, 2005-2014

Upward trend observed in supply of residential units southwest of Penang Island and in the mainland. A total of 68,211 planned supply units was announced in the fourth quarter of 2014, most of which will be concentrated on the island (Northeast and Southwest) and in Central Seberang Perai (Figure 6.4). The Southwest district overtook the Northeast district for the first time in the second quarter of 2014 in terms of supply units. It signifies that the growth of the housing market on the island has shifted west and southwards. Besides a larger area for housing development that is still available in the southwest of the island, the opening of the second Penang Bridge has intensified development, especially in the Batu Maung area. However, the housing market in South Seberang Perai has not picked up, with only 6,231 units in the planning stages, or just about a third of the units planned for the Southwest district.



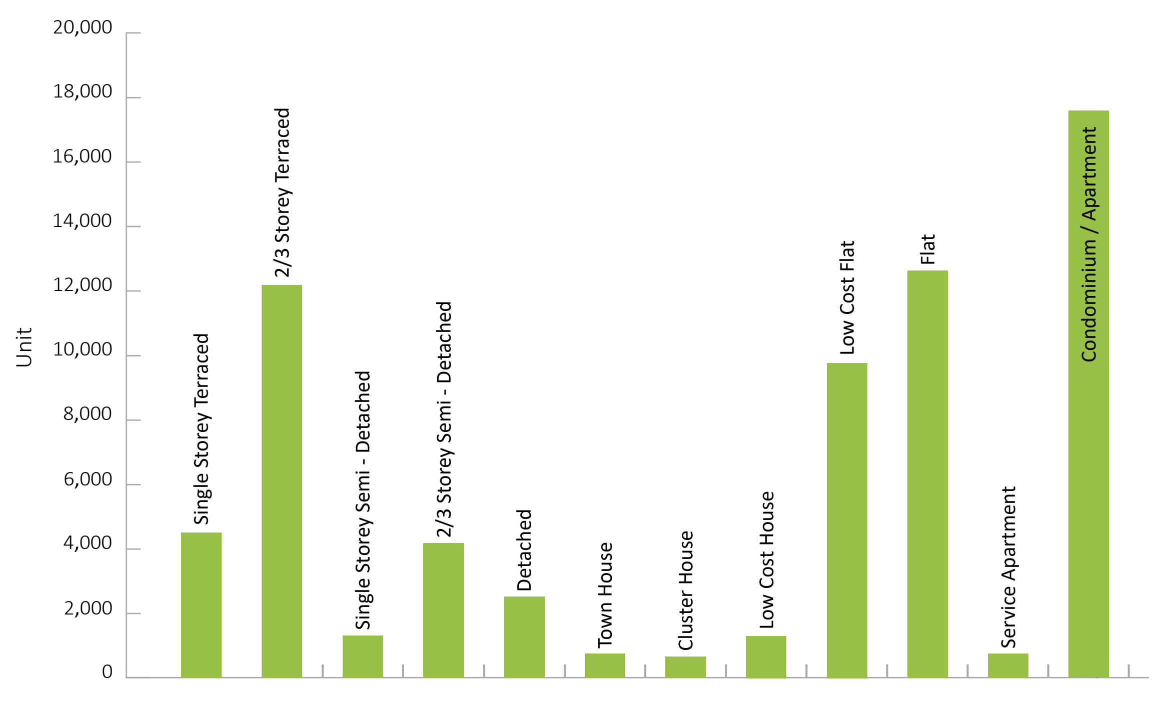
Source: Residential Property Stock Report Q4 2014, NAPIC. Preliminary.

Figure 6.4: Total planned supply of residential units by district in Penang (Q4 2014)

Exploring planned units by type, condominiums and apartments top the chart by accounting for approximately one quarter of the planned supply (Figure 6.5). Most condominiums or apartments are built on the island, with more than 7,500 and 5,300 units planned for the Northeast and Southwest districts, respectively (Figure 6.6). Interestingly, the number of planned condominium and apartment units in Central Seberang Perai has exceeded the 2/3 storey terraced houses for the first time in the fourth quarter of 2014 (Figure 6.6).

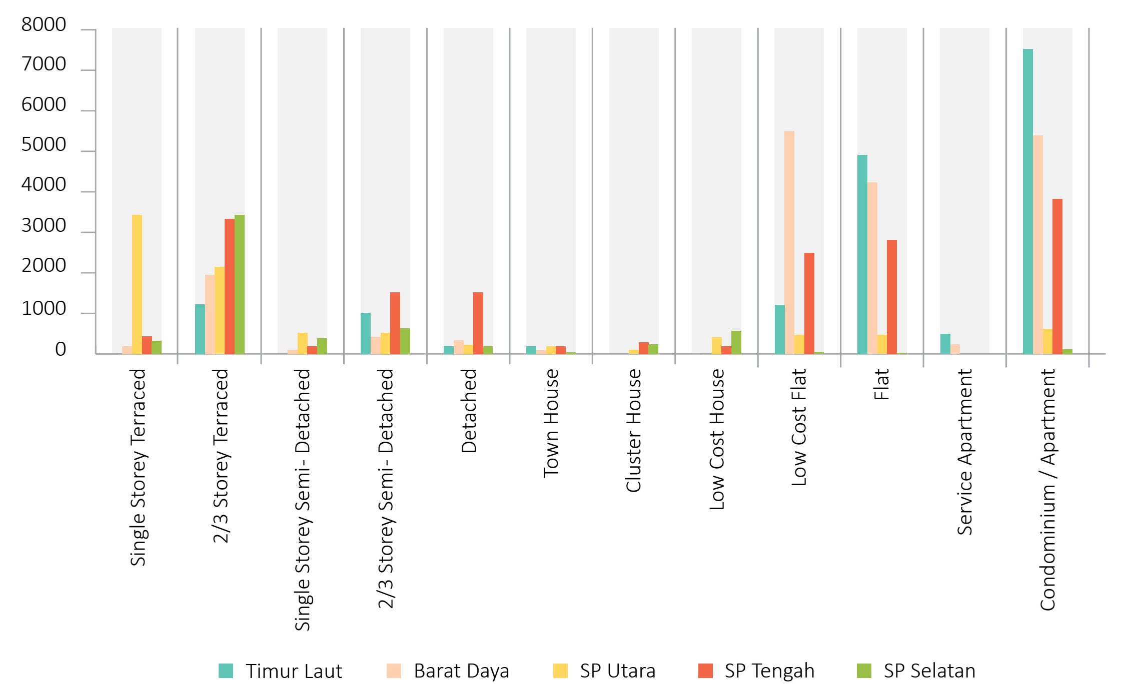
Due to the scarcity of land on the island, more landed housing projects would be on the mainland in the future. This is evidently shown by the declining number of landed units being built on the island, compared to the mainland. Both Central Seberang Perai and South Seberang Perai districts will be supplied with more than 3,000 2/3 storey terraced units each, while North Seberang Perai is scheduled to have more single storey terraced houses built.

The Southwest and Central Seberang Perai districts will host more low cost housing projects in the near future. For low-cost housing, low cost flats are planned predominantly in the Southwest district (5,493 units) on the island, and in Central Seberang Perai district (2,494 units) on the mainland. The reason developers have chosen the Southwest as a suitable district to build low cost flats should be rather apparent: available land is limited in the Northeast district, land in the Southwest district is generally cheaper, and the population is less dense here. The case for the mainland may be different, as more job opportunities can be found in Central Seberang Perai than the northern and southern neighbouring districts), therefore it makes sense for the developers to build more units there to meet demand. This also reflects the urban build up in Central Seberang Perai.



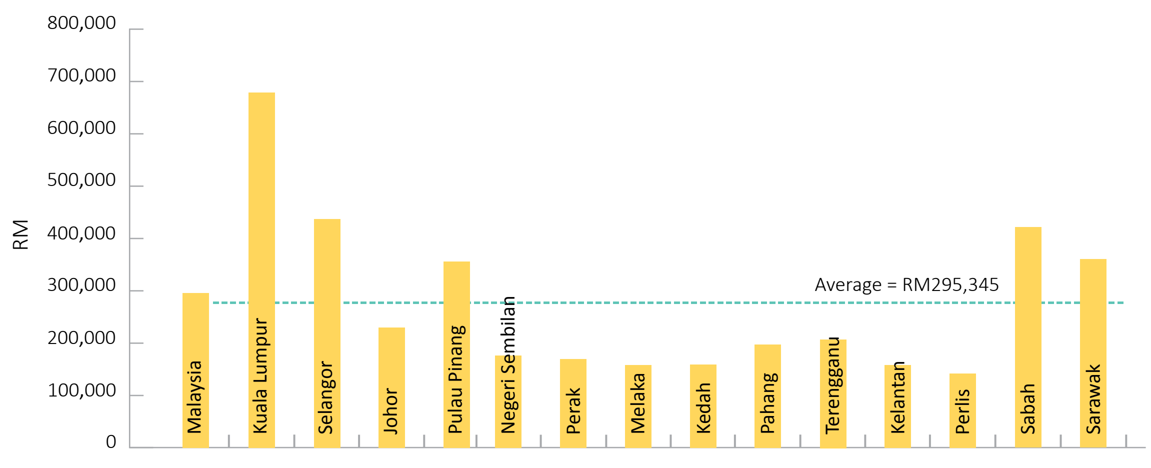
Source: Residential Property Stock Report Q4 2014, NAPIC. Preliminary.

Figure 6.5: Total planned supply of residential units by type in Penang (Q4 2014)



Source: Residential Property Stock Report Q4 2014, NAPIC. Preliminary.

Figure 6.6: Planned supply of residential units by type in Penang (Q4 2014)



Source: The Malaysian House Price Index Q4 2014, NAPIC.

Figure 6.7: Average All House Price in Malaysia (Q4 2014)

The average house price in Penang is higher than the national average but lower than Kuala Lumpur, Selangor, Sabah and Sarawak. Penang is ranked fourth in GDP per capita (RM38,356)[43] in 2013, after Kuala Lumpur, Labuan and Sarawak. The average house price should be correlated with GDP per capita, a proxy measurement of the income level of a resident in that particular state. The national average house price in the fourth quarter of 2014 is RM295,345 (Figure 6.7). Penang's average house price is RM355,374, which exceeds the national average by approximately RM60,000. However, the average house price in Penang is not only substantially lower than the house price in Kuala Lumpur, but also lower than in Selangor, Sabah and Sarawak.

[43] GDP by State (2005-2013) report, Department of Statistics Malaysia. Page 4.

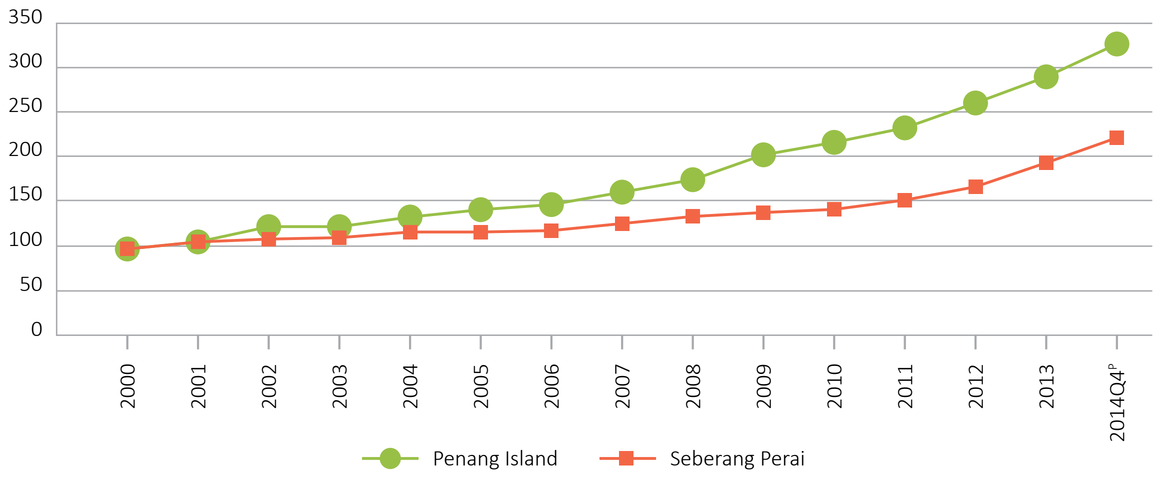
Shorefront Condo have combined Penang most attractive value for property buyer into one - waterfront and heritage.

The rapid rise of housing prices in Penang has raised affordability concerns for many. To reduce speculative activities, the state government has introduced new housing policies. Housing prices in Penang, be they terraced or high-rise units, was on a rising trend (Figure 6.8 and Figure 6.9). The Malaysian House Price Index has risen steeply over the past three years. In terms of year-to-year growth, the price index has increased by more than 10% for terraced houses on both the island and mainland since 2012. For high rise units, while price growth in Seberang Perai is still modest, the price index is accelerating upwards for the units in Penang Island since 2011: the year-to-year price growth in 2013 and 2014 is 19.0% and 18.3% respectively. This raises concerns among first-time home buyers on whether the pricing for such housing units has been inflated due to speculation.

In response, the Penang state government had introduced new housing policies[44] from 1 February 2014 to curb speculation. All low cost (up to RM42,000) and low-medium cost (up to RM72,500) homes cannot be sold within 10 years from the date of the Sales & Purchase Agreement (SPA). Affordable housing units purchased after 1 February 2014, which is priced RM400,000 or less on Penang island and RM250,000 or less in Seberang Perai, cannot be sold within five years from the date of the SPA. Property owners can appeal to the state government, and their properties may be sold to registered and qualified purchasers. A further 2% levy is also imposed on the seller for all properties sold within three years from the date of the SPA (which the owner signed after 1 February 2014). However, the 2% levy is not applicable to affordable housing. For purchases made by non-citizens, all property sales will be subjected to a 3% levy on the transacted price. They are only allowed to purchase properties in Penang in excess of RM1 million, or RM2 million if it is a landed unit on the island.

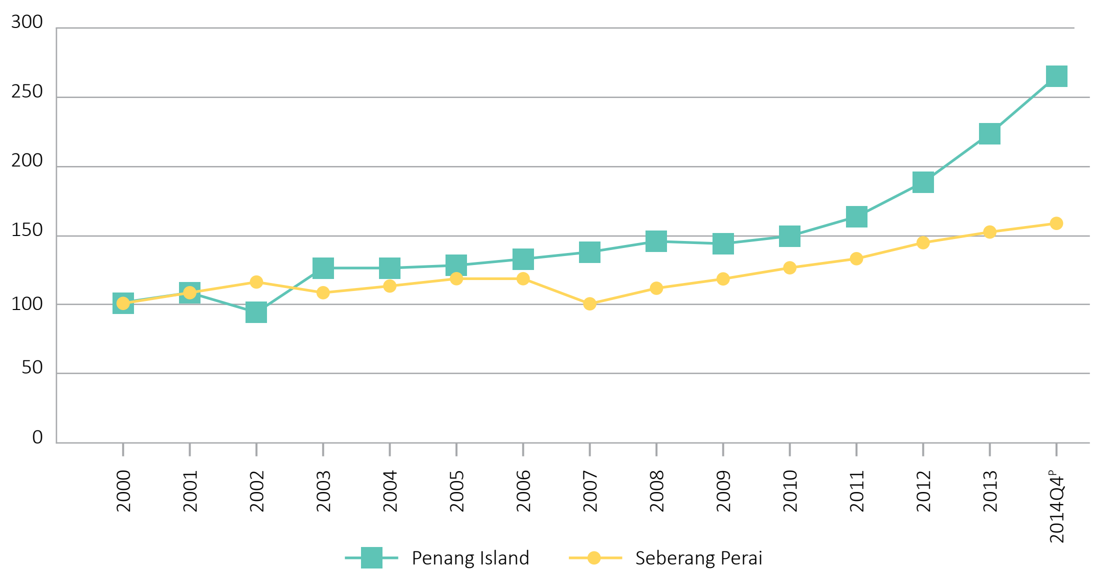
[44] Press Statement By Penang Chief Minister Lim Guan Eng In Komtar, George Town On 8 Dec 2013. http://limguaneng.com/index.php/2013/12/08/new-housing-rules-from-1-february-2014-to-protect-penang-from-being-adversely-affected-by-a-property-bubble-enbmcn/

The federal government has also announced in Budget 2014 that the Real Property Gains Tax (RPGT) is to be revised to 30%[45] for properties held for three years or less, up from the previous rate of 15%, if sold within two years. The federal government has also decided to scrap the practice of the developer interest-bearing scheme (DIBS), in an effort to normalise the property market and prevent speculators from bulk buying, because buyers do not need to service the loan to secure the property before the project is completed.



Source: *The Malaysian House Price Index Q4 2014, NAPIC*
Note: P Preliminary

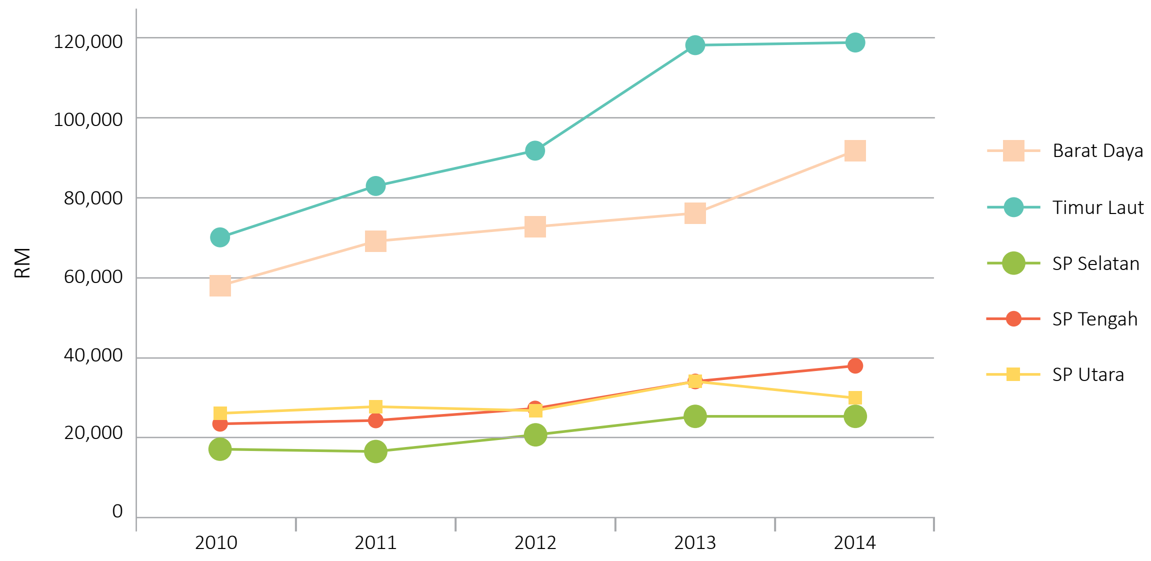
Figure 6.8: Penang terraced house price index (Year 2000 = 100)



Source: The Malaysian House Price Index Q4 2014, NAPIC.
Note: P Preliminary

Figure 6.9: Penang high-rise unit house price index (Year 2000 = 100)

[45] The 2014 Budget speech, by Prime Minister and Minister of Finance Dato' Sri Mohd Najib Tun Abdul Razak , 25 October 2013.



Source: Residential Property Stock Report Q4 2010-2014, NAPIC.

Figure 6.10
Median sales price for 2/3 storey terraces in Penang, 2010-2014

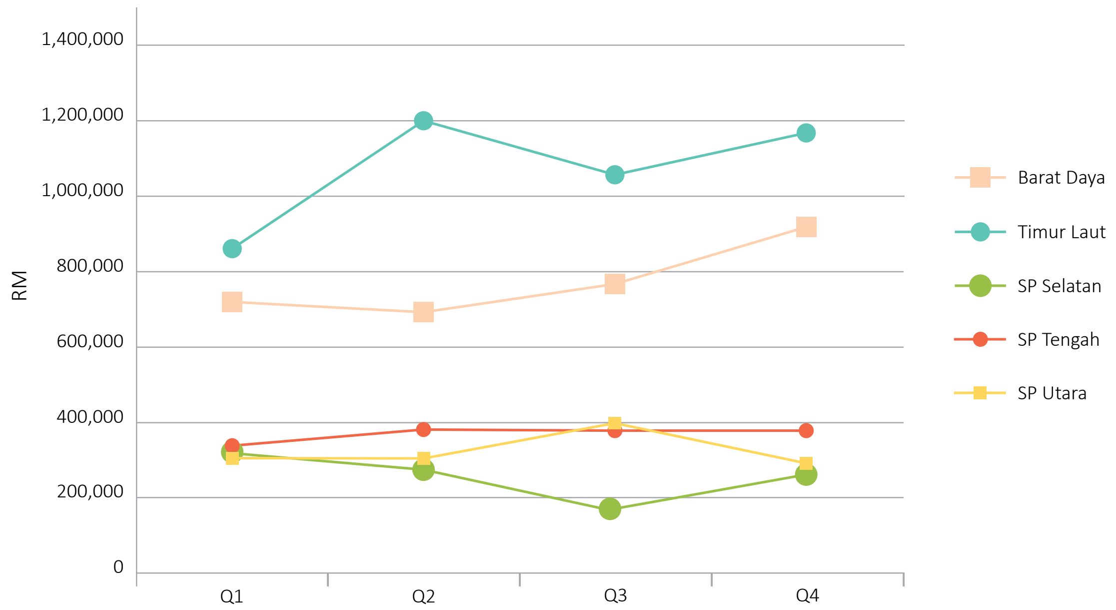
Over the past five years, the median sales prices for 2/3 storey terraced houses on the island increased by about RM300,000 – RM400,000 (Figure 6.10). In Seberang Perai, the median sales price has also steadily increased, though not at the same pace as the island. During the same period, the median sales price for condominiums also doubled in the Southwest and Central Seberang Perai districts, and almost doubled in the Northeast and South Seberang Perai districts (Figure 6.12). Going by the previous definition of affordable housing, apart from the condominium units on the mainland, the current median sales prices of these two unit types indicate that they are mostly beyond "affordability" for many households.

The property prices for 2015 might slow down, but are unlikely to fall. Looking at the quarterly analysis for the last year (Figure 6.13), the price trend remains upward. Thus, it seems that prices would remain steady for the current year.

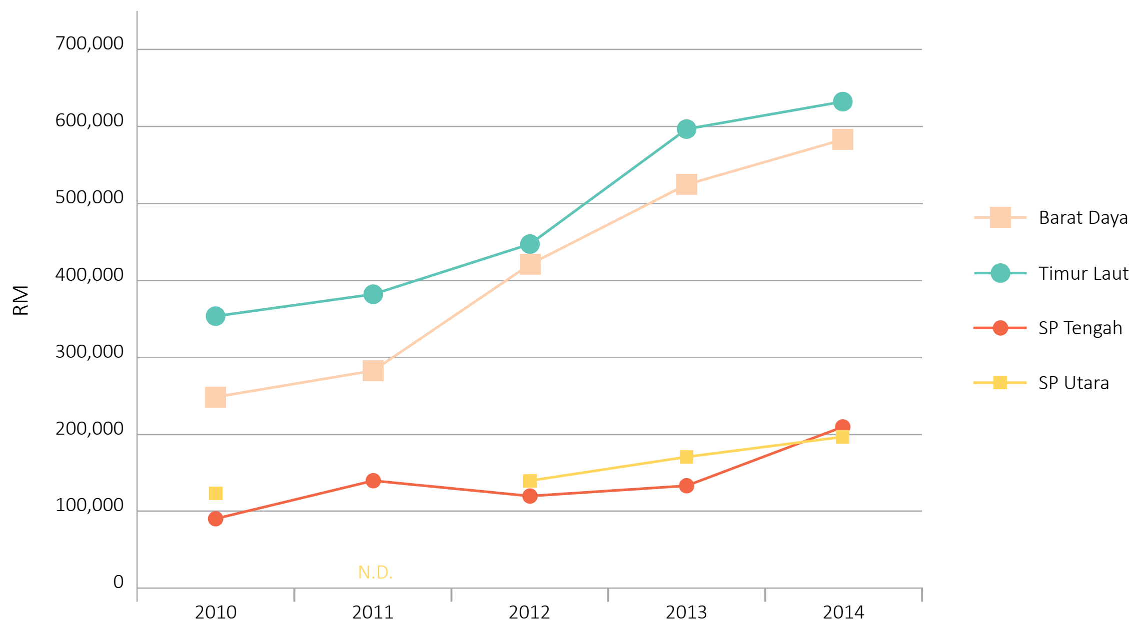
Consultancy firm CH Williams Talhar & Wong estimated that, following the implementation of the Goods & Services Tax (GST) in April 2015, total construction cost would increase by 3.97%[46]. This is a conservative estimate, excluding the consequences of higher operational and labour costs in addition to the GST. This sets the tone for rising house prices, at least for the current year.

[46] WTW Property Market 2015 report, by CH Williams Talhar & Wong. Page 8-10.

Figure 6.11
Median sales price for 2/3 storey terraces in Penang, 2014 Q1-Q4



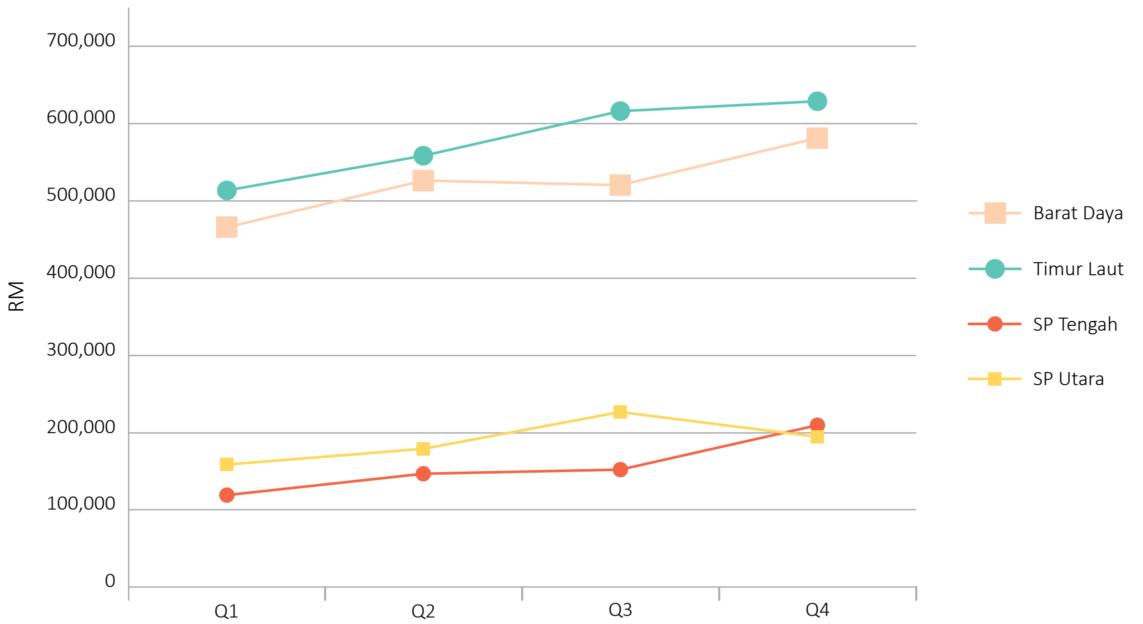
Source: Residential Property Stock Report Q4 2010-2014, NAPIC.



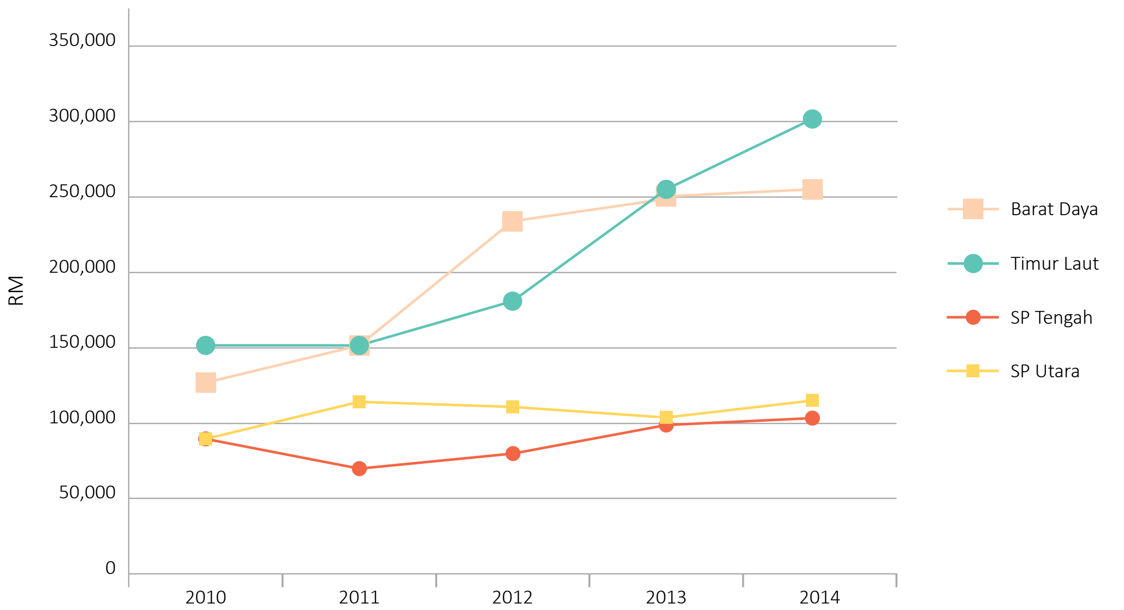
Source: Residential Property Stock Report Q4 2010-2014, NAPIC
Note: N.D. - No Data

Figure 6.12
Median sales price for condominiums in Penang, 2010-2014

Figure 6.13: Median sales price for condominiums in Penang, 2014 Q1-Q4



Source: Residential Property Stock Report Q4 2014, NAPIC.

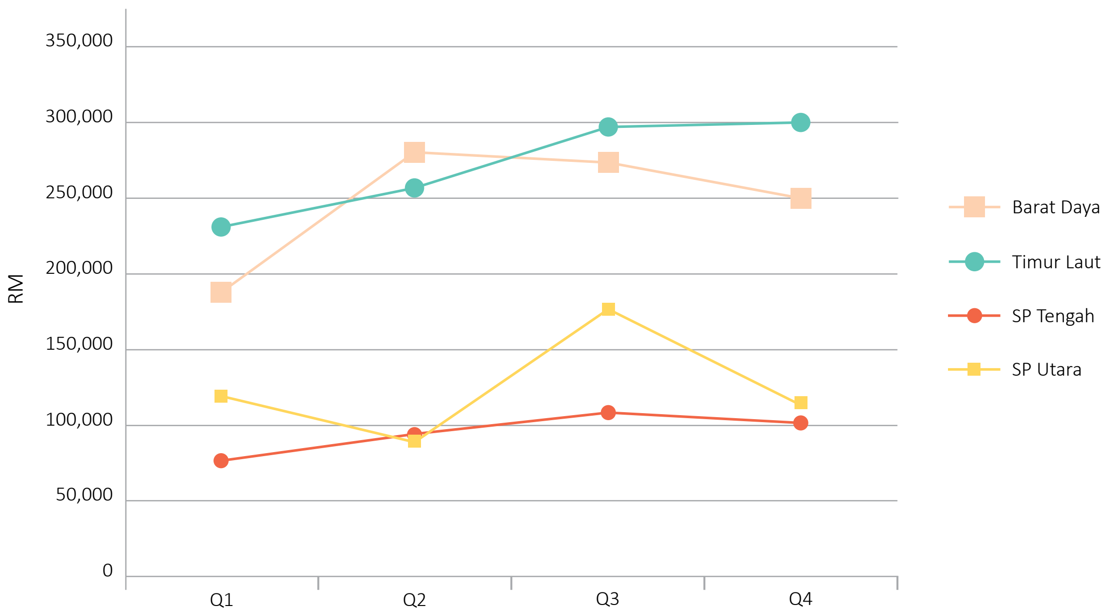


Source: Residential Property Stock Report Q4 2010-2014, NAPIC.

Figure 6.14
Median sales prices for flats in Penang, 2010-2014

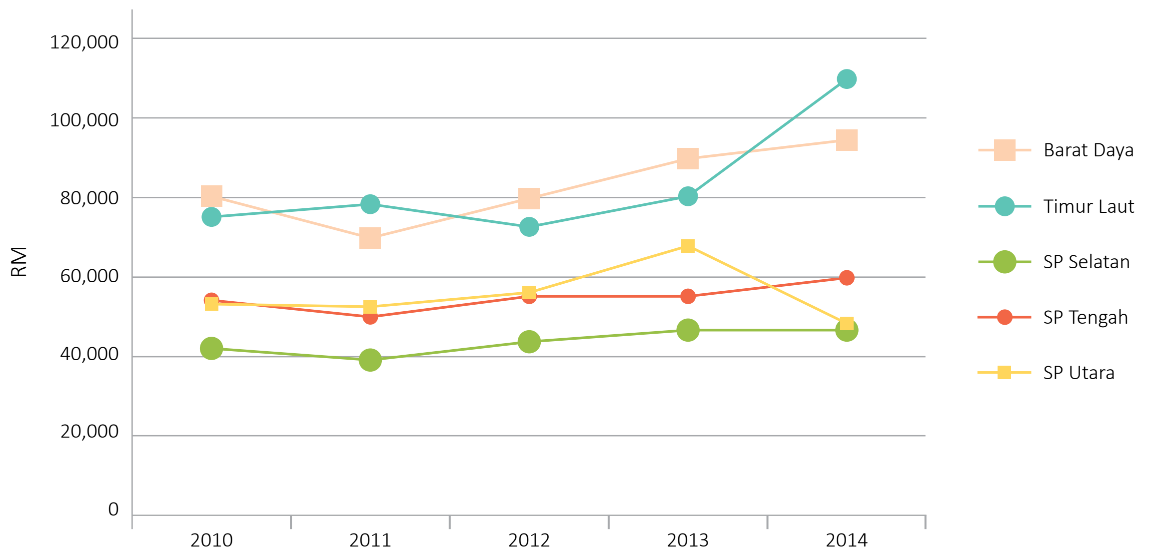
Meanwhile, for affordable housing units (e.g. flats), the median sales price has doubled over the past five years for both the Northeast and Southwest districts, while prices were stable for Central and North Seberang Perai (Figure 6.14). In 2014, the median price for flats in the Northeast has gone up by more than RM60,000 (Figure 6.15).

The price for low cost housing is rising and is stretching affordability. For low cost flats, the median price has been slowly but gradually increasing over the past five years (Figure 6.16). The price difference for these units in the Northeast between 2013 and 2014 is significant, amounting to around RM30,000 (Figure 6.17). These low cost flats are worth as much as normal flats on the mainland at the current rate.



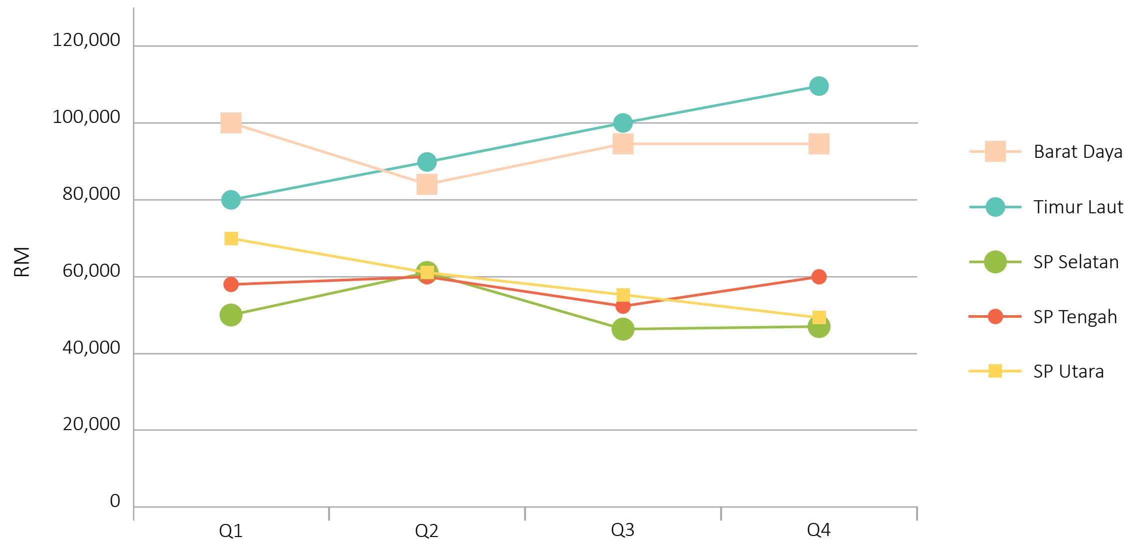
Source: Residential Property Stock Report Q4 2014, NAPIC.

Figure 6.15
Median sales price for flats in Penang, 2014 Q1-Q4



Source: Residential Property Stock Report Q4 2010-2014, NAPIC.

Figure 6.16: Median sales price for low cost flats in Penang, 2010-2014



Source: Residential Property Stock Report Q4 2014, NAPIC.

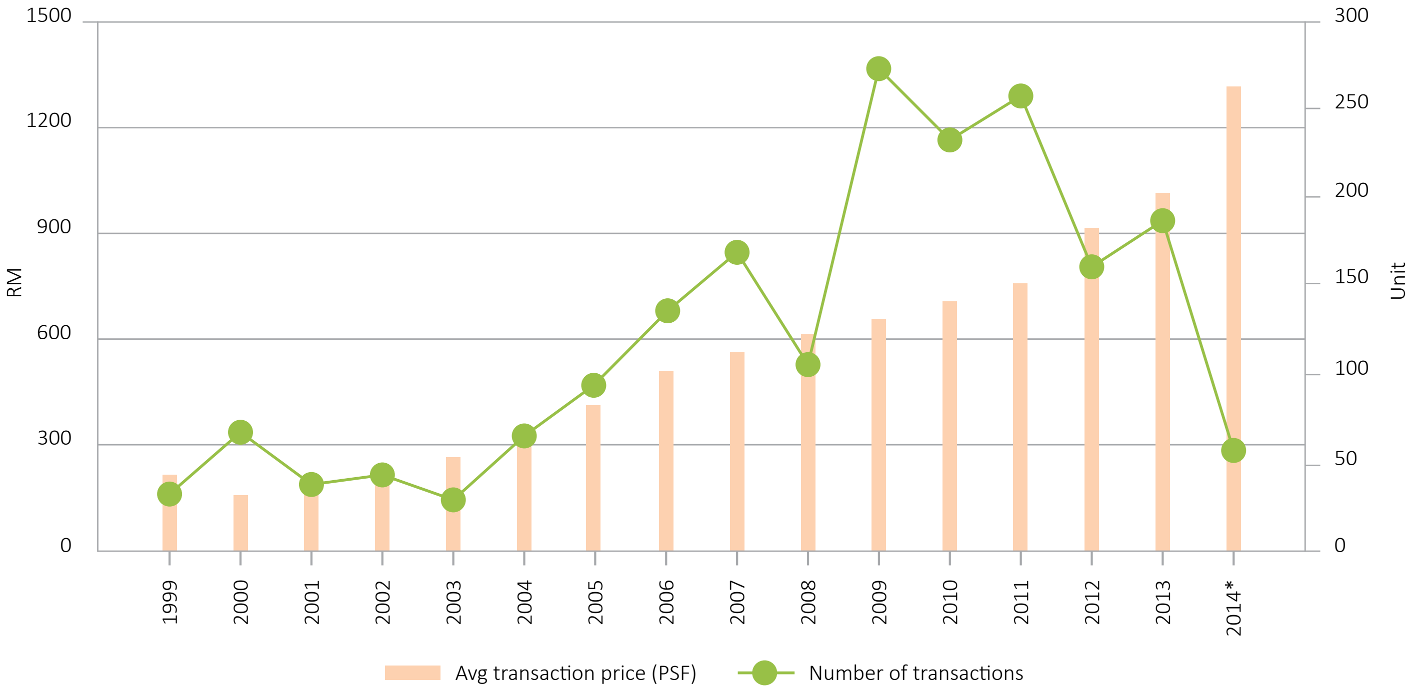
Figure 6.17: Median sales price for low cost flats in Penang, 2014 Q1-Q4

"Old is gold" in George Town, but the city is changing fast as new businesses replace traditional businesses. George Town is estimated to host 189,700 residents. However, the number of residents in the historical enclave has been in constant decline over the past 10 years. The interest and demand for pre-war properties shot up following George Town's UNESCO World Heritage listing in 2008, but have begun to dip since 2012, as seen in the number of transactions (Figure 6.18). Nevertheless, the average price of transaction has gone up since the repeal of the Rent Control Act in 1999. The per-square feet (psf) price for the pre-war properties climbed rapidly since 2011 and reached a new peak last year at RM1,300 psf.

In recent years, George Town has seen an exodus of some house or shoplot owners or tenants from the historical city centre, making way for tourism-related businesses such as hotels and cafes. From 2009 to 2013, the number of households and residents has fallen 231 and 734 respectively within the core zone of George Town World Heritage site[47]. During the same period, the number of hotels and restaurants/bars has increased by 41 and 46 respectively. This suggests that more and more pre-war properties have changed use. The price hike for such properties can therefore be explained by growing commercial interests. The number of properties listed for sale is expected to go down in the future, as supply becomes more limited.

High demand for housing has forced developer to build upwards in Penang Island due to land scarcity.

[47] George Town World Heritage Site: Population and Land Use Change 2009-2013, prepared by Geografia. The report was commissioned by Think City Sdn Bhd, in partnership with George Town World Heritage Incorporated and Jabatan Perancangan Bandar dan Desa Penang.



Source: Henry Butcher Malaysia (Penang) and NAPIC.

*Note: * Transaction price for 2014 is the average for H1, number of transaction is until September 2014.*

Figure 6.18
Average price and number of transactions for pre-war properties

Housing needs have to be fulfilled by property developers amidst a challenging time for Malaysia's economy. Based on NAPIC statistics on Planned Supply in Penang, developers have shown no sign of slowing down in 2014.

For 2015, in conjunction with reduced private consumption due to the GST and an uncertain business climate coupled with the weakening Ringgit, Malaysians' interest in purchasing properties would likely be dampened, instead making properties more attractive to foreigners. Thus, with lower aggregate demand, demand in the housing market is expected to become weaker. Also, as Bank Negara has tightened up housing loan eligibility, the number of qualifying prospective home buyers will be adversely affected.

Several market cooling measures had been rolled out and enforced by the state and federal governments targeted at property speculators, which should reduce the number of transactions, leaving only serious and eligible home buyers.

In the current economic climate, property prices will not increase significantly in the face of declining housing demand. But it is wishful thinking to assume that the prices will soften, especially for new housing projects due to higher operational and construction costs already borne by developers.

Penang's housing market will be in a healthy state as long as housing demand from middle and lower-income families remains robust. More affordable housing is definitely needed for Penang's growing population. Housing finance is the main challenge for many households, as salaries have not caught up to the rise in house prices. The current high year-to-year property price growth rate in Penang is not sustainable. Surplus stock of high priced condominiums and terraced houses, if left unsold, will impact housing developers negatively in the future. Thus, developers might want to reduce new supply in such categories. Instead, they should refocus and build the right types of housing at the right price to meet demand.

CREATIVE INDUSTRY

Penang's foray in the creative industry

Hin Bus Depot, the new center for artists, artisans and the like-minded to gather in Penang with adorable displays at its compound.

The importance of a creative economy is undeniable – it generates income, jobs and export earnings based on the practical ingenuity of individuals and groups.

According to UNESCO's 2013 Creative Economy report, a total of US$624 billion in world trade was generated by creative goods and services in 2011, which has more than doubled since 2002. Likewise, the export of creative goods and services saw a strong growth in developing countries, registering an average growth of 12.1% annually over the same period[48].

[48] "World trade of creative goods and services reached US$ 624 billion in 2011", Culture(s) with Vivendi, 13 December 2013, http://cultureswithvivendi.com/en/de-facto/world-trade-of-creative-goods-and-services-reached-us-624-billion-in-2011/

Malaysia's Creative Multimedia Cluster has contributed significantly towards economic growth in recent years. With the support of the Malaysian Multimedia Super Corridor (MSC), it produced RM7.1 billion of revenue by 436 companies in 2014. While this cluster makes up only 4% of MSC's export sales, its increase was 18% in 2014. The news media sub-sector performed particularly well with a growth rate of 44.6%, bringing an average revenue growth of 28% in each company in 2014 compared to in 2013. Creative multimedia content (CMC) accounted for the largest revenue at 90%; it comprises TV, film and visual effects, and an example of the creative multimedia cluster's success is Astro Shaw's movie, *The Journey* – the highest grossing film in 2014[49].

The Penang state government uses its limited resources to develop the creative industry – a fairly young but promising economic activity in Penang. Though high impact creative content development programmes have been laid out as a priority growth sector in Iskandar Malaysia in Johor and the Sabah Development Corridor[50], Penang is fast catching up in creative industries by setting up a creative space. Following the launching of Malaysia's first Business Process Outsourcing – Information Technology Outsourcing (BPO-ITO) hub, a total of 100,000sqft of building space within the UNESCO World Heritage Site is being set up to develop the Creative Animation Triggers (CAT) programme. CAT seeks to enhance local capacity and capability to produce world-class content by inviting local and international studios to set up in George Town's heritage buildings, including Wisma Yeap Chor Ee on Gat Lebuh China, and the Lebuh Victoria and Jalan Magazine areas. The creative animation services comprise post-production, animation, game development, e-learning and interactive content-based services[51].

After Ernest Zacharevic's "Little Children on a Bicycle" mural went viral, more creative murals can be found at the alleys of George Town World Heritage Site.

[49] "MSC Malaysia reports strong 2014 with 11% revenue growth," Multimedia Development Corporation, 11 May 2015, www.mdec.my/media-centre/news-releases/msc-malaysia-reports-strong-2014-11-revenue-growth

[50] Eleventh Malaysia Plan 2016-2020.

[51] "Signing of Wisma Yeap Chor Ee as a Creative Animation Triggers (CAT) Hub", InvestPenang, www.investpenang.gov.my/files/investment-updates/16/CAT%20WYCE%20Write%20up%20-%20(21-7-2014).1418980054.pdf

Penang has horizontally expanded its economic activities to include Creative Multimedia Content. It attracted over 10 CMC companies that produce mobile games, digital art design and animation, including Akeetoons, Game Pro and LandArt. Penang also attracted other local studios that have been producing for international clients such as Nelvana, EA, Microsoft and Bandai Namco to set up operations in Penang[52]. A total of nine higher learning institutions (IHLs) in Penang offer creative multimedia courses; an IHL and Penang Skills Development Centre (PSDC) also plan to provide training on Adobe Photoshop skills, industry standards and game production in the future[53]. This initiative is also in line with the knowledge-based clusters in the Eleventh Malaysia Plan, where physical hubs within the city agglomerate industry-specific firms and talent, particularly for the creative content, ICT and professional services industries. A creative cluster adds to the attractiveness of Penang; it raises quality of life and brings cultural and creative economic values by creating jobs and income. It will not only stimulate the economy; it will also raise the international profile of Penang.

Coupled with the expansion of 3D animation, Penang is confident that local game developers, particularly in computer animation and game engineering, can bring the growth of creative industry to the next level. To kick off Penang's creative multimedia industry, the approximately 36,400sqft Wisma Yeap Chor Ee, a majestic colonial heritage building, has been leased to the Penang Development Corporation (PDC) for a 30-year period from property owner Wawasan Open University to spearhead CAT. The building will be used as office space to house creative and technology companies by offering accelerator, incubation and co-working space. Set to be completed in the third quarter of the year, it intends to promote the interactive connection between science and CMC industries among students and new start-ups[54].

[52] "Penang Creative Multimedia Content Industry", InvestPenang, www.investpenang.gov.my/files/investment-updates/17/creative_multimedia_content_pcics_penang.1418980366.pdf

[53] "Penang Creative Multimedia Content Industry", InvestPenang, www.investpenang.gov.my/files/investment-updates/17/creative_multimedia_content_pcics_penang.1418980366.pdf

[54] The building of Wisma Yeap Chor Ee consists of three floors. Penang Science Council will be located on the ground floor with 12,609sqft, while the CAT (11,895sqft) and the Creative and Technology Accelerator (11,895sqft) are respectively located on the first and second floor of the building.

Box 7.1: Creating Penang @CATa

@CAT accelerator programme or @CATa is an initiative created by the state government. The main objective for the programme is to promote creative and technology start-up and entrepreneurship as the new engine of growth for Penang. @CATa plays a role in nurturing new talents in creative and technology related industries as well as to rejuvenate George Town heritage as a creative and technological start-up zone.

To foster a vibrant start-up ecosystem, @CATa has built working spaces a conducive business environment, and carefully planned out programme and resources to maximise the success rates of new start-ups.

The first location selected for the programme is Georgetown's heritage building and warehouses – offering state-of-the-art interior while maintaining its old cultural charm. The programme also chose Wisma Yeap Chor Ee to host the start-ups as accelerator, incubation and working space. The building will house 30 seats for accelerator programmes and 72 seats for incubation/co-working space. It will be equipped with good business environment such as high speed broadband. At the building, start-ups can reach out to various industrial experts and big tech MNCs for guidance in actualising their goals. Access to a strong supply chain is also readily available to ease entrepreneurs in establishing a sufficient and efficient business line.

@CATa will focus mostly on creative and technology related industry such as in the area of web application, enterprise software, mobile app, e-commerce, Internet of Things (IoT) etc. Other than that, @CATa also seek to accelerate the establishment of high-tech start-ups in the state via managerial programmes on business development, funding, marketing and other strategic partnership opportunities. Fostering both tech-related and managerial-related skills are essential to build up a tech-business, hence play a big part as a determining factor for start-up successes.

Several events had and will been organised as part of the initiative. A Tech Chillax Sunday, an alpha start-up campus and a coding class were held in the previous months. Barcamp – a platform for Penang's largest annual meetup among tech community – was be held on July 2015 to build connection between entrepreneurs and industry leaders.

<u>There are four stages in @CAT accelerator programme or @CATa:</u>

1) **Pre-accelerator programme**
   - Entrepreneurs will undergo programming and coding classes to equip themselves in skills such as HTML, PHP, Python and HTML5
2) **Accelerator Space**
   - Entrepreneurs will be housed in a given space to work on their start-ups.
3 **Incubation/co-working space**
   - Graduated start-ups from the accelerator programmes will be given an incubation and co-working space to foster growth for a maximum of two years
4) **Business space**
   - Successful young companies born from the accelerator programme will be given a priority to relocate in state-owned buildings with subsidised rental fees.

Box 7.2: Some Asian examples

Hong Kong: Asia's leading creative city

Hong Kong's creative industries focus on key areas such as film, television, music, design, architecture, comics, animation, games and digital entertainment. According to the Hong Kong 2014 Economic Background and 2015 Prospects, cultural and creative industries contributed HK$106.1 billion to its GDP in 2013 with a growth rate of 8.4%, representing about 5.1% of its total[55]. It had a total of 37,000 cultural and creative industry-related establishments, with over 200,000 practitioners involved[56].

To increase the innovation capacity of the economy, a number of centres for financial assistance has been developed to support creative industries. "Create Hong Kong" was established to promote the development of creative industries and oversees the infrastructure for promoting design, i.e. the Hong Kong Design Centre (HKDC), providing funding support for the Design Incubation Programme. It acts as a one-stop centre for location filming for both local and overseas films, and is also responsible for the regulatory control of special effects materials for film shooting and theatrical performances.

The Creative Smart Initiatives provides financial support to projects with strategic direction to drive creative industries. As of May 2013, a total of about HK$600 million was made available to encourage small and medium-sized entrepreneurs to carry out design-related projects. In addition, some HK$300 million was injected into the Film Development Fund in July 2007 to offer financial support for the long-term and healthy progress of the local film industry. The objectives are to encourage more commercial investment in film productions, as well as create a larger mass of film activity and more employment opportunities.

Design-wise, the Design Incubation Programme administered by HKDC began to offer financial funding in 2006 and aims to nurture design start-ups at the InnoCentre. It helps new start-ups to enhance their competitiveness through the provision of office space, training programmes, consultancy services, mentorship and financial support over a two-year incubation period.

Singapore: Creating an Asia creative hub

As Singapore seeks to move towards a knowledge-based and culturally vibrant economy, a Creative Industries Working Group (CIWG) was formed under the Economic Review Committee in December 2001 to look into how arts, business and technology can boost Singapore's competitive advantage in the creative economy. The Creative Industries Development strategy prepared by CIWG in 2002 underlined that Singapore should harness its greatest resource: the creative capacity of its people.

[55] www.hkeconomy.gov.hk/en/pdf/er_14q4.pdf

[56] "Hong Kong: The Facts", Information Services Department, December 2015, www.gov.hk/en/about/abouthk/factsheets/docs/creative_industries.pdf

A number of strategies have been undertaken to foster this. First, Singapore capitalises on its people by providing education and training to improve creative skills as well as by importing talent and expertise; for example, Singapore attracts top foreign arts schools such as New York's Tisch School of the Arts and Milan's Domus Academy. Second, Singapore also develops creative spaces to ensure arts and culture activities are everywhere, as can be seen from the upgrade of old cultural facilities and colonial buildings to provide sufficient spaces for creative clusters. Third, creative products are also made available in terms of policies to promote and manage the cultural and creative industries[57].

According to CIWG's Creative Industrial Development Studies, three major interlocking industry-specific plans have been implemented to propel the growth of creative industries. Renaissance City 2.0 aims to turn Singapore into a highly innovative and multi-talented global city for arts and culture, with features which include a new museum of modern and contemporary art and the promotion of arts and cultural entrepreneurship. Design Singapore aims to turn Singapore into a global cultural and business hub for the design of products, content and services, and showcases the works of Singaporean designers on international platforms. Media 21, on the other hand, aims to turn Singapore into a global media city with a thriving media ecosystem and strong international extensions[58].

Its effects have been remarkable: based on the latest statistics, Singapore's creative sector contributed 4.4% of its total GDP and 4.6% of its total employment[59].

Creative industry in Penang (likewise worldwide) lacks sustainability - both in terms of financial and talent.

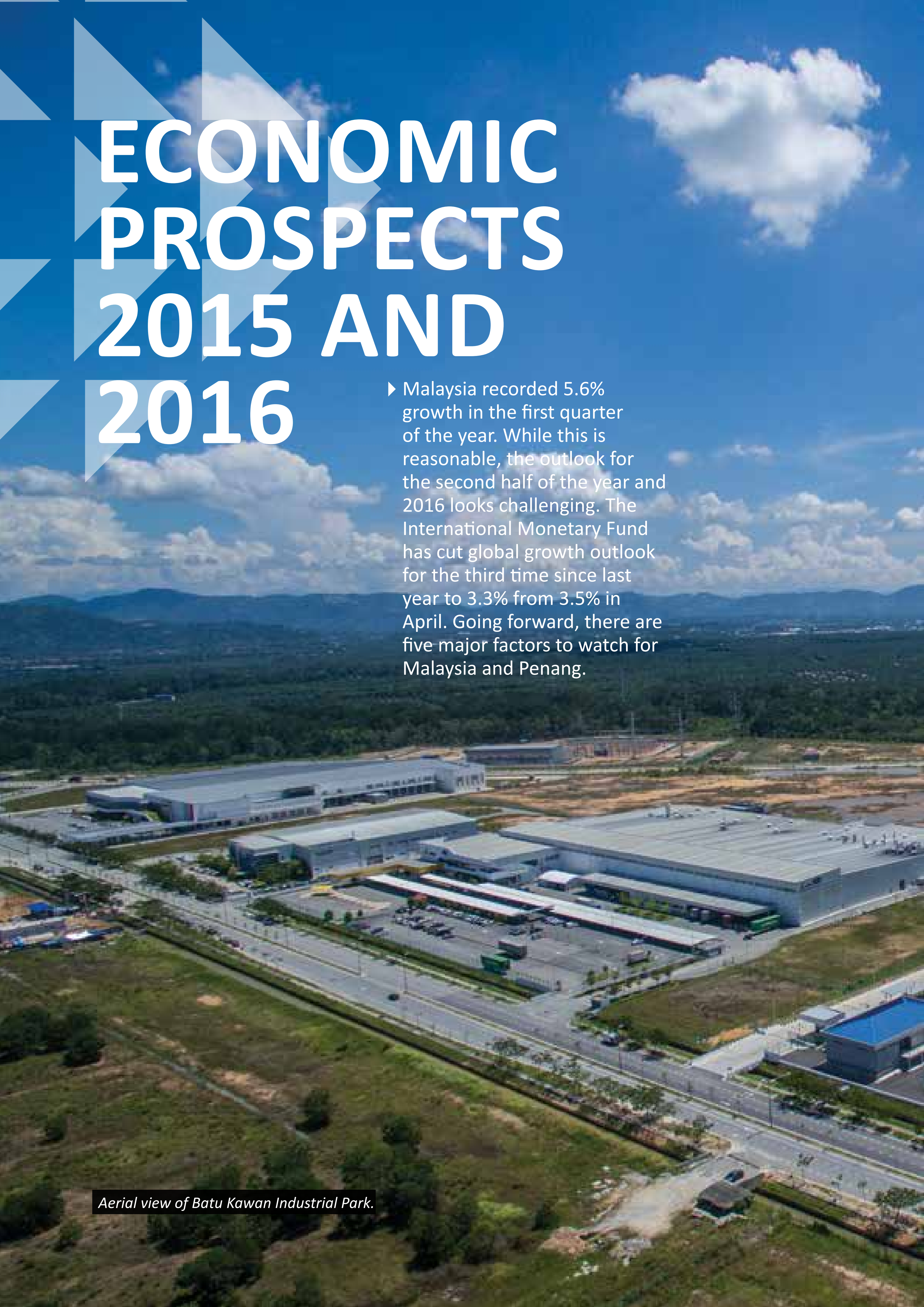
[57] Lily, K, "Singapore & the Making of a 'Creative City'", Chinese Creative Industries Forum. Macau, June 2, 2012.

[58] Workgroup of Creative Industries, Creative Industries Development Strategy: Propelling Singapore's creative economy, Economic Review Committee, Singapore, September 2002.

[59] "Creative Industries & MICA Scholarships Award Ceremony 2011", Design Singapore, 4 August 2011, http://www.designsingapore.org/who_we_are/media_centre/media_releases/11-08-04/creative_industries_mica_scholarships_award_ceremony_2011.aspx

ECONOMIC PROSPECTS 2015 AND 2016

Malaysia recorded 5.6% growth in the first quarter of the year. While this is reasonable, the outlook for the second half of the year and 2016 looks challenging. The International Monetary Fund has cut global growth outlook for the third time since last year to 3.3% from 3.5% in April. Going forward, there are five major factors to watch for Malaysia and Penang.



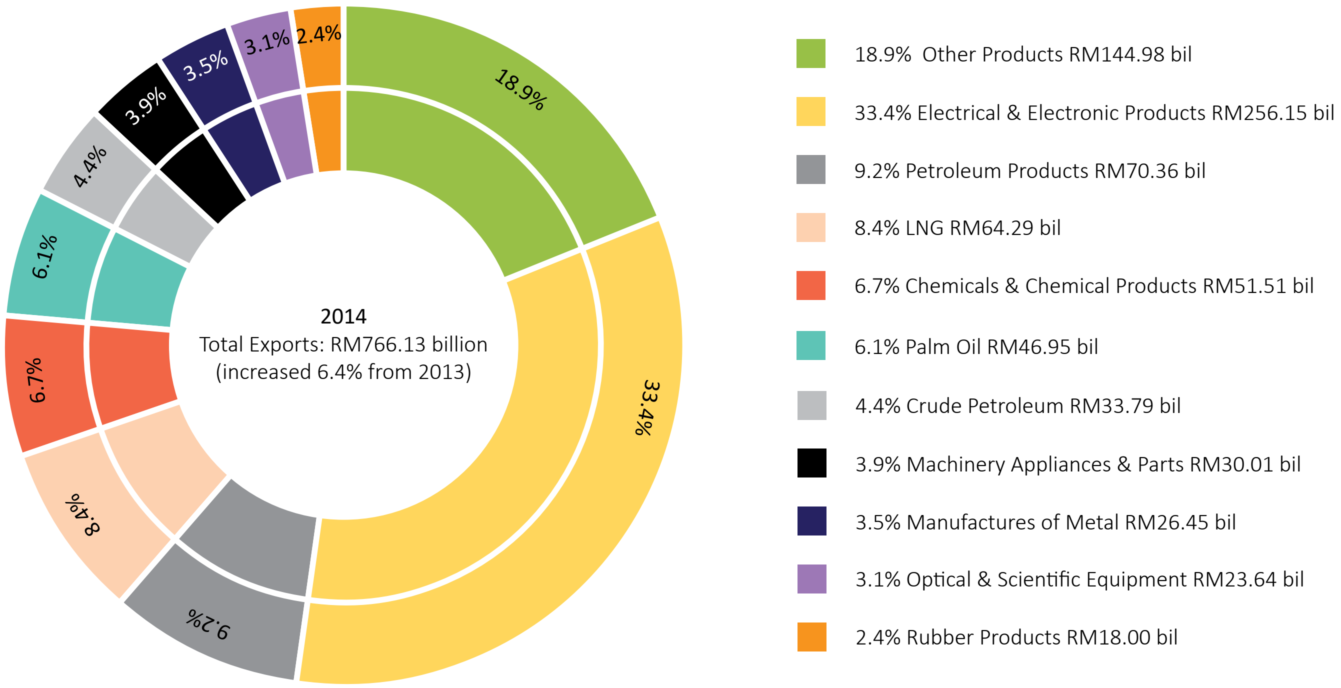
Aerial view of Batu Kawan Industrial Park.

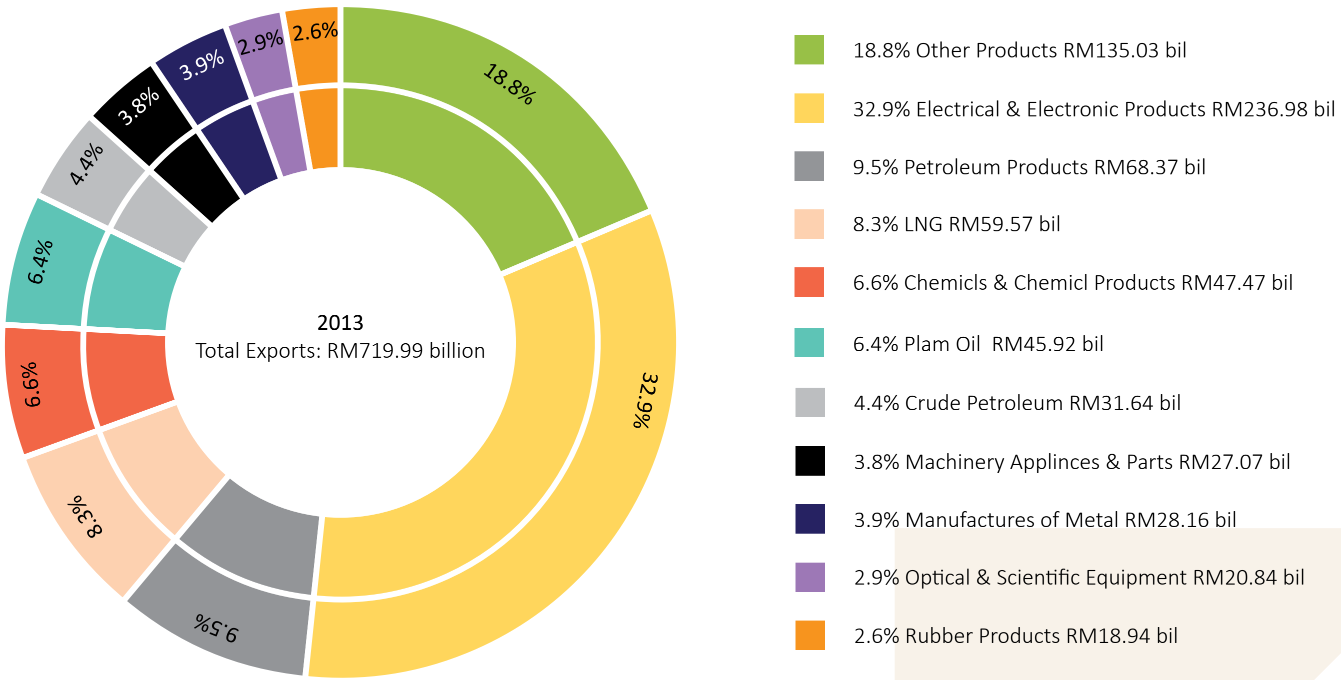
Malaysia has an open economy and exports a range of products.

As can be seen from Figure 8.1, being an oil producer/exporter and a significant liquefied natural gas (LNG) exporter, Malaysia is affected by the global crude oil price. Although Malaysia remains a small net oil exporter, Malaysia is a sizable LNG exporter, where LNG prices track global crude oil prices closely but with about six months lag. Malaysia's current fiscal budget has been drawn up based on crude oil price at US$55 per barrel.

A lower oil price in the past six months (see Figure 8.2) did not have the expected impact of driving US shale oil producers into reducing output and hence oil prices to increase. Instead, these shale oil producers have adapted by squeezing the oil services providers for lower costs and have focused on the lower cost shale oil fields. Of course, the low interest rate environment in the US has helped these shale oil producers to fund their capital expenditure. Therefore, with low crude oil price, Malaysia's fiscal balance will be more constrained as PETRONAS contributed RM73.4 billion in total to the federal and state governments of Malaysia in 2013 (PETRONAS Annual Report, 2013).

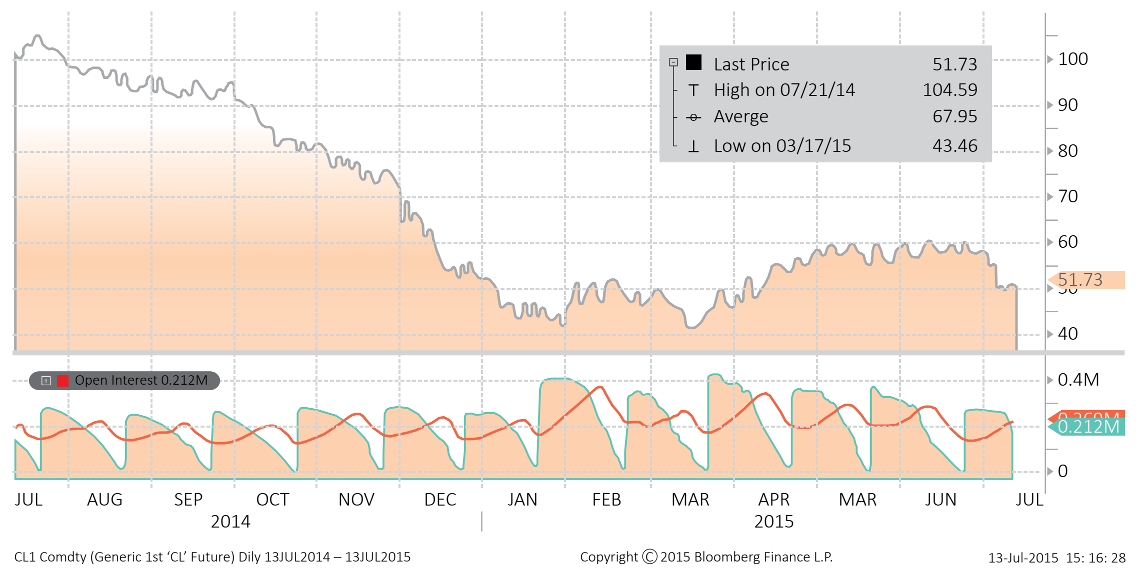
▸ Impact of fall in oil and gas prices





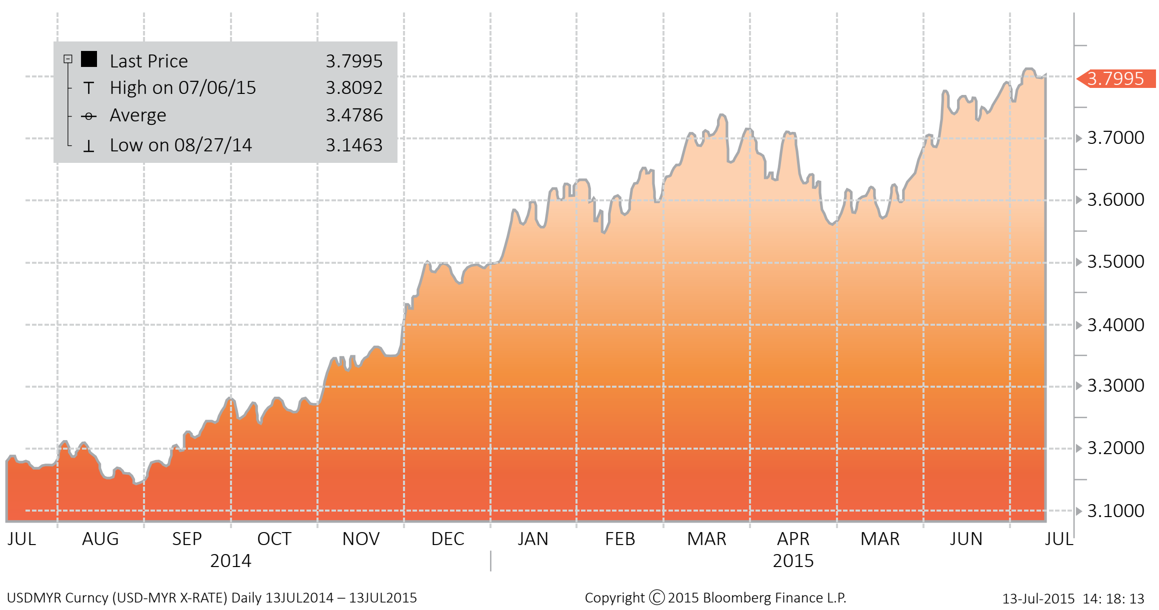
(Top & Bottom)
Figure 8.1
Major export products of
Malaysia, 2013 and 2014

Source: MATRADE, Department of Statistics Malaysia.



Source: Bloomberg.

Figure 8.2
Crude oil price (West Texas Intermediate)



Source: Bloomberg.

Figure 8.3
USDMYR exchange rate

At the center of the iconic Penang (first) Bridge structure on a (rare) day when traffic is smooth.

A study by Penang Institute (www.penanginstitute.org/oilprice2015) has found that if USDMYR appreciates slightly to 3.75 and crude oil trades at US$55 per barrel in 2015/2016, PETRONAS's profitability (as measured by EBITDA) might fall to RM72 billion; and dividends might fall to RM19 billion (vs. RM123 billion and RM27 billion respectively in 2013). In a rosy case (where crude oil trades at US$70 per barrel and USDMYR depreciates to 4), PETRONAS' EBITDA would fall to RM98 billion but RM26 billion dividends payment might be possible. However, in a bad case (where crude oil trades at US$40 per barrel and USDMYR trades at 3.5), PETRONAS' EBITDA would fall to RM49 billion and dividends might fall by half to RM13 billion.

As crude oil price also has an impact of crude palm oil prices (Malaysia's other major commodity export), a close watch on the crude oil price is important to determine Malaysia's economic prospect in 2016 plus the extent of further subsidy rationalisation in the Budget 2016. Given Penang has no major industry involved in oil and gas or palm oil, the impact on the fall in crude oil price is likely minimal. The effect is likely to come from changes in USDMYR that will affect Penang's export sector.

Depreciating currency

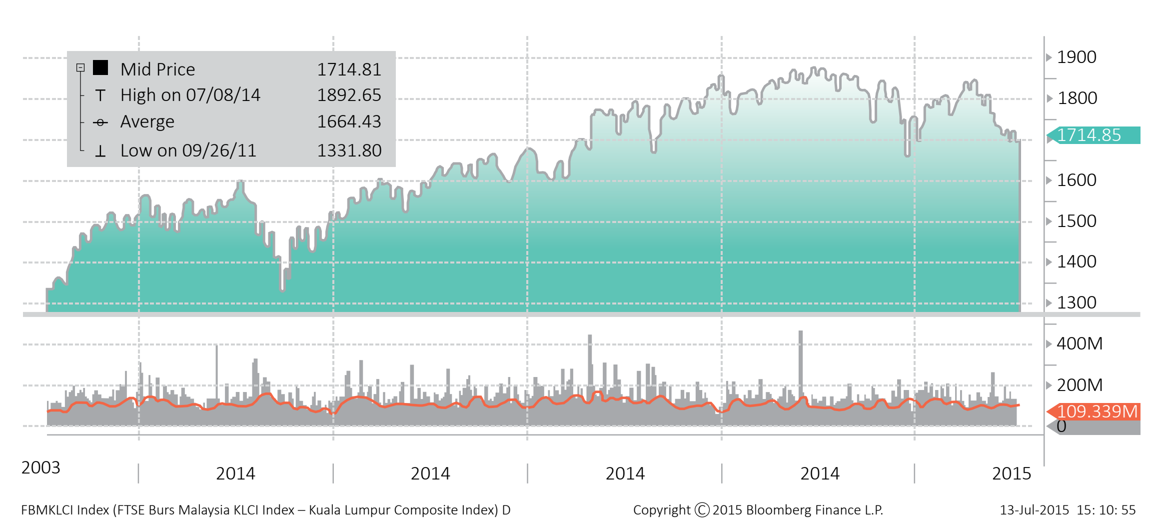
A depreciating Malaysian Ringgit affects the different segments of the economy differently (Figure 8.3). In a nutshell, exporters with foreign currency denominated revenue and Ringgit cost base would benefit; while importers will be negatively affected. However, as shown in the previous paragraphs, a depreciating Ringgit helps contain the fallout from the decline in the oil price via PETRONAS' contribution and provide support to crude palm oil price which is traded in Ringgit. Therefore, with Malaysia having a fairly diverse and open economy, the Ringgit depreciation might not be as bad in terms of maintaining trade competitiveness in a world of Quantitative Easing and Abenomics.

Besides, by allowing the currency to adjust, Bank Negara would be less compelled into hiking interest rates. This is important as Malaysian household debt to GDP ratio has reached 87% in 2013, with the lower income households more levered. The introduction of the GST from 1 April 2015 has increased the cost of living for households. So, a depreciating Ringgit alleviates the pressure of possible higher debt servicing cost, which will chip away households' spending power more. Nevertheless, a falling Ringgit would affect households differently. Higher income households are likely to be affected more due to higher proportion of imported goods/services in their consumption basket. So although lower income households pay a higher percent of their income in GST than the highest income households according to a study by Penang Institute (www.penanginstitute.org/gst), a depreciating Ringgit would hit the highest income households more than the lower income households.

Therefore, with a large segment of exporters in the manufacturing sector and with tourism being important in Penang, Penang is likely to benefit from the depreciating Ringgit as Penang-made manufactured goods and Penang as a tourist destination will become more attractive to foreigners.

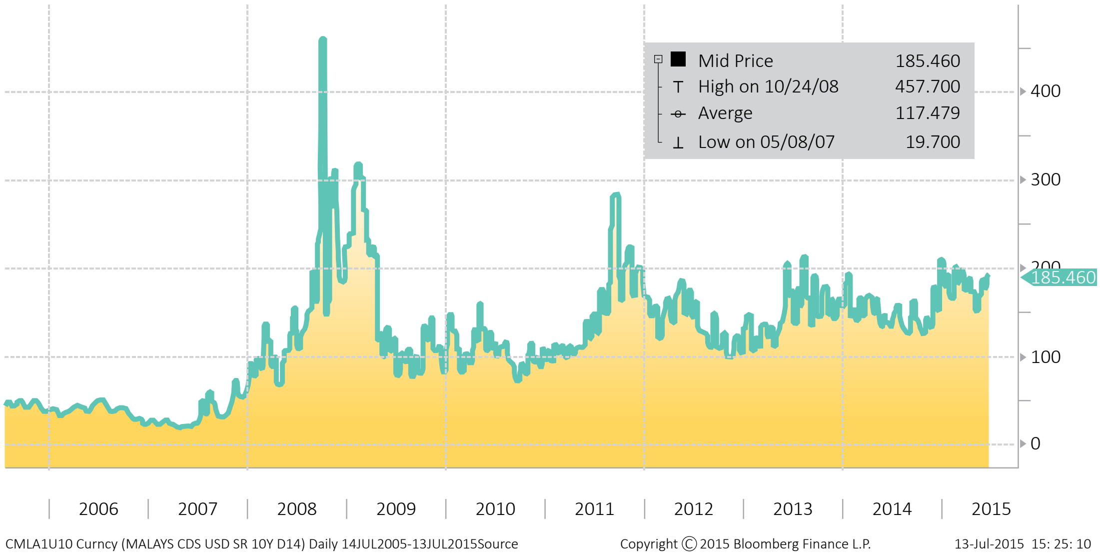
The negative headwind from 1MDB

Although Malaysia should be able to cope with a depreciating Ringgit, the effect of the 1MDB scandal would be more extended. The long term implications of 1MDB is strongly negative to Malaysia as it raises investors' doubts on the credibility of the clean governance and the extent of the government's contingent liabilities. The short term effects are higher volatility in the markets as foreigners sell down their equity investment in the stock market (see Figure 8.4) as well as higher costs of insuring Malaysian debt against default. The latter can be seen by the rising Credit Default Swaps in Figure 8.55.



Source: Bloomberg.

Figure 8.4
The benchmark FBMKLCI



Source: Bloomberg.

Figure 8.5
Malaysia credit default spreads

The 1MDB scandal is likely to affect confidence in Malaysia, and by extension, trust in Penang. This will affect the long term attractiveness of Malaysia and Penang as an investment destination. Besides, 1MDB has created political uncertainty in the continuation of the current Prime Minister.

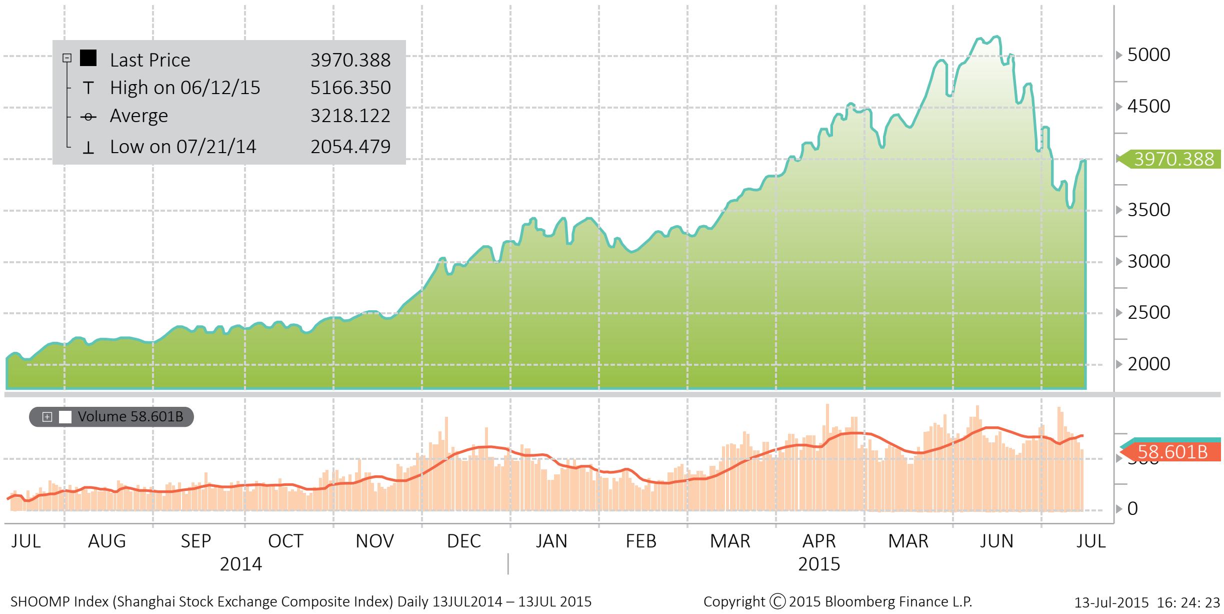
Impact of Chinese slowdown

Being the second largest economy in the world and a major manufacturing powerhouse, China has significant influence over the various export products of Malaysia, e.g. in crude palm oil (China is the biggest importer of the vegetable oil) and in electronics items (China and Malaysia are both part of the global supply chain). Amidst the rebalancing of the economy from investment towards domestic consumption, China has to cope with a slowing property market, mounting debt and a stock market bubble and crash. In recent months, the Chinese stock market has risen substantially and then crashed equally spectacularly (Figure 8.6). After an infusion of liquidity and imposition of policies (e.g. a halt in initial-public offerings, setting up a stock-buying fund of US$19.3 billion and a ban on state-owned companies selling shares of listed units), the stock market has stabilised. While these policies have provided a backstop to the panic selling, the danger of moral hazard is ever so present.

The Chinese stock market has big influence over the Chinese consumption pattern as there are about 90 million individual investors in the market. Besides, the stock market's fall restricts Chinese companies' ability to raise money for new investment or to ease their mountain of debt. With negligible palm oil industry in Penang, the impact of China is likely to come through trade and tourism from China.

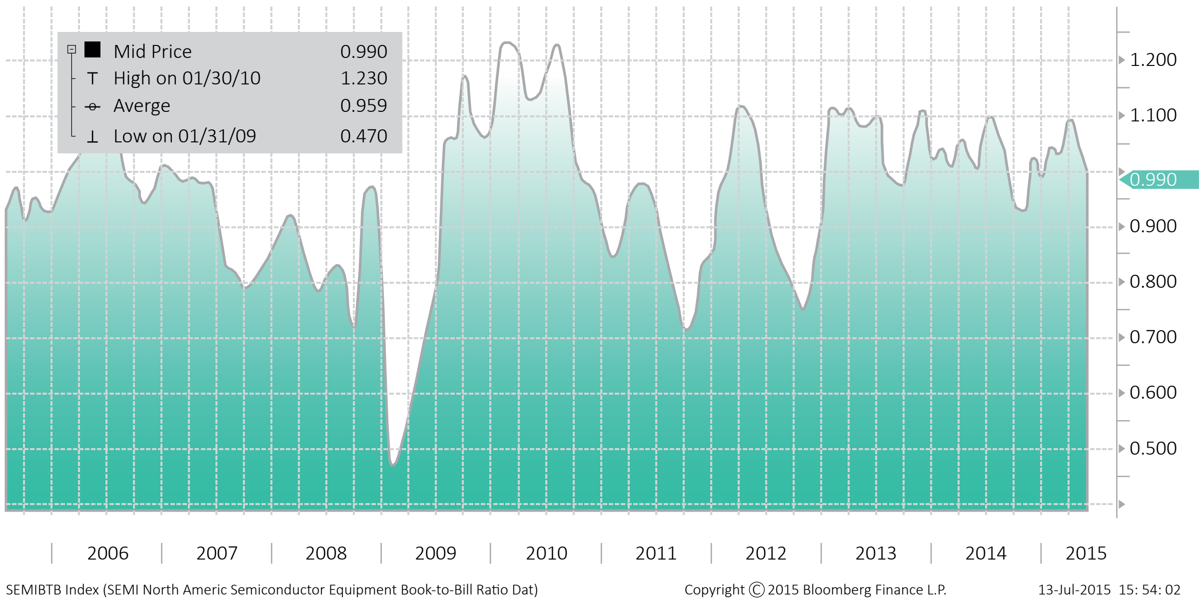
US economy recovering

The recovering US economy is as a double edged sword. On one hand, an improved US economy stimulates the consumption of many goods. For Malaysia, this will translate to higher demand of electronics and electrical items. As can be seen from the Book-to-Bill ratio in Figure 8.7, the industry has recovered since the deep inventory drawdown in 2009 and has been above one most of the past one year. This is a good sign for the electronics and electrical exports industry in Malaysia.



Source: Bloomberg.

Figure 8.6
Shanghai Stock Exchange Composite Index



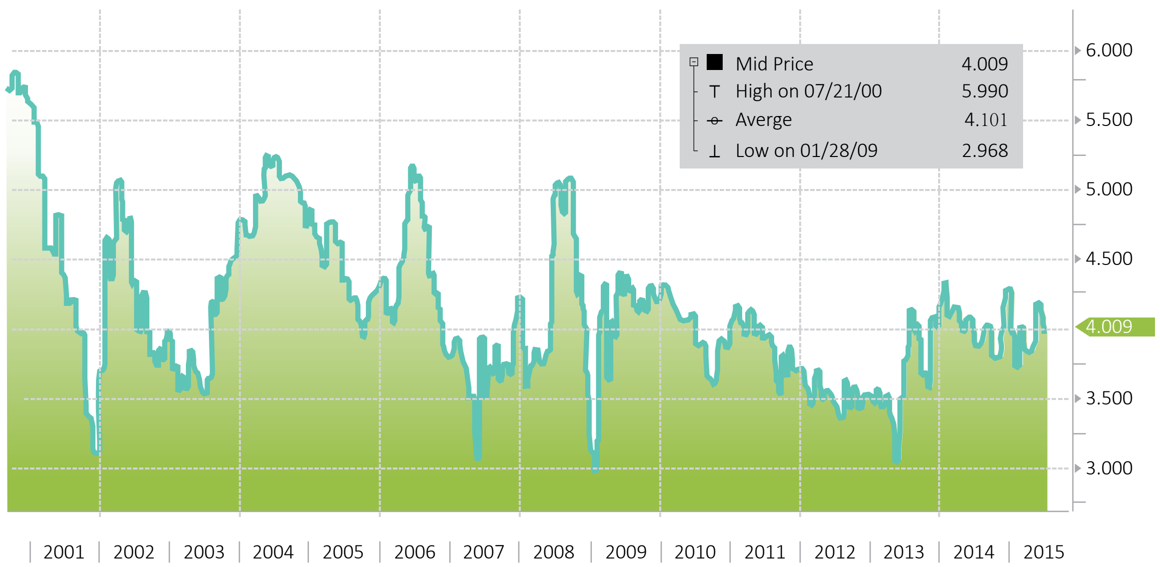
Source: Bloomberg.

Figure 8.7
SEMI North America semiconductor equipment book-to-ratio

However, a recovering US economy also poses risks to Malaysia. Since the commencement of Quantitative Easing, a vast amount of liquidity has flowed to emerging markets, including Malaysia, in search of yield. With Malaysia's 10-year-yield at about 4% (see Figure 8.8), this has attracted foreign capital to purchase Malaysia Government Bonds. Since 2009, foreign ownership of Malaysia Government Securities has climbed steadily to RM167 billion in June 2015 (see Figure 8.9), with only a blip when Fitch Ratings cut Malaysia's outlook to negative in 2013. Hence, since Fitch Ratings has upgraded Malaysia's sovereign rating to stable from negative on 1 July 2015, this overhanging factor has been removed and there is strong likelihood that foreign ownership of Malaysia Government Securities will continue to increase even more.

Although the influx of foreign capital has kept yield in Malaysia fairly low, the end of Quantitative Easing and the possibility of higher interest rates in the US poses the risk that when US interest rates rise, there might be a large exodus of foreign capital from Malaysia. This might have a negative effect on USDMYR if the exit is disorderly.

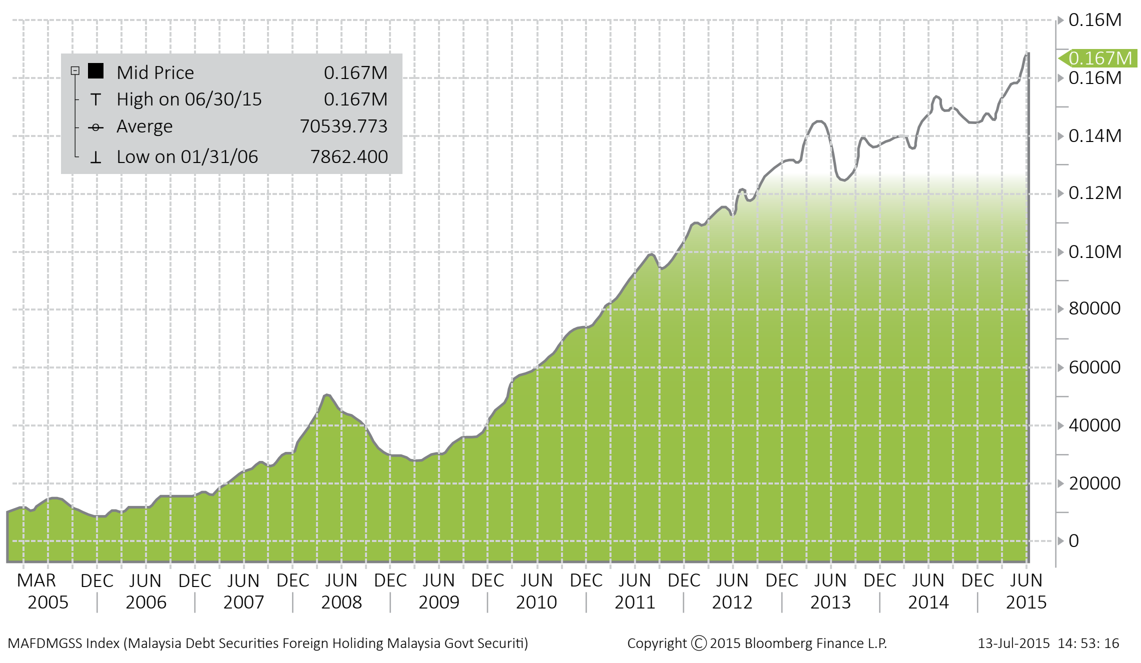
On a net basis, being an economy more open than that of Malaysia, Penang is likely to be able to reap the benefits of a US recovery. This benefit will likely come from higher demand for electronics and electrical products – of which Penang is a major exporter. Any rate increases in the US will have negative impact to Ringgit. If Bank Negara increases the local interest rates to defend Ringgit, then of course, Penang's economy would be affected.



MAGY10YR Index (Malaysia Govt Bonds 10 Yer Yield) Daily 14Jun2000 – 13JUL2015 Copyright © 2015 Bloomberg Finance L.P. 13-Jul-2015 15: 10: 55

Source: Bloomberg.

Figure 8.8
10-year yield on Malaysia Government Bonds



Source: Bloomberg, Bank Negara Malaysia.

Figure 8.9: Foreign ownership of Malaysia Government Debt Securities

Nightview of Jalan Magazine, George Town.

In conclusion, the abovementioned five factors affect Malaysia and Penang differently. With a more open economy, Penang's economy is likely to be affected by external factors more than local factors. A weaker USDMYR will benefit the large export sector in Penang and the tourism sector. Nevertheless, national issues such as the subsidy rationalising and 1MDB will affect Penang as well.

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