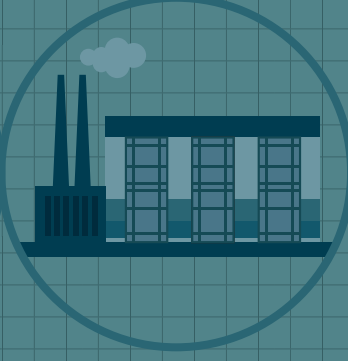
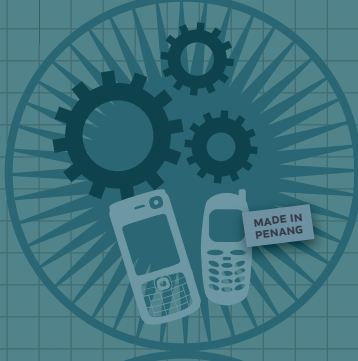
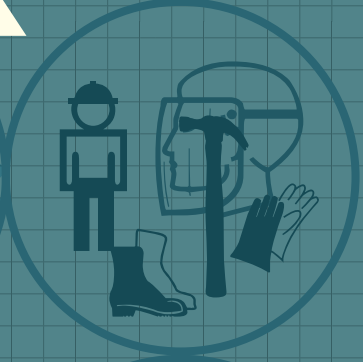
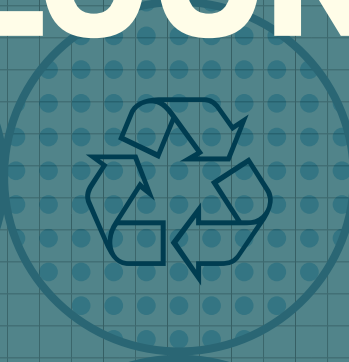
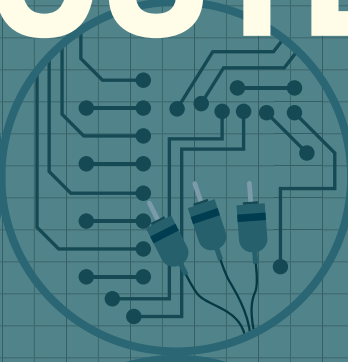
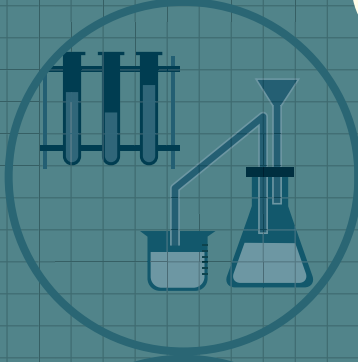
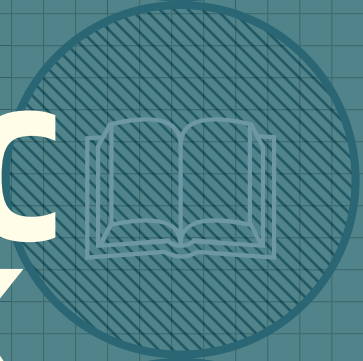


# PENANG ECONOMIC OUTLOOK

# 2011



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# Introduction



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In 2009, the Socio-Economic and Environmental Research Institute (SERI) decided that its aim to deliver “far-reaching and realistic policy solutions that would produce a fair, more inclusive and environmentally sustainable Penang” would be better served if more resources were put into publications.

Since then, SERI has thoroughly redesigned the *Penang Economic Monthly* ([www.penangeconomicmonthly.com](http://www.penangeconomicmonthly.com)) for popular distribution in Malaysia and Singapore; published the first book in its Penang Studies Series called *Pilot Studies for a New Penang*; and completed the *Penang Blueprint 2011–2015* as commissioned by the state government.

It also initiated an annual report titled *Penang Economic Outlook* ([www.seri.com.my/v3/files/SERI\\_2010\\_outlook\\_report\\_FA.pdf](http://www.seri.com.my/v3/files/SERI_2010_outlook_report_FA.pdf)).

What you are now holding in your hands is thus not only the second in that ambitious series, but a key element in SERI’s attempt to engage a wider audience in the planning of Penang’s future.

This booklet essentially presents forecasts for the coming year as well as summary reports on key sectors in the state economy. These are authored by SERI’s staff and other experts affiliated to it. Their analyses are based on the latest available hard data, as well as information and insights gathered through SERI’s veritable network comprising government departments, academic institutions, non-government organisations and interested individuals.

In line with SERI’s aim to bridge various sectors of state and society, to promote sustained dialogue about state policy and to disseminate scholarly analyses, statistical information and the latest research findings to the public and private sectors, *Penang Economic Outlook 2011* is authored in accessible but precise language.

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# The economy of Penang

By Chan Huan Chiang

## Growth in an uncertain global economy

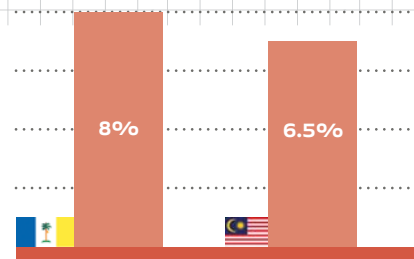
International news on the economy these days are filled with cautionary statements. China's export advantage over the US has for years helped fund the latter's budget and current account deficits. This has led to an undervalued Yuan that further fuelled the trade imbalance. Outsourcing production to the East has, however, led to job losses in the US, dragging down consumption levels and threatening much of the world's economy, which is inextricably linked to the US in trade and finance.

While the world searches for ways to manage the broken economy, economic news for Penang and the rest of Malaysia is on a high note. The economy in Penang is expected to complete 2010 with nearly eight per cent growth compared to 6.5% for Malaysia.

The centrepiece to such upbeat sentiments is the announcement of the Economic Transformation Plan (ETP) on October 26 by the Prime Minister. This is an RM1.4tril investment adventure for the next decade to make the final sprint towards Wawasan 2020, or Malaysia's goal of achieving developed nation status, with per capita income doubling from current levels to US\$15,000. The ETP roadmap fills 600 pages with targeted investments identified as Entry Point Projects (EPPs), all part of 12 National Key Economic Areas (NKEAs).

The development strategy is not only about money, but as alluded to in the 10th Malaysia Plan (2011–2015) announced several months earlier, investments will have a city-building focus. The 10th Plan reported that Kuala Lumpur is eight times larger than the other Malaysian cities but remains small when compared to major cities in Asia. Hence the fact that much of the investments will be located within the Klang Valley: an RM40bil Mass Transit System, RM10bil residential development in Sungai Buloh, RM5bil Warisan Merdeka that will site a 100-storey block to tower over the Petronas Twin Towers and RM26bil financial district in Kuala Lumpur. Other EPPs located in Kuala Lumpur include attracting top multinational companies, high skilled migrant workers, high speed rail to Singapore, river rejuvenation and greening, iconic places, pedestrian networks and solid waste management.

The only hiccup with such an ambitious endeavour is that nine-tenths of the funding will consist of private sector and foreign direct investments. The public budget has been running in deficit for a decade and the government's development expenditure has fallen behind more and more compared to the public operating budget. There is no way that Malaysia's public sector can afford any of the EPPs.



**The economy in Penang is expected to complete 2010 with nearly eight per cent growth compared to 6.5% for Malaysia.**

But for government to get the private sector to invest is not as ludicrous as it might seem. Malaysia's current account surplus is close to 15% of the gross domestic product (GDP) because of its huge national savings of 35% of GDP while domestic investments have trailed far behind at merely 20% of GDP. Textbook understanding tells us it is odd for an economy to have a public budget deficit while running a current account surplus, especially a huge one like in Malaysia. In theory, the government can increase taxes by the amount of the deficit and instantaneously balance the budget.

Malaysia's case is unique in that the sizeable savings are due to forced contribution to the employee's provident fund as a retirement security programme. Unable to tax from the surplus, the government has been borrowing from the private sector through its bond issues, thus running up a budget deficit which is essentially domestic borrowing, a lesser evil compared to foreign debt.

The ETP financing model is shrewdly imaginative. No need to divert private investment funds into public investments via taxes. Instead, just turn public investments into private investments by getting the private sector to make direct investments on key national projects. Meanwhile, if such investments are attractive due to their public endorsements, foreign direct investments will follow.

## Structural changes to the national accounts

If the ETP plays out as planned, national account figures in Malaysia will become structurally different in the years to follow. It is important to understand what such changes would mean to the country's economy. If private sector investments do come on board, domestic investments (private sector driven) have to rise significantly above the 20% mark

Chan Huan Chiang is a senior research fellow at the Socio-Economic and Environmental Research Institute (SERI)

while national savings will hold its 35% of GDP position.

This means that every single percentage rise of domestic investments relative to the GDP will mark an equal percentage fall in the current account surplus. This is a national accounting identity that no one can argue with. Economic reports made alongside the recent 2011 Budget announcement were thus confusing because they continue to expect double-digit current account surplus (equal to the investments over savings gap) numbers.

Meanwhile, Malaysia's capital outflow (that must mirror the current account surplus to achieve balance of payments) will also be proportionately reduced as offshore investments shift towards domestic investments. The Ringgit will strengthen in the process. The reason for low domestic investments over the years that result in capital outflow must have been due to relatively higher returns on investments (ROI) offshore. This helps explain why foreign direct investments have fallen over the years. The ETP has to therefore bring about high ROI for domestic direct investments so that the tide can change, shifting outflows into inflows.

As the ETP gets underway, huge falls that are to be expected of the current account surplus must not be interpreted as an economic problem; it isn't, so long as the current account surplus does not turn negative (it will if the ETP is entirely funded through foreign direct investments). One may have the notion that one reason for a huge current account surplus in Malaysia has been the building up of a sizeable foreign reserve to defend the Ringgit (as occurred during the last six months of 2008 when huge capital flights from foreign disinvestments did not shake the Ringgit's exchange rate).

Regardless, building huge reserves these days is risky since much of the reserve is in US currency, which is being driven down in value partly to boost US exports and create jobs in the US as part of its economic recovery plan.

Nonetheless, there will be much to do policy-wise, if private sector investments are to be depended upon to achieve the ETP. Between 2006 and 2009, private sector investments grew by merely two per cent a year. To fund the ETP, private sector investments have to grow six-fold at close to 13% a year.

There is a way to evaluate the rate of growth of investments. The amount which businesses invest will be in anticipation of the ROI. If cost of capital is, say, six per cent and ROI is nominally 13%, then the business makes an investment profit of seven per cent. The 13% of ROI shows up as the nominal GDP and if inflation is four per cent, then a nine per



Daniel Lee

**Marco Battistotti, chairman of the Malaysian Association of Hotels (Penang Chapter) (MAH-P) and the general manager of E&O Hotel.**

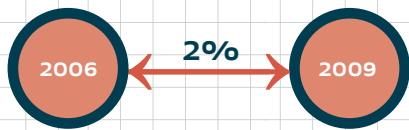
"In the 1970s and 1980s, Penang was considered *the* place to visit in the Far East. When the MAH-P made a trip to Hong Kong in 2009 to promote Penang as a destination, it was interesting to observe how most people over 40 knew Penang, but the younger generation didn't even know where it was on the map. So we have some work to do in this respect, especially as travellers and trade professionals are very aware of Langkawi and the various Thai islands."

"The island still remains a popular tourist destination and there are three key factors for this, the main one is the increase in budget airline flights which has brought an increasingly large number of independent travellers to the island. For the Penang-Singapore route, there are nine flights a day on this route served by five airlines. Penang also has strong regional air links with Thailand, Indonesia and Hong Kong, making it easier and easier for Asean tourists to come here."

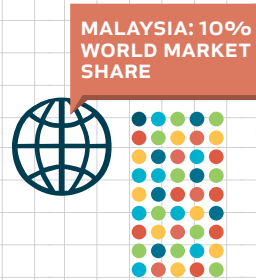
"The recent redevelopment of the Swettenham Cruise Terminal has added an extra entry point to the island and in 2009, 680,000 cruise passengers stopped in Penang; in 2010 the port expected 890,000 visitors. When you consider that the average cruise passenger spends anywhere between US\$85 and US\$115 a day when they come on land, that's not bad considering they are in Penang for less than 12 hours. Penang's the perfect destination for cruise passengers with limited time, the minute they step off the pier, they're already in a World Heritage Site."

"Finally, Tourism Malaysia's active courtship of the Middle-Eastern market has paid off. In 2009 Penang experienced an increase of 34,000 room nights from Middle-East visitors compared to 2008. After KL and Genting, Penang is next on their list of 'must-visits.'"

"As far as unlicensed beach activity and water sports operators in Batu Ferringhi go, it is not acceptable that tourists have to experience a free-for-all. Many of these operators are not fully recognised or insured and we need to regulate the operators to give our visitors a fun and safe experience."



Between 2006 and 2009, private sector investments grew by merely two per cent a year. To fund the ETP, private sector investments have to grow six-fold at close to 13% a year.



Malaysia has a 10% world market share; three of the world's five largest LED manufacturers have operations in Penang.

Direct investments, both foreign and domestic, are necessary for the creation of jobs, providing income opportunities for the citizenry. On the other hand, in the full employment (or labour shortage) situation currently experienced, direct investments that benefit only the investor and depend largely on imported labour offer little to increase living standards.

cent real GDP growth will be registered. Investments will not likely occur above the ROI to avoid investment losses.

Real GDP growth in Malaysia for 2011 is projected to be six per cent. The consumer price index has risen by less than two per cent, but the producer price index has gone up nearly seven per cent. Thus if on average inflation is at 4.5%, then nominal GDP growth should be slightly over 10%.

This implies that domestic investments will be unlikely to surpass the 10% mark if ROI is not to be exceeded. Boosting private investments will therefore also require pushing up the ROI in Malaysia's economy. If demand levels are lacklustre, then cost side management involving the removal of hidden transaction costs, including rent seeking, must accompany the development policy under the ETP as well.

#### Penang: Threats or opportunities?

The big question for Penang is how much of the possible ETP spin-offs will benefit the people of Penang. Development and growth are about people; so are investment projects, both public and private, that must involve people inputs and people benefits. Regardless of how money is to be invested, unless the local citizenry can participate in economic activities and enjoy the fruits of their outputs, growth numbers will make little sense. The many EPPs, therefore, if they are to be successful, must match the available human resource both in terms of numbers and technical skills. If not, parallel EPPs will be required to transform skills and numbers.

Direct investments, both foreign and domestic, are necessary for the creation of jobs, providing income opportunities for the citizenry. On the other hand, in the full employment (or labour shortage) situation currently

experienced, direct investments that benefit only the investor and depend largely on imported labour offer little to increase living standards. Instead, such investments merely lead to unavoidable externalities such as more pollution, higher demand on utilities and infrastructure, more congestion and more social pressures due to the importation of low-waged foreign workers.

Direct investments have thus to be more selectively done and concentrate on projects that can offer higher incomes, increase core competencies and create higher value in relation to resource inputs such as use of land, which is already scarce.

The electrical & electronic (E&E) sector forms one of the NKEA targets. E&E used to be concentrated in Penang, but under the ETP, Klang Valley, Johor and Sarawak have been earmarked alongside the Northern Corridor for E&E sector development. Projects identified include semiconductors, advanced packaging technologies, IC design firms and wafer substrate manufacturing. Light emitting diodes (LEDs) are given special attention. Malaysia has a 10% world market share; three of the world's five largest LED manufacturers have operations in Penang.

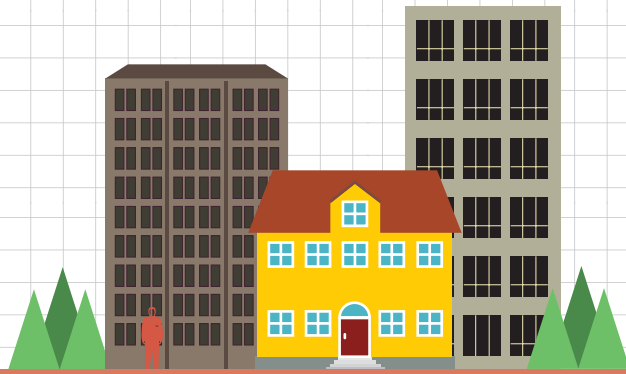
Fortunately, the driving factor of economic growth is not just investment capital, which might ignore Penang due to the emphasis given to Klang Valley. The driver for economic growth is actually cities. It is not just about better infrastructure as is being planned for Kuala Lumpur. More important is to make cities more people-oriented, aesthetically pleasing, environmentally friendly and, most significantly, more liveable.

#### Positioning Penang: Cities, people and the economy

Khazanah Nasional recently carried out a joint study with the World Bank and has published a report that offers a long overlooked insight into the factors that actually drive growth. Most nations today are post-war creations; many former colonies started out on somewhat equal footing but over the past half century or so have achieved varying levels of success. Opened or closed regimes and their development policies and strategies, rather than resource endowments, have been mentioned as success factors. The new insight, however, is that it is not nations that are competing with one another, but cities. To get growth right, we must get our cities right.

## ECONOMIC GROWTH

The driving factor of economic growth is not just investment capital; the driver for economic growth is actually cities. It is important to make cities more people-oriented, aesthetically pleasing, environmentally friendly and, most significantly, more liveable.



Malaysia, although a federation of states, has traditionally acted as a single nation. The 1957 Federal Constitution gave nearly all the portfolios of government to be administered under federal ministries, limiting jurisdiction of the respective states more narrowly to religion, land matters and local government. Before the new insight on cities was reached, Malaysia had been achieving near-double digit annual GDP growth for decades. Nonetheless, as described by the middle-income trap phenomenon, the country has not been able to attain income levels comparable to rich industrialised nations for it to call itself a high-income economy.

Getting it right is to see cities, people and the economy as the same thing rather than decoupled from one another. There would be no economy if not for the people and there would be no people if not for cities, the platform upon which people and activities can synergise. The single development model for the nation has become less relevant.

The 10th Malaysia Plan recognises this. While it rightfully attempts to leverage on its biggest chess piece, Kuala Lumpur, to bring continuing growth to Malaysia, unique development models need to be identified, catering specially to individual cities across the rest of the country. Cities are the engines of economic growth because people and activities come together, concentrated and giving rise to economies of scale. Each city is also characteristically different, and hence has the potential to play its unique role alongside other cities to collectively form the entire global supply chain. The city can effectively function only through decentralised governments at the local government level in which form can be tailored to match function instead of the more familiar "one size fits all" solution.

The difference between centralised and local governance is not only in what strategies, programmes or infrastructure have been identified. More important is that these have to be more closely interconnected with people. Rather than policy and plans from beyond, governance has to be about what local people want for their own locales and how what they wish for can be accomplished in the quest for common prosperity amidst very diverse individual identities, classes and interests that have evolved in our society. The time has come for common folks to do the talking and for politicians to listen more to the heartbeats on the ground. ○



Daniel Lee

**Datuk OK Lee, chairman of the Federation of Malaysian Manufacturers (Penang Branch) and senior consultant of Toray Malaysia Group.**

"The manufacturing industry has been doing rather well since the beginning of 2010. The global economy has somewhat recovered and enough orders were received by the manufacturers, whose performance depends mainly on having orders at hand to carry out their operations. This does not mean that they are stronger and more competitive.

"So long as the global economy does well, there are orders coming in and overseas competitors do not get more competitive that they can grab our orders away, our manufacturers will also do well.

"The industry will likely be stable in 2011, barring unforeseen events like the sudden sovereign default, and barring huge cost increases in Malaysia like the removal of gas subsidies, electricity hike and sharp Ringgit appreciation.

"The only way to mitigate down trends (which are caused by external factors) is for our industry to greatly enhance our competitiveness in terms of costs, quality and service.

"We should transform our industry structure to be a high value-added and higher tech industry. This means investing in upgrading human resources, R&D and technology development.

"Our industry must not remain as it is, just manufacturing goods according to others' design (like electronics manufacturing services [EMS] or subcontract work with no knowledge input for the industry) and with no progress in quality, service, product development and innovation."

# Industry in Penang — the way forward

## Background — manufacturing in Penang

Over the last three and a half decades, Penang's economy experienced rapid growth and structured transformation as a result of the promotion and development of the manufacturing sector. Much of this was driven by export-oriented multinational companies (MNCs) located in the Free Industrial Zones (FIZs). Electrical and electronics (E&E) manufacturing was the most important, followed by textiles and garments.

The growth of the electrical and electronics sector saw the entry of local process automation companies, local engineering technology providers, MNC-status companies and global logistic service providers. However, the growth in the manufacturing sector has slowed down, and is facing strong competition from the large labour surplus economies of China and India. This has affected the economy of the state and the nation, which is now deemed to be caught in a middle-income trap. It is unable to remain competitive as a high-volume, low-cost producer, and at the same time it is unable to move up the value chain and achieve rapid growth by breaking into the fast-growing market for knowledge and innovation-based products and services.

This is the scenario facing the nation, and Penang. For the state, which has been a leading centre for the E&E sector, the manufacturing sector is still the key to growth, progress and the creation of a technical and professional workforce. As such, the state has to strategise to reposition Penang as a rapidly growing, knowledge-based, high-value added and high-income economy.

Penang already has many of the necessary ingredients for success, but strong support from the federal government has to be forthcoming. The federal government has to realise that the progress made in the state will have far-

reaching effects on the nation. It must be remembered that the pioneering of FIZs in Penang in the 1970s had a great impact on the rest of the country.

## Issues faced by Penang

Penang is still a leading centre for industrialisation in Malaysia, but things have been allowed to slip. This has resulted in the following detrimental conditions:

### Inadequate supply of industrial land

Having sufficient, suitably located land is of paramount importance. As a first step, this issue has to be critically examined in terms of land availability serviced with world-class infrastructure and with an attractive industrial land policy in place. The land policy needs to clearly state the terms and conditions for making land available. As long as there is shortage of land, selectivity in terms of the type of industry comes to play. The area of land required or requested will have to be critically evaluated. The state will not be able to provide large acreage. So the land policy will need to be tied to the types of industries that are to be promoted.

### Lack of ready-built facilities for manufacturing

Today, investors prefer to be asset-light and look for rental of space. Ready-built factory buildings or customised buildings will become the norm. This will require real estate activity involving the government and the private sector. In the past, ready-built spaces were provided for small and medium industries (SMIs) and these buildings were small – generally a few thousand square feet. But for MNCs, the requirement will be in the range of 100,000 to 200,000 sq ft. This is certainly a new business that has to be pursued urgently.

### Absence of a dedicated agency responsible for industrial development

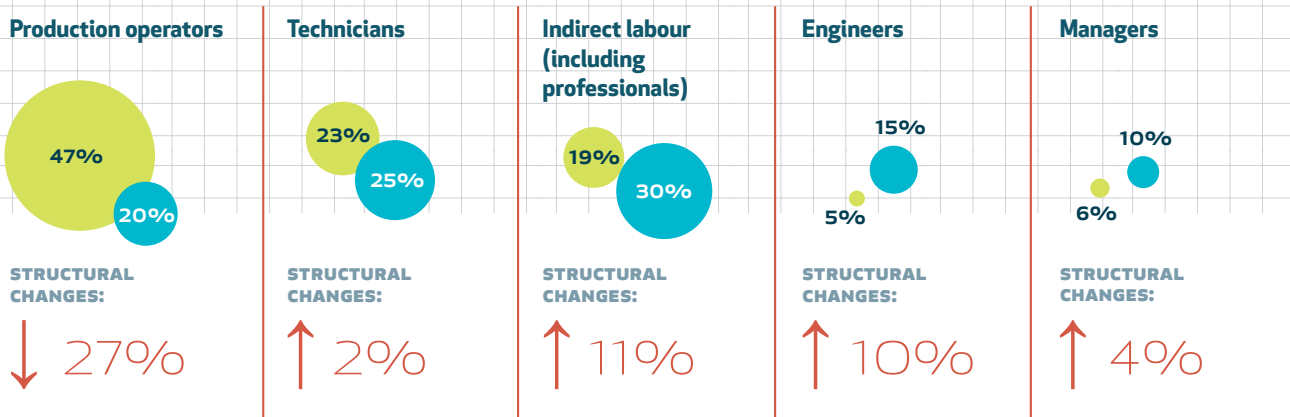
To facilitate the promotion and development of the industrial sector, the institutional framework needs to be urgently appraised. What is needed is a restructured lead agency dedicated to handling and coordinating all activities related to industrial development, with the authority to make decisions or have decisions made expeditiously. The concept of a one-stop agency is essential for:

- Industrial planning & development (for land & building);
- Management and administration of the industrial land bank;
- Investment promotion, including the services sector;
- Investor facilitation, including the services sector (one-stop service);
- Management of industrial database and intelligence; and
- Running a SMART Centre for SMI development.



TABLE 1: COMPOSITION OF PENANG'S WORKFORCE, CURRENT AND REQUIRED

● CURRENT ● REQUIRED



Source: Based on total employment of 200 workers in 2007 Penang Industry Survey by Yoon Chon Leong. Bizwise Consulting Sdn Bhd.

### Shortage of professionally qualified persons and technically qualified manpower

Innovativeness comes from the quality of the workforce. A technologically-advanced society is actually labour intensive and not capital intensive as widely believed (the *Leontief Paradox*). What this means is that in order to achieve higher incomes in the economy, it must paradoxically become more labour-intensive, not in the traditional sense of multitudes of labourers but structurally, in having a more highly qualified workforce. Yoon Chon Leong, who spent 30 years working mostly in R&D with MNCs estimated that nearly 30% of the workforce has to move from production operations to technical and engineering aspects of manufacturing in Penang (Table 1).

The 27% of production operators who need to be retrained into technical and professional workers would number some 54,000 workers. This will have to be accomplished over three years, with 18,000 being retrained per year. This will require the joint efforts of the industry, skills training centres and universities. The state has a critical role to play in unifying these forces to full effect. Malaysia has only one engineer to 312 people in the population compared to ratios of 1:120 for Canada, 1:82 in Germany and 1:45 in Japan.

The high-income society that we desired is achievable if we push the low-pay-grade majority of employees into the high-income categories, flattening the organisational structure in the process. To flatten this structure will require decoupling educational attainment from pay grade, so that people will then be paid wages on the basis of output.

The high-income society that we desired is achievable if we push the low-pay-grade majority of employees into the high-income categories, flattening the organisational structure in the process.



### RATIO OF ENGINEERS TO POPULATION

In order to achieve a high-income economy, a society needs to become more labour-intensive, and train and retrain more skilled technical and professional workers.

#### MALAYSIA:



1 Mr Yoon, quoted from the Malaysian Council of Engineering Deans.

#### CANADA:



#### GERMANY:



#### JAPAN:



## Solutions for Penang

### Developing macro clusters

Given Penang's industrial experience, the state needs to target the following industries for further growth:

- Electronic products and components
- Light emitting diodes (LED)
- Medical devices
- Photovoltaic (PV)
- Biotechnology
- Automation

The focus in the above industries should be on promoted activities i.e. research, designing and development; software development and solutions; creative multimedia and shared services; and outsourcing, especially knowledge process outsourcing and information technology outsourcing. In addition, efforts will need to be intensified to develop SMIs with the aim of integrating them into the overall manufacturing fabric in the state and to have a global reach.

In order to be globally competitive, the speed of development for Penang's high-technology industry will need to be significantly accelerated. If no action is taken, industry will gradually be marginalised, as companies from competing countries start to grow beyond their existing competencies. There is thus a need to encourage inter-company teamwork to facilitate effective industry macro clusters that can create business opportunities and that allow innovation and commercialisation to take root. This is a line of action that has to be pursued to ensure industrial competitiveness.

Previously, clusters comprising members represented similar value propositions, thus discouraging open sharing of best practices, technologies and market opportunities. The road forward is to re-engineer the current cluster development process by first redefining the existing clusters; by looking at them not as industry clusters but as consortiums of similar interest groups. It should be companies or groups of companies coming together to fill the entire value chain of a given industry through their combined value contributions, rather than a consortium of companies providing similar and competing products and services.

From Taiwan's experience, we see that macro clusters can be virtual entities that link value providers through effective dissemination of information and expert consulting.

In Penang, there is enough potential to develop the following macro clusters:

#### Consortium

Automation equipment	High frequency electronics
Software	Electric manufacturing services
Plastic moulding	Sheet and metal casting
Advanced materials	Integrated circuit design
Precision machining	Shared services outsourcing
Low frequency electronics	

Pursuing the macro cluster concept will be very challenging and the responsibility to address this challenge falls on both the federal government and state government. The federal government will have to ensure the right policy and incentives, while the state government, being much closer to the local environment, will have to play the key role of facilitating the formation of macro clusters.

### Building technology capabilities

Advancement in technology and in the capacity to absorb external technology is the key. Workers and the general public must be made to realise this. An environment has to be established so that children and young adults will consider science and technology as a desirable option. For Penang, this is desirable as it will help create a pool of potential engineers and researchers. As such, the recently established Penang Science Council and the decision by MNCs to head the five critical drivers of growth will move the industrial sector forward.

The five drivers are:

- Sustainable education and learning;
- Development of innovation and research;
- Mentoring of young scientific entrepreneurs;
- Development of life sciences and medical health; and
- Development of nurturing industry which involves the setting up of a technology centre.

Absorbing technology is also key and as such, skills enhancement and training are crucial. The upgrading of human capital in the industrial sector is an endless process. Penang is fortunate in that the Penang Skills Development Centre (PSDC) and leading captains of industry are proactive. Together they have evaluated what needs to be done to bridge the gap between policy-making and industrial needs.

### Establishing an Industrial Action Council

To be successful in industrial development, the state administration will have to be seen and accepted as business-friendly; facilitating and supporting the industrial and business communities. There will have to be effective networking and a cooperative framework for the benefit of all. This is to enable all concerned to work together for a common objective, which is successful industrial development with Penang as an investment centre of choice.

It is proposed that an Industrial Action Council be established, comprising state government and federal government representatives, industry sector representatives from MNCs and SMIs, experts from academia or consultancy groups, and eminent persons with knowledge and experience. There have been such groupings before but they were not effective as leadership was not charismatic and the groups, not focused. If proper leadership can be provided, and the council is action-oriented and taking a hands-on approach, then much can be achieved. There is a need to regenerate enthusiasm and passion.



**Datuk Boonler Somchit,**  
chief executive officer of the  
**Penang Skills Development Centre**

### Setting up a one-stop industrial development agency

A single new agency should be accountable for handling and resolving issues of land policy, land bank as well as supply of industrial buildings and Penang Cyber City office space. Networking with the federal government has to be strengthened and Putrajaya needs to be engaged on a continuous basis. It must be accepted that industrial development is a national objective and that states are providers of sites on the basis of locational advantages. From experience, an MNC chooses Penang for its investment after visiting potential sites in different countries, and is not prepared to move to another state within Malaysia, therefore the decision of the investor has to be respected and if the investor is not serviced appropriately, he will move to another country, causing a loss to Malaysia.

If we are to catch up with Korea, Singapore and Taiwan, we need to improve urgently Malaysia's technological performance. This is a must if the national economy is to move out from its recent middle-income trap. While the federal government is being more proactive, the state government and its agencies can play a key role to address these challenges. In Penang, rapport and linkages have been established with industry players. These need to be strengthened through proactive interaction. Industry players must be treated as partners if things are to move forward. They have to be treated as advisors providing information on the needs of industry, and as facilitators in developing SMIs and macro clusters. An environment for effective linkages is needed to enable acquisition of firm level technological capabilities.

Such capabilities are rarely acquired in isolation; they depend on linkages and cooperation with other firms. Through them, a mechanism for collective learning can be created. Every effort must be made to tap into global knowledge so that we can move up the technological ladder. At state level, there is a need to establish a Technological Capability Index.

### Objectives of the new one-stop industrial development agency

- Develop a macro cluster process;
- Maintain an updated and relevant Penang industry base;
- Facilitate an effective networking platform within and between supplier technology groups to optimise leverage of key competencies and to solve common issues;
- Help identify business opportunities that require cluster collaboration in the industrial community, and also through collaboration with government agencies, access to public projects as well as linkage of public research work to industrial commercialisation;
- Work with MNCs for the development of globally competitive supply chain and design clusters to support their needs; and
- Be responsible for gathering and disseminating market intelligence, running a resource centre, and assisting in linking with fund providers.

"Penang should move into higher value. Manufacturing should go beyond manufacturing and go into design and development. That's what the Penang Skill Development Centre (PSDC) is trying to do.

One particular important area I'm concerned about and very interested to push is taking the PSDC into what we call our 'Version 3.0'. We are going beyond manufacturing. The talent we need to supply and upgrade should be in high-end engineering and design.

For Penang to improve, the people must start to be more productive. Do more with less. This applies to both employees and employers. The movement of the economy into the high end will require everybody's cooperation. The government must support it and the industry must adopt it. Individuals must say, 'Yes, I want to be a part of this.' The government's role is to provide the infrastructure, quality of life and the right climate for investment. If you want to go into high-end design and development, you need young people.

Is Penang a good setup for young people in this field? No. Why? Housing is expensive. Transportation is bloody difficult. There's no 'action' in Penang. So why would young people want to be in Penang?

Has Penang improved? I'd say no. We are stagnating.

While the PSDC is still taking care of vocational and technical education and workforce transformation, our focus for the next five years is to really go into engineering talent development. We want to be the centre to manage programmes that will be able to churn out competent engineers who will feed into the needs of the industry.

The new direction of the PSDC is to be the centre for shared services. When local companies go into design and development, they need to have facilities. For them to set up their own facilities would be too costly. We have been able to get the federal government to fund the setting up of these facilities at the PSDC, which are then made available for companies to use.

Anyone who has just graduated, doesn't matter from which school, is raw. In Malaysia it has been shown that it takes about three years for an engineer, fresh out of college, to be really competent. In the US it takes about a year. We are trying to compress the three years of learning on the job into one year.

I'm very optimistic about the new economic model, the NKEA. We are moving in the right direction. Penang must also move in the right direction. Small companies who are labour-intensive should think about improving productivity.

The industry must start to pay better salaries. Companies want to pay very little and expect so much out of young people. You want to have good engineers, you must be willing to pay. A lot of people don't want to work in Penang because they don't get the pay.

For many years we were lucky because we were the sponge that brought in people from surrounding areas. Right now the surrounding area has developed, so it's a reverse brain drain.

Penang cannot continue to do more of the same. It's as simple as that."

**Datuk Lee Kah Choon,**  
**investPenang executive**  
**committee chairman**



Daniel Lee

"We have set up the Small and Medium Enterprises Market Advisory Resource & Training (SMART) Centre to take care of the small and medium enterprises (SMEs). We have also set up the Penang Career Assistance and Training (CAT) Centre to take care of unemployment and match human resources. We also established the Penang Investment and Tourism Office (PITO). These are the things we are doing to realise the state's vision.

We have a target of RM4.2bil in investments. Projections in terms of light emitting diodes (LEDs), photovoltaic (PV) and shared services as well as heritage tourism are very strong.

The ultimate objective of the state is to make sure that people have jobs.

We are going to refocus on the main pillars of growth, which are, first of all, in manufacturing, which is still very much electric & electronic (E&E) based. Then LEDs, medical devices, PV and shared services, all of which involve building on what we have. Then there are heritage tourism and medical tourism.

You have to look at investment as a long-term thing, because things can be very cyclical and dependent on international demand. Everyone has a common objective in attracting as much investment as possible. How well we do that will depend on a lot of factors such as incentives and environment as well as the political and economic structure of Malaysia as a whole: your corruption index, your liveability, how independent your judiciary system is, your police, and so on. All these to a certain extent will have an impact on people making a decision on whether to invest.

In terms of employment, there are more jobs looking for people than the other way around. You cannot keep on attracting investments when you have more jobs than people.

Whether investments into the state or country are up or down, the important thing is, first, you have to look at yourself, whether you can sustain yourself. Secondly, do you have a long-term policy to upgrade your industry? Then you have to make sure you are moving up the value chain. So with the limited resources you have, you need to be getting the most out of the investment. Bear in mind that there is a cost to the country in terms of incentives; for example, grants and tax exemptions. You have to think in terms of what you give and what you get in return.

My feeling is that Penang is doing very well. When the federal government says it wants to move to a high-income economy, I would say that the forerunner will be Penang. We are in a position to do just that. We can lead, all the way. If you say that our economy is not doing well, then the whole country's economy is not doing well. Penang is able to show how a high-income economy can come into being. I think Penang is already doing it."

"My feeling is that Penang is doing very well. In times to come, we in Penang will be supportive of the overall planning of the country. When the federal government says it wants to move to a high-income economy, I would say that the forerunner will be Penang.

Details will need to be worked out by the key players to avoid overlaps. Players should include the Penang Development Corporation (PDC), InvestPenang, the Socio-Economic and Environmental Research Institute (SERI), the PSDC, industry representatives from MNCs and SMIs, Malaysian Industrial Development Authority (MIDA) and the Northern Corridor Implementation Authority (NCIA) to ensure that there are no overlaps.

#### **Promoting green manufacturing**

While the focus is on the immediate, it must not be forgotten that there is great public concern about environmental sustainability. As such, green growth is being advocated and the state government should enunciate a policy to promote green growth. The objective should be to make Penang a green manufacturing hub.

#### **Conclusion**

From a strategic point of view, the task of moving Penang's industrial economy to a high-income level should not require disruptive intervention. The foundations are already there but there are also barriers that need to be removed. Penang is still regarded as a good place in which to invest and work. The fact that the early MNCs are still here and are reinvesting is a great plus point.

What is needed is for us to recreate an institutional framework that is efficient, effective, proactive and business-friendly. This needs to be backed by the availability of land serviced by a world-class infrastructure and by utilities and rentable space for investors who follow the business model of "light" assets (i.e. renting of factory space) and are not keen to invest in factory buildings. To succeed will require total commitment and teamwork.

There have been sufficient studies made and the information and knowledge at hand indicate that the state is very fortunate in that the basic platform to develop the industrial sector is still in place. What is required is the leadership to give confidence and energise the prevailing environment. ○

Adapted from Chapter Five, Penang Blueprint 2011-2015: A Blueprint for Change (SERI).

# Labour

By Chan Huan Chiang

Employment figures for Penang show a period of instability at the beginning of the past decade, during which wide swings by as much as 20% could occur over a single year. On the other hand, employment has been steadily rising during the last six years by about two per cent a year with no significant setbacks over the 2008-2009 recession.

Employment growth must be at least the demographic rate so that employment creation matches the people entering the workforce. Productivity rise (higher value added per worker) then represents increase in welfare levels as average income rises following higher output.

## TOTAL EMPLOYED IN PENANG, 2001-2009

Total employed ('000)



First difference



Three-quarter moving average



Unemployment is currently a non-issue. At the height of the economic crisis ending 2008 and beginning 2009, the unemployment rate was less than 2.4% which is not far from the 1.7% to 2.1% band experienced even when the economy was expanding. These rates reflect the normal situation — school leavers and graduates looking for employment after they have completed their final exams. A full employment situation is therefore being experienced in Penang.

## UNEMPLOYMENT RATES IN PENANG, 2001-2009

Unemployment rate (%)



First difference



Three-quarter moving average



Employment patterns in the various occupational groups are varied. Employment of service and sales personnel has also been on the rise during the past six years. Reflective of the overall employment trend, the 2008–2009 recession did little to hold back the rising trend.

#### EMPLOYMENT OF SALES AND SERVICES PERSONNEL IN PENANG, 2001–2009

**Service, sales and market sales workers ('000)**



**First difference**



**Three-quarter moving average**



Meanwhile, employment of plant and machine operators has trended steadily downwards over the past decade, a trend that is also observed for craft and related trade workers, where the cyclical swings are much wider. Given that both the manufacturing sector as well as artisan trade are not retreating

sectors of the economy, it is possible to interpret the falling employment trend in these sectors as indications of rising productivity where fewer workers can produce as much or even more output over time.

#### EMPLOYMENT OF PLANT AND MACHINE OPERATORS IN PENANG, 2001–2009

**Plant & machine operators and assemblers ('000)**



**First difference**



**Three-quarter moving average**



#### EMPLOYMENT OF CRAFT AND RELATED TRADE WORKERS IN PENANG, 2001–2009

**Craft and related trade workers ('000)**



**First difference**



**Three-quarter moving average**

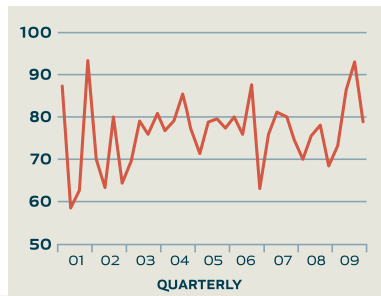


Wide cyclical swings in employment patterns are more disturbing. If workers are trained via formal schooling (including tertiary education graduates), they enter the job market in a steady stream every year. If downtrends and uptrends last longer than one year, job seekers will find it difficult to be absorbed during downturn periods,

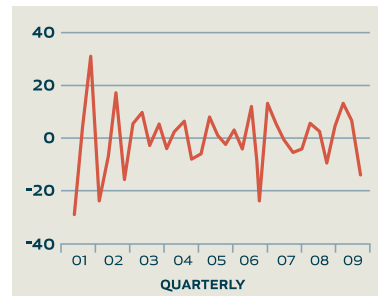
but they might be readily picked up during upturns. In the case of elementary occupation operators, the pattern of employment is unclear but as of 2009 has shot up by 50% within one year. Elementary workers are the easiest to hire as little skill is required, but if they are suddenly let go when no longer needed, the droves of unemployed and unskilled people would create a potentially serious social problem.

#### EMPLOYMENT OF ELEMENTARY OCCUPATION WORKERS IN PENANG, 2001-2009

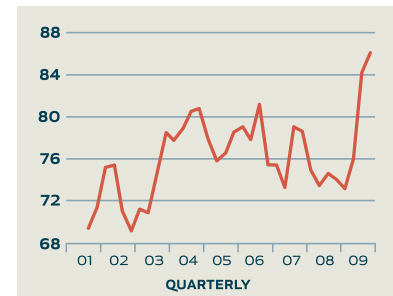
**Elementary occupation ('000)**



**First difference**



**Three-quarter moving average**



Such wide employment swings are also observed for the professional as well as the technical and associate/professional category of workers. Unlike elementary occupation workers, professional and technical personnel are not easily recruited. Skills have to be closely matched with the operating philosophy and work culture unique to individual companies. Professional and technical staff form

the driving force behind companies and thus they are not normally let go during downturns.

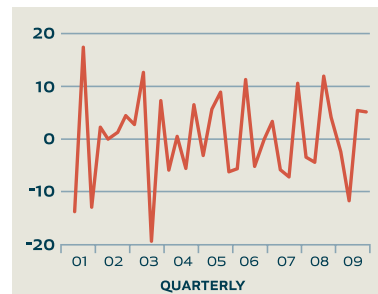
Wide cyclical swings in such categories of employment are therefore hard to understand. Upturns may be explained by periods of company expansion; large-magnitude falls are curious because it is hard to tell where people who made up the employment before the fall went.

#### EMPLOYMENT OF PROFESSIONAL WORKERS IN PENANG, 2001-2009

**Professionals ('000)**



**First difference**



**Three-quarter moving average**





PDC

**Datuk Rosli Jaafar, general manager of the Penang Development Corporation**

“There have been statements showing that where investments are concerned, especially foreign investments, we have already gone past RM2bil. We are still very optimistic about hitting RM4bil.

The Penang Development Corporation (PDC) prepares the facilities, infrastructure provisions, land requirements and all other amenities. We would say that the uptake of land has been reasonable, not bullish. It’s our plan that, in the next two years, we will have ample land banks.

It is my priority now to prepare the lands. You cannot have land without facilities, amenities or infrastructure. We have a big tract of land in Batu Kawan, which we are now pushing hard to get ready.

We do have some ongoing acquisition exercises, currently at various stages. But once we have acquired them, we have to put in the infrastructure. That will be three to four years down the road.

In terms of human capital, we have the capacity to deliver the necessary number of engineers at the high-end or middle-management levels.

Also, a lot of the supply chain is already available in Penang. Investors can see that there are a lot of local small and medium enterprises (SMEs) and suppliers that can provide solutions for them.

There’s always a request from investors, ‘I want a piece of land in Penang. I don’t want Seberang Prai. I can attract the kind of people I need to work in Penang.’

Brain drain is real. You train people for a couple of years, they acquire a certain level of skill, then they move on to neighbouring countries, especially Singapore.

Then there is job hopping from industry to industry. Multinational companies (MNCs) normally pay better, compared to SMEs. But the experience is good. A lot of people from these MNCs move out and set up their own companies. But the locals cannot match the MNCs’ wage structure.

Government must create good policy. Agencies like us are the drivers. Ultimately, the private sector must produce the right product. But the private sector will do the most profitable projects. This may not be the best thing for the state.

If a young engineer wants to come here, he will want to know if he can afford to buy a property in Penang. We need to make sure that the properties that we are building cater for every stratum. Not just the lower income groups, but the lower-middle, middle and upper-middle as well.

How many developers are actually catering for the RM200,000-RM300,000 range? Not many. The government needs to come up with a holistic policy. You can make money, but you will need to cater to the masses. The PDC is trying to bridge that gap. Our main problem is that we don’t have that much land. We are not the biggest player anymore.

There’s only one example of the PDC offering a really high-end development: Bayan Mutiara. That particular place warrants a high-end product. You cannot put low-cost houses by the seaside. But with Bayan Mutiara, we are also able to build 600 units at low cost and low-medium cost. For each low cost unit, we are subsidising easily RM30,000 to RM40,000.

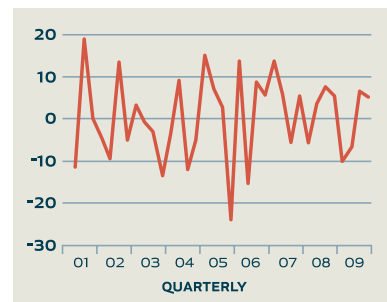
We are going to start marketing Batu Kawan in 2011 and 2012. The second Penang Bridge will only be completed at the end of 2013. But we can start marketing earlier. If you can see some of the bridge, then I think we can bring investors and say, ‘Look, it is just a matter of time. This will be another link that can bring you directly to the airport in a matter of minutes.’ We are positioning ourselves for 2011 and 2012.”

**EMPLOYMENT OF TECHNICAL AND ASSOCIATE PROFESSIONAL WORKERS IN PENANG, 2001-2009**

**Technicians and associate professionals ('000)**



**First difference**



**Three-quarter moving average**



The highly varied pattern of employment shows that it is necessary to manage the structure of the workforce. It is not merely an issue of ensuring that there are jobs for people. More than that, there is also the need to match the category of workers with employment creation and job losses by industry and business organisations.

Wide swings in unemployment patterns are highly undesirable because household income streams must be kept along a steady path to avoid social upheavals. What causes them, therefore, must become the subject of further investigations so that the right policies can be formulated: training needs must be met and business incentives that will smoothen the transition process that accompanies structural changes must be enhanced. ○



# Statistics

## Demographics

### PENANG: ESTIMATED POPULATION ('000) AND DISTRIBUTION BY DISTRICTS

	2005	2006	2007	2008	2009	2010
Timur Laut	483.0	486.6	494.0	502.3	511.3	520.9
Barat Daya	195.5	201.5	205.9	210.5	215.3	220.4
Seberang Perai Utara	288.0	292.8	297.2	302.0	307.2	312.9
Seberang Perai Tengah	356.0	362.4	369.4	376.9	384.9	393.4
Seberang Perai Selatan	146.3	149.1	152.0	155.2	158.6	162.2
<b>State of Penang</b>	<b>1,468.8</b>	<b>1,492.4</b>	<b>1,518.5</b>	<b>1,546.8</b>	<b>1,577.3</b>	<b>1,609.9</b>

Note: Slight discrepancies may occur due to rounding.  
Source: Department of Statistics, Malaysia.

### PENANG: PERCENTAGE OF EMPLOYED PERSONS BY OCCUPATIONAL CATEGORY

	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010
Legislators, senior officers & managers	12.1	7.3	10.2	11.1	9.7	10.3
Professionals	7.2	5.3	6.0	6.6	7.8	8.3
Technicians & associate professionals	15.9	14.6	15.2	15.8	16.0	15.0
Clerical workers	11.1	12.0	11.7	10.8	11.4	11.4
Service, shop & market sales workers	15.4	15.7	16.1	14.7	15.0	15.2
Skilled agricultural & fisheries workers	1.6	2.4	1.9	2.0	1.9	1.8
Crafts & related trades workers	7.9	10.4	9.7	10.8	10.5	10.0
Plant & machine operators & assemblers	18.0	20.0	16.1	17.2	17.2	15.6
Plant & machine operators & assemblers	10.8	12.4	13.1	11.0	10.5	12.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Note: Slight discrepancies may occur due to rounding. Occupational categories are classified based on Malaysian Standard Classification of Occupations (MASCO), 1998.  
Source: Labour Force Survey, Department of Statistics, Malaysia.

## Economy

### PENANG: GROWTH RATE (%) OF GROSS REGIONAL PRODUCT (IN 2000 CONSTANT PRICES)

<b>Agriculture, forestry, fishing</b>	2006:	5.1%
	2007:	1.8%
	2008:	4.8%
	2009:	5.6%
	2010E:	3.3%

<b>Mining &amp; quarrying</b>	2006:	1.6%
	2007:	4.3%
	2008:	-0.2%
	2009:	0.0%
	2010E:	4.3%

<b>Manufacturing</b>	2006:	7.1%
	2007:	3.0%
	2008:	1.5%
	2009:	-6.4%
	2010E:	10.7%

<b>Construction</b>	2006:	0.1%
	2007:	8.2%
	2008:	5.1%
	2009:	14.9%
	2010E:	5.4%

<b>Services</b>	2006:	8.2%
	2007:	10.8%
	2008:	8.0%
	2009:	6.2%
	2010E:	6.7%

<b>Penang GRP</b>	2006:	5.9%
	2007:	7.6%
	2008:	2.2%
	2009:	-1.9%
	2010E:	7.9%

Note: E-estimate. Slight discrepancies may occur due to rounding.  
Source: 10th Malaysia Plan.

## Approved manufacturing investment

### PENANG: APPROVED MANUFACTURING PROJECTS BY INDUSTRY, JAN-JUL 2010

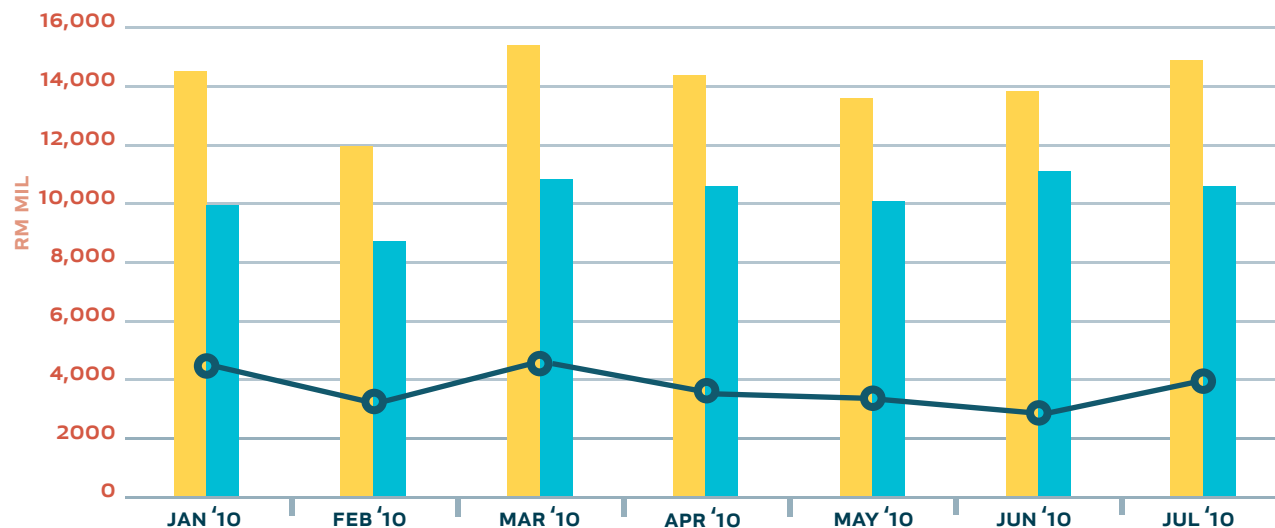
INDUSTRY	NUMBER	DOMESTIC INVESTMENT (RM)	FOREIGN INVESTMENT (RM)	TOTAL CAPITAL INVESTMENT (RM)
Food manufacturing	5	65,671,733	7,869,106	73,540,839
Beverages & tobacco	1	1,206,172	1,535,128	2,741,300
Textiles & textile products	3	45,033,858	218,500	45,252,358
Wood & wood products	1	1,666,000	0	1,666,000
Furniture & fixtures	1	405,000	4,095,000	4,500,000
Paper, printing & publishing	3	153,969,720	14,479,280	168,449,000
Chemicals & chemical products	4	515,500	79,641,516	80,157,016
Plastic products	7	136,234,049	6,261,822	142,495,871
Basic metal products	4	11,558,000	532,000	12,090,000
Fabricated metal products	10	48,672,380	0	48,672,380
Machinery & equipment	10	74,270,873	5,981,934	80,252,807
Electronics & electrical products	19	188,564,810	300,265,544	488,830,354
Transport equipment	1	5,400,000	0	5,400,000
Scientific & measuring equipment	1	0	515,720,000	515,720,000
Miscellaneous	3	4,891,689	571,861,000	576,752,689
<b>Total</b>	<b>73</b>	<b>738,059,784</b>	<b>1,508,460,830</b>	<b>2,246,520,614</b>

Note: Slight discrepancies may occur due to rounding. Data is subject to adjustments and revisions by Malaysian Industrial Development Authority (MIDA).  
Source: MIDA Penang.

## Trade balance

### EXPORT, IMPORT AND BALANCE OF TRADE, JAN-JUL 2010 (RM MIL)

● EXPORT ● IMPORT ○ BOT



Source: Derived from data provided by Department of Statistics, Malaysia.

# Logistics

## PENANG AIRPORT

	NUMBER OF PASSENGERS (DOMESTIC & INTERNATIONAL), JAN-SEPT 2010			CARGO HANDLED (DOMESTIC & INTERNATIONAL), JAN-SEPT 2010		
	DOMESTIC	INTERNATIONAL	TOTAL	DOMESTIC	INTERNATIONAL	TOTAL
Jan	153,411	144,077	297,488	1,625,281	9,863,955	11,489,236
Feb	157,533	133,064	290,597	1,991,929	7,437,959	9,429,888
Mar	170,424	160,556	330,980	2,435,175	10,361,810	12,796,985
Apr	162,609	154,729	317,338	1,696,088	11,592,293	13,288,381
May	166,930	172,200	339,130	2,865,880	11,211,178	14,077,058
Jun	184,285	195,616	379,901	2,408,540	9,935,833	12,344,373
Jul	194,339	165,310	359,649	2,401,410	11,025,281	13,426,690
Aug	167,828	154,196	322,024	2,745,453	10,305,423	13,050,875
Sept	182,512	169,771	352,259	2,473,420	9,718,554	12,191,973
<b>2010 (Jan - Sept)</b>	<b>1,539,871</b>	<b>1,449,519</b>	<b>2,989,366</b>	<b>20,643,176</b>	<b>91,452,286</b>	<b>112,095,459</b>

Source: Derived from series of Airport Statistics, Malaysia Airports Berhad.

## PENANG PORT

	NUMBER OF SHIP CALLS, JAN-SEPT 2010			TYPE OF CARGO HANDLED, JAN-SEPT 2010				
	DOMESTIC	FOREIGN	TOTAL	GENERAL CARGO	(FREIGHT TONNES)			CONTAINER (TEUs)
					DRY BULK	LIQUID BULK	CONTAINERISED	
Jan	214	231	445	197,451	307,652	382,739	1,508,121	88,972
Feb	229	171	400	173,453	189,845	373,824	1,228,393	78,759
Mar	258	360	618	167,115	142,152	376,585	1,689,051	96,329
Apr	241	277	518	179,156	223,389	357,902	1,415,415	90,320
May	243	256	499	259,951	401,536	404,192	1,686,464	98,195
Jun	265	303	568	144,130	334,950	396,788	1,546,504	88,223
Jul	224	239	463	138,692	418,831	390,436	1,825,360	99,568
Aug	204	244	448	134,261	287,111	371,999	1,613,970	93,687
Sept	248	342	590	123,453	418,338	382,116	1,401,483	86,020
<b>2010 (Jan - Sept)</b>	<b>2,126</b>	<b>2,423</b>	<b>4,549</b>	<b>1,517,662</b>	<b>2,723,804</b>	<b>3,436,581</b>	<b>13,914,761</b>	<b>820,073</b>

Source: Derived from the statistics provided by Penang Port Sdn Bhd.

A SERI PUBLICATION

