

Measuring Penang's Competitiveness

May 2005
Volume 7, Issue 5



In This Issue

Measuring Penang's Competitiveness	1
Oil Matters: Market Conditions, Policy and Response	11
Forum: Comparing the Goods and Services Tax (GST) with a Retail Sales Tax (RST): Strengths of the GST	16
International Headlines	19

Socio-economic & Environmental Research Institute

10 Brown Road,
10350 Penang, Malaysia
Phone: 604-2283306
Fax: 604-2267042
Email: seripg@tm.net.my
Website: <http://www.seri.com.my>

In recent years, inward investment or global FDI trends have shifted considerably to countries like China and India. Many automatically cite low cost and large domestic markets as the major pull factor of these economic giants. The question that arises, however, is if financial cost is the main driving factor in major business decisions. Even if it is, there is the further issue of whether other non-tangible costs such as hidden costs and opportunity costs have been considered.

Penang has, in the past, proven herself to be one of the forces to be reckoned with in the industrial world. However, recent inward investment figures which highlight a significant drop in foreign investments have sent alarm bells ringing and many industrialists and manufacturers are bracing for the worst. In response to feedback that Penang is fast losing its ability to remain cost competitive and in providing the necessary infrastructure and infostructure to support a value-added business environment, SERI has embarked on a study to gauge Penang's performance in terms of cost, competitiveness and efficiency.

For the purposes of this exercise, we have derived our own set of indicators, which has been divided into 3 main categories - macroeconomic environment, business environment and government fiscal incentives to gauge the overall level of competitiveness in Penang. Penang's performance in these areas will be benchmarked against selected countries such as Singapore, China, India, Thailand and Ireland.

Why Ireland?

Ireland was chosen as a non-Asian benchmark due to certain similarities it shares with the state of Penang. A small open economy, Ireland is highly integrated with the world economy through both trade and investment links. As such, economic conditions are largely influenced by the global economic environment. Other similarities Ireland and Penang possess include:

- Large manufacturing bases, in which a large proportion is exported
- Key export driver being foreign owned manufacturing establishments
- High levels of inward investment which has led to rapid growth in economic development, job creation, dissemination of technological know-how, linkages with indigenous industries, thus boosting productivity and underpinning export growth

Today, Ireland has successfully differentiated itself from other low cost, high volume competitors to emerge as the country with the highest GDP amongst all OECD countries through focused efforts in high technology manufacturing (electronics, health care and pharmaceuticals) and in internationally traded services (software, telemarketing, financial services and shared corporate services). It successfully attracts large amounts of FDI in the areas of Pharmaceuticals, Information and Communications Technology and Medical Technologies.¹ Thus it is evident that this movement up the value chain has to a large extent protected Ireland's investment base.

¹ **Pharmaceuticals** Currently 13 of the top 14 world pharmaceutical companies have substantial operations in Ireland, and 6 out of the 10 world's top selling drugs are produced here (including Lipitor and Zocor). Exports exceed Euro 35 billion annually and over 17,000 people are directly employed. Companies based in Ireland include Wyeth, Schering-Plough, Merck Sharpe and Doehme, Pfizer, Novartis, Allergan and Glaxo Smith Kline.

Information and Communications Technology: 7 of the world's top ICT companies have substantial presence in Ireland including IBM, Intel, Hewlett Packard, Dell, Oracle, Lotus and Microsoft. Direct employment exceeds 45,000 and exports exceed Euro 21 billion annually.

Medical Technologies: 15 of the world's top 25 Medical Technologies companies are based in Ireland, including Boston Scientific, Becton Dickinson, Bausch and Lomb, Abbott, Johnson & Johnson and Stryker. Exports are over Euro billion and direct employment is in excess of 22,000. (source: Enterprise Ireland Economic Profile www.enterprise-ireland.com)

..the GDP as a measure of growth may be misleading... due to the fact that these outputs are measured in their respective national currencies and not in one common currency.



Malaysia's General Performance

Malaysia's performance in various global competitive indices and scoreboards have been quite satisfactory. As seen in Table 1, our country ranked 16th in the *World Competitiveness Scoreboard*, 31st in the *Growth Competitiveness Index*, 15th in the *FDI Confidence Index* and 20th in the *Globalization Index Rank*. Unsurprisingly, Singapore ranks amongst the top in terms of competitiveness, while China and India emerge as the favourites in terms of FDI confidence.

Table 1: Various Global Rankings For Selected Countries

Countries	World Competitiveness Scoreboard	Growth Competitiveness Index	FDI Confidence Index	Globalization Index Rank
Malaysia	16	31	15	20
China	24	46	1	57
Thailand	29	34	20	48
Singapore	2	7	18	2
India	34	55	3	61
Ireland	10	30	n.a	1
Total Countries Benchmarked	60	104	38	62

Note:

WCS or World Competitiveness Scoreboard was published by International Institute for Management Development (IMD) in May 2004.(out of 60 countries)

GCI or Growth Competitiveness Index was published by World Economic Forum in October 2004.(out of 104 countries)

FDI Confidence Index was published by AT Kearney in October 2004.(out of 38 countries)

GIR or Globalization Index Rank was published by AT Kearney in May 2005.(out of 62 countries)

A) Macroeconomic Environment

Table 2: Basic Macroeconomic Indicators for 2004 in Percentage Growth Rate

Indicators (percentage change y-o-y)	Penang	Malaysia	China	Thailand	Singapore	India	Ireland
Real GDP	6.6	7.1	9.5	6.1	8.4	7.3	5.1
GDP PPP	8.7	9.0	11.6	8.7	9.4	8.9	7.2
GDP Per Employee in PPP ²	n.a	7.9	10.1*	5.9	9.5	10.0*	3.4
Labour Force	4.4*	1.6	0.9*	2.3	1.5	na	2.4
Labour Productivity ³	2.8*	5.9	7.5*	3.6	13.9	na	2.6
Real Manufacturing	9.6	9.8	12.8*	11.1	20.8	6.9	4.0
Real Services	5.4	9.7	9.4*	4.2**	7.5	8.8	3.6*

Source: SERI, IMF, various countries department of statistics publications

Note: * for 2003

** for 1H 2003

A country's Gross Domestic Product (GDP) is a common measure of economic growth. However, the GDP as a measure of growth may be misleading when comparing across a spectrum of differing countries due to the fact that these outputs are measured in their respective national currencies and not in one common currency. Converting national GDPs into dollars at market exchange rates is also misleading. Prices tend to be lower in poor economies, so a dollar of spending in China, say, is worth a lot more than a dollar in America. Thus for comparison purposes, a better method is to use purchasing-power parities (PPP), which takes into account price differences. The basis for PPP is the "law of one price". In the absence of transportation and other transaction costs, competitive markets will equalize the price of an identical good in two countries when the prices are expressed in the same currency.

Not surprisingly, China, being a developing nation with its huge appetite for foreign investment, charts the highest level of growth. What is surprising though is that the growth of

² GDP Per Employee in PPP is derived from GDP PPP divided by employment

³ Labour Productivity is derived from GDP divided by labour force.

the Chinese labour force stood at a dismal 0.9 percent for the year 2003. This may be attributed to the government effort to slow down economic growth for a soft landing. Nevertheless, total labour force in China is still the biggest at approximately 760.8 million people compared to around 10 million people in Malaysia. Meanwhile, India made good progress in terms of GDP per employee in PPP, thanks to its extraordinary growth in the services sector, in particularly the business process outsourcing industry. AT Kearney has rated India as a top outsourcing destination, followed by China and Malaysia.

..if the state's productivity growth is maintained at a constant low, it will be a near impossible mission for Penang to achieve its developed state status in 2010.



In terms of labour productivity growth, Singapore has the highest productivity growth rate among the benchmarked countries in this study. This is due to the fact that the island republic has more capital intensive industries; hence, growth in output is larger than growth in labour. In 2003, labour productivity in Penang grew by 2.8 percent, the 2nd lowest in of Table 2 above. However, in terms of absolute figures, productivity in Penang is higher than overall productivity in Malaysia. Nevertheless, if the state's productivity growth is maintained at a constant low, it will be a near impossible mission for Penang to achieve its developed state status in 2010. In our manufacturing-driven economy, it will be an arduous task to expect the labour force to achieve a high growth rate of productivity constantly each year if the manufacturing sector remains stagnated at the fabrication level. Penang cannot depend on fabricating alone to increase the output of the state but instead has to make full use of ICT and other means to lower costs and increase output.

Meanwhile, growth in the real manufacturing sector in the Asian region remains impressive. Among the countries under study, Singapore once again recorded the largest growth of 20.8 percent y-o-y, followed by China and Thailand. The manufacturing sector in Penang performed better in 2004 with a surge of 9.6 percent y-o-y as compared to 4.1 percent in 2003. Generally, around the globe, the manufacturing sector is the sector most exposed to international competition as about 50 percent of its products are exported, compared to the services sector which exports around 10 percent of its products.⁴

Foreign Direct Investment

Table 3: Growth of Total FDI

Indicators	Penang	Malaysia	China	Thailand	Singapore	India	Ireland
FDI Inflows, 2003 (USD million)	383	2,474	3,505	1,802	11,409	4,269	25,497
Total Growth in FDIs, 2003 (%)	-26.7	-23.0	1.0	69.0	99.0	24.0	4.1
CAGR of FDIs, 2000 – 2003 (%)	-20.1	-10.1	7.1	-14.4	-9.8	16.5	-0.4

Source: MIDA, World Investment Report 2004

Note: FDI for Penang is for manufacturing sector only

Foreign direct investment (FDI) is perhaps the most important indicator of competitiveness. Table 3 above highlights the FDI trends of the selected countries. FDI into the manufacturing sector in Penang declined by 26.7 percent y-o-y in 2003 alone while FDI in Malaysia slumped by an equally alarming rate of 23.0 percent y-o-y in 2003. The inflow of foreign investments into the country has shrunk immensely compared to the pre-crisis year of 1997. Total investments in Penang have been declining since 2000 and have only managed to rebound in 2004. The improvement in 2004 figures highlights an interesting point in that domestic investments accounted for approximately 50 percent as a proportion of total investments in Penang. In 2004, domestic investment in Penang rose by 117.1 percent y-o-y to hit the RM1 billion mark. What this means is that local companies are gaining in market share and market development, demonstrating strong capabilities in an area once dominated by large foreign owned companies. Reasons behind this are many, ranging from effective technology transfer over the last thirty odd years to the increased risk appetites of local entrepreneurs given the increased participation of the younger generation in these traditional businesses.

In line with the global trend of declining FDI levels in recent years, most of the countries under study recorded negative CAGR of FDIs within the period of 2000 to 2003 except China and India. In fact, total world FDI declined by 17.6 percent y-o-y in 2003. In 2003, China

⁴ World Investment Report 2004

Penang and Malaysia are still reasonably attractive spots for investors on the ground of good infrastructure and political stability.



became the largest recipient of FDI in the world, overtaking the traditional leader, the US. Over the next five years, China is projected to grow around 7 to 8 percent y-o-y while India will expand by 5 to 6 percent y-o-y.⁵ China and India are forecasted to lead Asian growth into the next century; given their vast human resource, populous potential market, and relatively low cost of production; and these are definitely plus factors to investors.

However, doing business in these two countries is not without downsides. Although labour is cheap, the difficulty in managing the labour is another matter. Language and culture barriers are some of the problems faced by investors in China. In India, many cities, even Bangalore for instance, suffers infrastructural shortcomings such as water shortage, inadequate sewers, erratic power supply, pot-holed roads as well as roads too narrow for the busy traffic. Perhaps, given these factors, Penang and Malaysia are still reasonably attractive spots for investors on the ground of good infrastructure and political stability.

Wages

Table 4: Monthly Average Wages in Manufacturing Sector, 2004

Indicators	Penang	Malaysia	China ^a	Thailand ^b	Singapore ^{b*}	India	Ireland ^c
Management Level	395 – 2,632	1,018-4,758	255 – 3,025	1,208 – 1,847	2,481 – 6,070	n.a	8,963 – 10,878
Engineers	526 – 821	562 –1,349	224 – 1,682 ^d	656	n.a	n.a	4,434 – 6,545
Technicians	316 - 789	215 -483	n.a	n.a	1,002 – 2,428 ^e	n.a	3,769 – 4,494
Operators	118 - 342	129 - 357	82 - 847	n.a	n.a	n.a	2,803 – 3,406

Source: Invest in Penang, Malaysian Industrial Development Authority (MIDA), Shenzhen Government Online, Board of Investments, Thailand, International Enterprise Singapore, IDA Ireland

Note: As the data is subject to availability, some of these figures are based on selected positions only
* for June 2003

^a Based on wages in Shenzhen

^b Based on selected businesses (Not necessarily manufacturing)

^c Based on wages in the electronics sector only

^d Wages covers professional and technical

^e Wages covers technicians and associate professionals

Looking at monthly average wages for the manufacturing sector in Table 4, wage differences exist at all levels across all the benchmarked countries but are not very substantial, with the exception of Ireland. Average wages in Ireland by far is highest at all levels of employment. This is probably due to the higher standards of living in the republic and higher exchange rate of the Euro against the greenback. Penang, China and Thailand have a clear edge over both Singapore and Ireland in terms of cheaper wages but it does not necessarily mean that the developed nations are in a disadvantaged position. The higher labour productivity and large supply of knowledge workers have always been a huge plus point among these developed nations. Although employee wages may be lower in Penang, employers usually have to retrain many of their employees, especially among the new and inexperienced workers because their qualification does not suit the job requirements in the industry. These are extra costs incurred, both tangible in terms of monetary cost and intangible in terms of time. As the world economy transits to a more technological and capital driven manufacturing system, Penang cannot survive on promoting its “cheap labour” in fabrication any longer. We have to begin to market ourselves as “value for money” workers: creative, innovative, knowledgeable, and at the same time more affordable than other nations, in order to achieve a more balanced and holistic advantage over the others.

Research & Development

Another important and interesting factor to look at in measuring competitiveness is the R&D investment of each country. Malaysia allocates around 0.69 percent of its total Gross National Product (GNP) for R&D activities, the 2nd lowest after Thailand among the selected benchmark countries. This is a stark comparison to the 2.19 percent allocation by Singapore, the highest among the countries under review (see Table 5). Further, in terms of number of

⁵ Wilson, D. and Purushothaman, R., 2003. “Dreaming With BRICs: The Path to 2050”, Goldman Sachs, Global Paper no 99.

scientists / engineers in R&D per million people, Singapore is again way ahead of the other contenders with 4,325 scientists / engineers in R&D per million people, followed by Ireland with 2,315 scientists / engineers in R&D per million people. The comparable figure for Malaysia was only 294, reflecting the scarcity in the number of scientist and engineers involved in R&D. This is rather appalling, given the fact that Malaysia is aiming to achieve developed nation status by 2020 and Penang has set its sight on 2010.

Table 5: R&D Indicators

Indicators	Malaysia	China	Thailand	Singapore	India	Ireland
R&D as % of GNP	0.69	1.23	0.24	2.19	0.85	1.14
Scientists / Engineers in R&D per million people	294	633	289	4,325	120*	2,315
Technicians in R&D per million people	57	na	116	381	102*	na
Science / Engineering students as % of tertiary students	n.a	37.9	n.a	n.a	13.8	35**

Source: UNESCO, NBS China, IDA Ireland

Note: All data are for year 2002 except India where only 2000 data are available and Ireland where only 2001 data are available.

* 1998 data

** 2000 data



..the requirement for an education system that has the capacity to support the needs of the high technology and R&D based industries.

As a country develops economically, the cost base will increase and hence productivity gains through innovation and research become a critical success factor. It is in this context that Singapore and Ireland are still successful at attracting FDI but at a much higher value-added level. The only way for Penang and Malaysia to achieve similar levels of economies of scale or cost efficiencies is the rapid transition from a production-economy to a knowledge-based economy

Adopting ICT and investing in R&D will enable Penang to add-value to manufacturing processes and enable the state to compete in terms of high technology capabilities and knowledge rather than cost. Pivotal to achieving this is the requirement for an education system that has the capacity to support the needs of the high technology and R&D based industries. Ireland has one of the best education systems in the world that meets the need of a competitive economy (IMD World Competitiveness Report 2004). Despite the high cost, it is still a popular investment destination for the production of medical devices and pharmaceuticals. If Penang can thrive in its ICT and R&D capabilities, and have this augmented by its cheaper cost of doing business, it has enormous potential in attracting a new breed of high-technology driven foreign investments.

B) Business Environment

One of the main indicators of competitiveness is most certainly the cost of doing business. Table 6 below highlights some indicators which reflect the overall cost of doing business. Penang possesses slight advantage in terms of industrial electricity cost and industrial water charges. Penang charges between USD0.14 and US0.26 for every cubic meter of water consumed by the industries, a rate much more affordable than Ireland and India. Office rental and cost of industrial land in Penang is the lowest compared to the other nations. Average rental for prime office space in Penang costs between USD5.17 to USD6.37, a fraction of the rental charges in Singapore and Ireland. Shenzhen, on the other hand, has a lower starting price for industrial land but on average, cost of industrial land in Penang is still more affordable than the other countries. Telephone charges for Penang and Shenzhen are comparable and stand amongst the cheapest. In terms of ADSL broadband connection, India and Ireland offer more competitive rates as the Internet Service Providers (ISPs) offer much better prices for higher speed capacity. All in all, comparison of the cost indicators in Table 6 does show that Penang and Shenzhen has a cost advantage over the other benchmarked countries.

...the ability to make inroads into developed markets depends largely on the ability to comply with the stringent international standards of quality and food safety.



Table 6: Cost of Doing Business Indicators (2004 – 2005)

Indicators	Penang	China (Shenzhen)	Thailand	Singapore	India (Bangalore)	Ireland (Galway)
Industrial Electricity (USD/kwh) (Peak period, average cost for mid range consumption)	0.06	0.08	0.07	0.08	0.08	0.09 ^e
Industrial water tariff (USD/m ³)	0.14 – 0.26	0.23	0.24 – 0.40	0.26*	1.38**	0.93(County) 1.34 (City)
Average office rent per m ² per month (USD) (Prime office space)	5.17 – 6.37	0.73 – 32.67 ^b	n.a	21.95 – 30.19	9.16 – 10.40 ^d	11.51 – 25.58
Avg. industrial land cost per m ² (USD)	34.6 – 59.5 ^a	15.7 – 338.8	n.a	95.9 – 426.7 ^c	n.a	n.a
Telephone charge per minute in USD (For business and industrial sector, peak period)	0.02 for first 2 mins and 0.01/ min thereafter	0.03 for first 3 mins and 0.01/ min thereafter	0.08	0.01 (0.0045 for every 30-second block)	n.a	0.06 (inclusive of 21% VAT)
ADSL Broadband (Monthly charges in USD for business and corporate, unlimited hours, speed capacity in parenthesis)	110 – 313 (1mbps – 2 mbps)	76 – 339 (n.a)	17 – 90 (256kbps)	153 – 510 (256kbps – 1.5 mbps)	28 – 207 (256 kbps – 4 mbps)	58 – 216 (2 mbps – 4 mbps)

Source: Invest-in-Penang, Shenzhen Government Online, Board of Investments, Thailand, Singapore Power, Singtel, Colliers International Singapore Research, Jurong Town Corporation, Public Utilities Board SG, Bangalore Water Supply and Sewerage Board India, Karnataka Power Transmission Corporation Ltd., Bharat Sanchar Nigam Ltd., Cushman & Wakefield (India) Pvt. Ltd., IDA Ireland, CSO Ireland, EIRCOM

Note:

* 2002

** 2003

^a 60 year leasehold

^b Rent for prime and non-prime locations

^c Up front premium, 30 year leasehold

^d Rent prices in Kolkata

^e Average for the whole of Ireland

The nature of the business environment has always been a concern for investors. Table 7 shows some of the indicators from the Doing Business Database of the World Bank Group that provides objective measures of business regulations and their enforcement. In terms of the indicators for starting a business, procedures range from acquiring the necessary licences and completing the necessary procedures with the relevant authorities to start a business. The indicators show that starting a business in Malaysia is relatively costly as well as time consuming. Malaysia has 9 procedures in place for investors to follow in setting up their businesses here and the total cost involved in the whole procedure is 2nd highest among the countries, totalling to USD965.78, which is equivalent to 25.1 percent of the GNI per capita of the nation. While Ireland has the least number of requisite procedures for business establishment, the costs associated amounts to the highest within our study at USD2,896.73. In China, investors and entrepreneurs will only need to come up with USD158.14 to establish a business but are expected to undergo 12 procedures that will take 41 days to complete

Malaysia has 9 procedures in place for investors to follow in setting up their businesses here and the total cost involved in the whole procedure is 2nd highest among the countries...

before they can commence business operations. Despite having only to go through 11 procedures in India, it takes nearly 3 months to complete all the procedure. Singapore is, by far, the most efficient as it only take 8 days to complete 7 procedures at a reasonable cost of US261.65.

Table 7: Business Indicators As At January 2004 (in terms of time and costs)

Indicators	Malaysia	Singapore	Thailand	India	China	Regional Average	Ireland
GNI per capita (US\$)	3,780	21,230	2,190	530	1,100	3,780	26,960
Starting a Business (2004)^a							
Number of procedures	9	7	8	11	12	8	4
Time (days)	30	8	33	89	41	51	24
Cost (in USD)	965.78	261.65	159.63	264.59	158.14	-	2,896.73
Cost (% of income per capita)	25.1	1.2	6.7	49.5	14.5	48.3	10.3
Hiring & Firing Workers (2004)^b							
Difficulty of Hiring Index	0	0	67	33	11	20.6	28
Rigidity of Hours Index	0	0	40	20	40	30.0	40
Difficulty of Firing Index	10	0	20	90	40	22.7	20
Rigidity of Employment Index	3	0	42	48	30	24.4	29
Firing Costs (Weeks of Wages)	74	4	47	79	90	53.0	52
Enforcing Contracts (2004)^c							
Number of Procedures	31	23	26	40	25	27	16
Time (days)	300	69	390	425	241	316	217
Cost (% of debts)	20.2	9.0	13.4	43.1	25.5	57.0	21.1
Closing a Business (2004)^d							
Time (years)	2.3	0.8	2.6	10.0	2.4	3.6	0.4
Cost (% of estate)	18	1	38	8	18	29.8	8
Recovery Rate (cents on the dollar)	35.4	91.3	42.0	12.5	35.2	30.4	88.9

Source: World Bank 'Doing Business' Database

Notes:

^a Only procedures required of all businesses are covered. Industry-specific procedures are excluded. For example, procedures to comply with environmental regulations are included only when they apply to all businesses

^b All sub-indices have several components. Each index assigns values between 0 and 100, with higher values representing more rigid regulations. The overall Rigidity of Employment Index is an average of the three indices.

^c Counts the number of procedures from the moment the plaintiff files the lawsuit in court until the moment of actual payment; the associated time, in calendar days; and the associated cost, in court fees, attorney fees, and other payments to accountants, assessors, etc

^d Covers the step-by-step procedures on filing for bankruptcy proceedings, initiation of bankruptcy, the petition hearing, the court's decision, the appointment of an insolvency practitioner, the assessment of claims and their ordering by priority, and the sale of assets

The Hiring and Firing Index measures the level of difficulty to hire new workers, the rigidity of the restrictions in place on the number of working hours and the costs and difficulties involved in firing a worker. The rigidity of employment index is the lowest in Singapore and Malaysia, indicating the low levels of complexity in hiring and firing a redundant worker. India on the other hand, scores 48 on the overall index, highest among all the benchmarked nations. The Cost of Firing indicator involves the measurement of the cost of advance notice requirements, and severance payments and penalties due when firing a worker. As can be seen on Table 7,



the cost to dismiss a redundant worker after twenty years of employment in manufacturing in Malaysia translates to 74 weeks of wages. Firing cost is highest in China (90 weeks of wages) while Singapore records the lowest cost of 4 weeks of wages.

The Enforcing Contracts indicators measure the ease or the difficulty of enforcing commercial contracts in a country. It allows the assessment of the efficiency of the judicial system in collecting overdue debt. In India, one is required to undertake 40 procedures, from filling a lawsuit in court to the moment of actual payment and the procedure takes a massive 425 days to complete. The cost incurred is 43.1 percent of the total debt value. Singapore, again, is the most efficient whereby it only requires 69 days to complete the 23-step procedure, at the cost of only 9 percent of the total debt value. Although lower than the regional average, Malaysia needs to continue to improve its efficiency in enforcing contracts as it takes 300 days to complete the procedures that will cost about 20.2 percent of the total debt value.



In terms of closing a business, it takes 2.3 years to resolve bankruptcies in Malaysia and the rate at which the claimants can recover from a bankrupt firm is 35.4 cents on each dollar. In Singapore, it only takes 0.8 years to resolve an insolvent company at the cost of 1 percent of the estate and the recovery rate is an impressive 91.3 cents on each dollar. India yet again trails behind the rest of the benchmarked nations in terms of its efficiency as it takes 10 years to complete the bankruptcy procedure and the recovery rate is only 12.5 cents on each dollar.

The business environment of a country plays a huge role in commanding a continuous flow of investment into the country. Despite the fact that Penang is in a more advantaged position in terms of cost, investors are still flocking to high cost countries like Singapore and Ireland - not Penang. Singapore has been rated as the 2nd most globalised nation in the world (AT Kearney, 2004), 2nd most profitable place for investors (BERI Report, 2003), 2nd most network ready country in the world (Global Information Technology Report 2004) and the least corrupt country in Asia. Its conducive business environment is one of the major factors that contributes to its economic prosperity and makes it a big hit with foreign investors.

..whilst financial cost is a key factor in business decisions, it is not a stand alone factor.

All in all, this highlights that whilst financial cost is a key factor in business decisions, it is not a stand alone factor. In a complex globalised business environment, other concerns such as access to existing and potential markets, good infrastructure and amenities; a strong network of indigenous and local suppliers; the reliability and effectiveness of service providers such as logistics and transportation; and the level of corruption and bureaucracy in a state or country are some of the other equally important factors that interplay with financial costs in ultimately determining the flow of funds and the long term commitment of investors.

Without a doubt, Penang possesses the necessary infrastructure such as airports and seaports, the network and supplier connections and prides itself on having amongst the most skilled labour force in Malaysia. Therefore the reason we still fall behind developed countries like Singapore and Ireland is not because of the lack of supporting infrastructure but because of efficiency issues such as the lack of will in terms of law enforcement, the lack of follow-through in terms of implementation, and the lackadaisical attitude of the people who have been molly-coddled in a protectionist-environment where all forms of harsh and threatening competition have been removed. Until the state and the country is able to address these issues, spending billions of Ringgit on world class infrastructure will never enable us to join the ranks of other world-class competitors in the playing field.

C) Government Fiscal Incentives

Fiscal incentives also play a major role in determining the competitiveness of a country. Countries commonly resort to special income tax regimes as a means to attract international capital or foster the international competitiveness of national industries. The government of Malaysia currently faces a Catch-22 situation; on one hand, the government needs to increase its income from taxation to curb the burgeoning fiscal deficit while on the other hand, it needs to maintain the taxation level at a competitive and attractive rate. Malaysia's corporate tax is fixed at a moderate rate of 28 percent (see Table 9). All the other countries, with the exception of Singapore and Ireland, have higher corporate tax rates. India possesses the highest corporate tax at 35-40 percent.

We also note that all countries under review have adopted a goods and services tax system (GST) except Malaysia, which will be doing so in 2007. Globally, 123 countries use the GST system, led by UK in 1973. GST or VAT is a broad-based consumption tax and is collected at every stage of the production and distribution chain. Some of the advantages of using GST includes payment of the tax which is spread out and over a large number of firms instead of being concentrated on particular groups such as wholesalers or retailers; it can overcome the problem of tax evasion; and if properly implemented, GST can ultimately lead to a reduction in overall rates of tax. On the other hand, the GST may cause irreversible damage to some smaller industries in Penang such as the gold and jewellery industry as well as other smaller-sized industries.

We should not rely on short-term competitiveness factors such as the exchange rate peg...

Table 9: Tax Rates

Indicators	Malaysia	China	Thailand	Singapore	India	Ireland
Corporate Tax	28%	33%	30%	20%	35-40	12.5%
Personal Income Tax	1% - 28%	5% - 45%	5% - 37%	2% - 28%	10% - 30%	20% - 42%
GST	n.a.	17%	7%	3%	12.5	21%

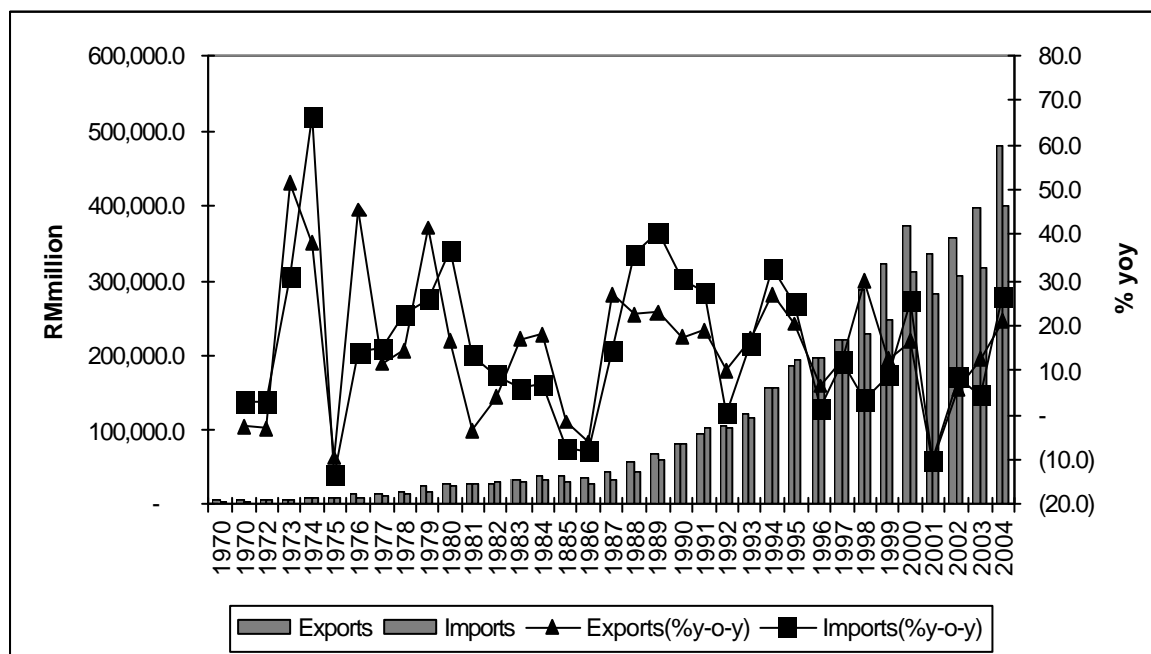


Source: MIDA; Inland Revenue Board, Royal Malaysian Customs, WorldwideTax.com

Conclusion: What can we do?

As competition within the global arena increases, there is a greater need for Penang to increase its efficiency as a value-added business center to attract investment inflows and to curb investment outflows which do not generate economic wealth for the state. We should not rely on short-term competitiveness factors such as the exchange rate peg which has so far benefited the country's economic competitiveness, as illustrated in the country's strong export performance. Export rose by 19.4 percent y-o-y in Penang while for the whole of Malaysia, export expanded by 20.8 percent y-o-y to RM480.7bn in 2004 (see Chart 1).

Chart 1: Malaysia's Imports and Exports Performance



Source: Bank Negara Malaysia (BNM)

These measures are merely a short-term reprieve and in the long run, Penang will lose out to lower cost Asian countries such as Indonesia, Vietnam, India and China if it continues to rely on basic fabrication and manufacturing activities. Until and unless Penang addresses the long-term issues such as efficiency and effectiveness, Penang's cost advantage over more developed countries such as Singapore, South Korea and Ireland are not significant pull factors in attracting investors.

Until and unless Penang addresses the long-term issues such as efficiency and effectiveness, Penang's cost advantage over more developed countries are not significant pull factors in attracting investors.

A good case in point is again Ireland. The attraction of Ireland for foreign owned manufacturers is not the small domestic market but the advantageous business environment from which to export.

One way for Penang to improve on the efficiency and effectiveness is re-engineering the way of doing business through IT enhancement and technology advancement. Besides that, we need to foster a knowledge-driven economy and ensure an adequate supply of qualified scientists as well as engineers in the economy to enable us to transit from a low cost-comparative advantage economy to a technologically-driven economy. One such move is to work on knowledge transfer between universities and industry human capital development. On the government side, we implore comprehensive study of policy before implementation and inevitably, consistency in policy decision. Strong incentives to sustain foreign investment in the state, especially in the manufacturing sector would also be urgently required.



In the final analysis, Penang seems to be at a precarious position economically. Major sources of worry includes low FDIs, lack of R&D and lack of scientists and engineers as well as science and engineering students as a percentage of tertiary students, Although other indicators such as tax rates, cost of doing business and availability of infrastructure are still better than China and India, we must not rest on our laurels as competition is building up fast. After all, building up the nation's competitive position is an on-going process, which requires constant review of policies as well as innovative strategies to sustain as well as boost competitiveness. *§ Poh Heem Heem, El'millian Chew & Tan Yin Hooi*

Addendum: Exchange Rates for the Selected Benchmark Countries

Penang/ Malaysia	1 Ringgit Malaysia (RM) = 0.263USD
China	1 Chinese Yuan Renminbi (Yuan) = 0.121USD
India	1 Indian Rupee (INR) = 0.023USD*
Ireland	1 Euro (€)= 1.279USD*
Thailand	1 Baht = 0.025USD*
Singapore	1 Singapore Dollar (SGD) = 0.607USD*

Note:

* - Mid-market rates as of 12 May 2005

Oil Matters : Market Conditions, Policy and Response

Rising oil prices

Since the beginning of the new millennium, the world's economy has been very fragile: with uncertainties ranging from slowly overcoming deflation in Japan and the U.S., the American twin deficits, the falling dollar, China's renminbi pegged to it and soaring oil prices. In 1999, a not too distant past, when oil cost only US\$10 per barrel, the sentiment was that this price was still higher than what might be considered normal. Since the 1900s, oil prices would normally fall between \$5 and \$10 per barrel (in 1999 constant dollars) and during rare bouts of price spikes, they were still below \$20 per barrel. The oil shocks only came with the establishment of the Organisation for Petroleum Exporting Countries (OPEC), which pushed oil to nearly US \$30 per barrel in 1973 and to well beyond \$50 per barrel in 1979 following the Iranian revolution. However, high oil price scenarios were never prolonged because the oil cartel created by OPEC encouraged development of new sources and independent production such as in the North Sea, North Alaska as well as in Malaysia (which unlike Indonesia is not a member of OPEC). From its peak in 1980, oil prices have been falling. By the end of the nineties, oil was back in the \$5 to \$10 range. It was also because oil was relatively cheap that the move towards new technologies for tapping alternative fuels was not as rapid as it could have been despite the fact that most countries have signed the United Nation's climate convention to cutback on greenhouse gas production, the richer ones (listed in annex 1 of the climate convention) to as low as their pre-1990 emission levels.



But the sentiments back in 1999 were wrong. Within eighteen months, oil prices would rise three-fold to nearly \$38 per barrel. For a brief moment prices fell back to the lower twenties range. Since the recent turn of the century, oil prices have crept up steadily, first climbing past the \$30 dollar mark (in current dollars) towards the close of 2003, then the \$40 mark by the middle of 2004, then \$50 and \$55 by March of 2005 and since then pushing towards \$60. In response to this rising trend in oil prices, Malaysia has, in parallel, begun steps in 2000 to wean itself from subsidizing oil prices. This resulted in frequent upward price revisions at the petrol stations during the past couple of years.

Malaysia's subsidy for petrol and diesel was designed to keep pump prices stable at the level of the long term oil price trend so as to avoid constant adjustments at the petrol station to accommodate seasonal price variations. To do this, the government budgets for a subsidy while at the same time levying a tax. When oil prices fall, stations are allowed to retail petrol and diesel at the government fixed price but the excess earnings are taxed. When oil prices rise, the fixed price is also retained and government subsidies are used to meet the loss of earnings from the petrol stations. Having somewhat done away with this system, petrol station prices have crept up, every few months or so, adjusting in tandem with the rising price of oil.¹

Economic implications of changing oil prices

The government's position on oil prices has to take into account their impacts when applied as two somewhat unrelated policy tools. First, oil prices are expected to impact on economic performance: cheap oil - high growth and expensive oil - low economic growth. Higher oil prices create a negative supply shock effect by increasing the input costs to producers. When passed on to consumers, higher costs lead to inflation that will in turn put upward pressures on wage costs. In the second round, higher wages further add to input costs and so on in an upward spiral. But the government's pricing policy on oil is not to simply keep prices as low as possible to boost economic growth, because it also gives a signal on the extent of energy efficiency that both industry and consumers need to achieve to avoid an over dependence on oil by the economy. The second policy tool involves setting oil prices as a road-pricing tool for traffic management. Cheap oil puts more cars and other vehicles on the road producing congestions and other problems, such that if petrol (and diesel) can be optimally priced at the petrol station a better balance can be achieved in terms of having as many vehicles on the road to improve road transportation but not so many that the roads become clogged with traffic.

¹ As of May 5 2005, premium petrol costs RM1.52, regular petrol RM1.48 and diesel RM1.08 per litre in Peninsular Malaysia. On March 1 2005, diesel price had gone up to RM0.88 per litre. In October 2004 premium petrol in Malaysia was set at RM1.42, regular petrol at RM1.38 and diesel at RM0.83 per litre. In May 2004 there had been a revision of premium petrol to RM1.37, regular petrol to RM1.33 and diesel to RM0.78 per litre. In East Malaysia, petrol prices are 1 to 2 sen per litre lower.

Supply shock

Despite the fact that oil prices crept up by 60 percent from the \$30 range into the \$50 range between the start and end of 2004, the world's economy managed to continue growing by 4.1 percent which is higher than the long term trend of 2.7 percent average over the past 25 years. At the global level oil prices have a degree of counterbalancing effect. Many oil producing countries are otherwise poor and therefore when oil prices rise these become recipients of more oil money. The oil producers begin to import more consumer goods such that despite being strapped with higher input prices, the oil importing countries enjoy better export sales – with the higher prices being passed back to the oil producers. This is why, sometimes, lower oil prices may instead bring bad news. Loss of oil revenues by oil producing countries, bring few alternative prospects among less developed oil producers for raising public funds that might force taxes upwards and dampen these economies. The oil producers import less consumer goods and this in turn dampens the exports potential of the oil importing countries.



Malaysia is an oil exporter and is therefore a beneficiary of the current high price scenario.² However, part of the oil the country consumes is imported and the higher cost is now passed on to the consumer with a smaller amount of subsidy. More recent figures of Malaysia's oil imports are not readily available³, but data going further back show that Malaysia's oil imports amounted to 8403, 14731 and 16511 thousand metric tons oil equivalent in 1990, 2000 and 2001, such amounts form about one-half percent of global oil imports.⁴ Being simultaneously an exporter as well as importer of oil, Malaysia is in a good position to address the economic growth implications of rising oil prices independent of its policy on road transportation needs via a road pricing mechanism.

Road pricing

A major component in the design of a road pricing structure, i.e., the system for collecting public revenues from vehicular road users, is economics, that is, to identify an efficient chargeable rate).⁵ If the chargeable rate is set at an efficient level, the number of vehicles on the road should optimise – it will satisfactorily meet the transportation requirements for society without causing too much congestion, theoretically speaking that is. In real life it is harder to ascertain what is actually meant by satisfactorily meeting the people's transportation requirements (for both people and cargo), because attitudes concerning meaningful travel time, cost per kilometer of travel and level of comfort are very subjective.

In Singapore, efficiency of road transport is based on the capacity of the roads and highways. Because the country is small, the government would only allow a certain number of cars to be driven on its roads to avoid congestion. Each year a known number of cars will be removed from the streets (virtually all cars that had become ten years old). That same number of new cars will be allowed to replace them. Those who want to buy these new cars will have to tender for a certificate of eligibility (COE). How much money one needs to pay for this will depend on the demand for new cars – the COE becoming expensive during boom times and vice versa. Essentially, as one form of road pricing, the COE artificially raises the price of a new car beyond the sticker value in the showroom to a level that the demand for new cars will not exceed the capacity (supply) of Singapore's roads. Given this Singapore experience, there have been many hints such as public statements from Malaysia's Ministry of International Trade and Industry and from the Automobile Association of Malaysia that sticker prices for new cars will not come down even after Malaysia begins to comply with its AFTA commitments. Even though import duty for cars and auto parts will definitely come down, customs excise (i.e., taxes levied on local production) will be proportionately increased to keep purchase price at the same level. The reason is to prevent more cars being bought and driven on Malaysian roads due to their lower prices. Besides, excise duties can effectively replace import duties as a public revenue source, that is, from those who can afford to own cars.

² See box article

³ Most sources for recent oil statistics show NA or not available in the entry for Malaysia's oil imports. These sources do show, however, that Malaysia exports but does not import natural gas.

⁴ Data obtained from World Resource Institute environmental information portal called EarthTrends.

⁵ The other two components are technology (how to collect the money), and politics (how and when to introduce it). See Georgina Santos (undated) "On the economic, technological and political aspects of road pricing as a tool for traffic demand management," University of Cambridge (www.geog.ox.uk/staff/gasantos-files/etc.pdf)

The road tax collected by the Road Transport Department or JPJ in Malaysia is also a form of road pricing. While the higher annual cost of operating a car resulting from road taxes does reduce the number of vehicles on the road, it will not fix the number of vehicles on Malaysian roads in relation to capacity. As a result, because of the steady pace in which Malaysia's economy has grown, increases in the number of vehicles are straining the capacity of the nation's public roads. In this sense, petrol and diesel subsidies can do better as a road-pricing device. An increase in subsidy will lead to more vehicles on the road. There is less incentive to plan road travel more carefully or to avoid unnecessary travel. Lower subsidies will, on the other hand, help raise public revenues (due to savings from lower subsidies) and reduce traffic volumes.

How much traffic will be reduced per unit increase in price will depend on the price elasticity of demand for road use – that is whether say a ten percent increase in price will lead to more, equal to or less than ten percent decrease in traffic (the demand curve is downward sloping). But the actual outcome on the roads after the road pricing policy is implemented will also depend on the price elasticity of supply – whether a ten percent increase in price will lead to more, equal to or less than ten percent increase in transportation supply (the supply curve is upward sloping). Take the case of the two recently announced transportation price hikes that followed the increase of diesel pump prices on 5 May 2005.



The Pan Malaysian Lorry Owners Association has announced a 40 percent rise in transport charges (from 18 sen per tonne of cargo per kilometer to 25 sen). Twenty-five sen is the maximum allowable rate already approved by the government but lower rates were charged due to competition and to stimulate demand. In a similar response, the Federation of Malaysian School Bus Operators Association has also announced that beginning June 2005, parents will have to pay 10 percent more to have their children transported to school. The Commercial Vehicle Licensing Board (CVLB) has threatened to revoke licenses because this rise in fares has not been authorized but association members have cited that diesel cost has risen by 25 percent which means that with the 10 percent increase, school bus operators will still have to make up the 15 percent difference. After all, MAS has been allowed to impose a fuel surcharge following the hike in jet fuel costs.

From these announcements, both the suppliers for bussing pupils to school and for cargo haulers have made it clear that the extra costs for fuel will be passed on to the end users. The price hike will lead to a reduction of use (parents finding alternative means for getting their children to school, such as car-pooling, and commercial firms freighting by rail, sea or even air), the amount of reduction, as mentioned, depending on the demand as well as supply elasticities.

Fortunately economic textbooks have all this worked out. If the demand of school buses and lorries responds readily to price changes more than the supply response to price changes (demand elasticity more than supply elasticity) then a new equilibrium between demand and supply will be achieved in the long run after adjusting to the new price – the larger the difference in elasticities the faster the adjustments will be made. On the other hand, if demand adjustments to price changes is not as responsive compared to adjustments in supply, then an unstable spiraling of continuous price adjustments will occur that moves farther and farther away from the equilibrium that both demand and supply attempts to seek.⁶ In reality of course, such instability will not occur for long and some intervention, called expectational adjustments, will take place.

What do all these mean when a road pricing policy is to be designed? In reality, supply is not expected to be very elastic. It will depend on the number of school buses and lorries that could be found and the number of licenses that has been issued, both of which can only be adjusted slowly (buying a new bus or lorry or selling them off for scrap; more licenses issued when more operators qualify or licensees giving up the business). The effectiveness of road pricing will thus depend on whether the demand for school bussing and road haulage can respond more or less readily than their supply adjustments. The vehicle licensing board should therefore not worry as much, because the road transport market can adjust itself. Investing in buses and lorries can be substantial for small operators and they will have the incentive to attempt maximizing their earnings by increasing their passenger or cargo loads.

⁶ There is of course the rare possibility that the supply and demand of school buses and lorries have exactly the same elasticities, in which case, the expected outcome will be continuous price adjustments without finding its equilibrium. The prices will hover near the right point but not quite there. In economic textbooks these concepts are discussed as the cobweb model, because the oscillations about the demand and supply curves when drawn appear like a cobweb.

Only efficient pricing (not regulated pricing) can guarantee that since price increases will reduce demand. On the other hand, being forced to keep prices down artificially will drive operators towards other means of cost savings that fall outside of regulations or enforcements such as lower maintenance standards, use of older machines or working longer hours, all these leading to lower safety standards.

Petrol and diesel subsidies in road pricing

There is some confusion as to how much has been the cost of petrol and diesel subsidies to the government. This is because the subsidy is in two parts. The first part constitutes exemptions from sales tax (hence indirect subsidy) that would have otherwise been collected, which amounts to some RM8 billion a year. This is why some sources quote the total subsidy amounted to about 13 billion for 2004, putting a severe dent on the public budget.

The second part is the direct subsidy of around 12 sen per litre in 2000, when oil was cheaper, which then crept up to around 24 sen per litre or higher today because of the higher oil price. Essentially the government pays us this amount each time we fill our vehicles at the petrol kiosk. The subsidy for diesel (filled by buses and lorries and those who are fortunate to own cars run on diesel) at the petrol kiosk is higher, at 61 sen per litre.⁷ However, diesel delivered to factories etc are not subsidized. Before the end of last year, industries paid RM1.36 per litre for diesel when the pump price at the kiosk was 83 sen (a difference of 53 sen). Suspecting that industrial users have been quietly buying diesel at the pumps, the government, on 1 January 2005, imposed a diesel quota by only delivering amounts to each petrol kiosk based on the kiosk's average diesel sales in 2003 and 2004. One by one, throughout the nation, the kiosks ran out of diesel because the amount delivered could only meet half the demand. The kiosks claim their sales have risen by 100 percent compared to the previous two years' average.

Given the amount of fuel vehicles pump off the petrol kiosks in 2004, the monthly direct subsidies amounted to a good RM400 million, i.e., about RM4.8 billion last year. This amount is already well above the direct subsidy cost of RM1.2 billion a year during the nineties. The higher oil prices in more recent months would have revised these numbers upwards to RM8.9 billion for 2005 if the government were to totally absorb the new prices on behalf of motorists. However, with the May 5 price hikes, the subsidy bill would amount to RM6.7 billion, which means that the RM2.2 billion short fall will have to be paid by Malaysian motorists.⁸ Basically, although reducing the fuel subsidy is aimed at lower and eventually removing the public budget deficit, the government appears to be committed to keeping the pump prices of petrol and diesel as stable as it possibly can. The annual subsidy cost will rise from RM4.8 billion last year to RM6.7 billion this year, but part of the cost of higher oil prices will have to be absorbed by motorists as well.⁹

The Pan Malaysian Lorry Owners Association suggested that the government might consider an abolishment of diesel subsidies in lieu of an abolishment of road taxes. It quoted the road tax rate of the 36-ton lorry for which the annual road tax charged in Malaysia is RM6865, is higher than the rate of RM730 in Thailand and RM5396 in Singapore. Although the government remarked that road taxes would not be removed, it might at least give the suggestion some thought. Road tax revenues collected in 2003 amounted to only RM2.1 billion which is still much less than fuel subsidies. Moreover, expected road tax revenues are much easier to estimate, as it is a function of the number and types of vehicles on the road. Fuel subsidies, on the other hand, will depend on both the price of oil and the amount of fuel pumped at the kiosks.

Conclusions

It is apparent that the efficient level of road pricing is hard to identify due to the many complexities – a combination of market characteristics and the regulator's social goal of what is a fair price for the consuming public. High oil prices make this problem even more complex because they make road transport, though necessary, less affordable. Business is business and will not be worthwhile if it is not at least normally profitable. The government is forced to

⁷ The subsidy for liquefied petroleum gas was even higher at 97 sen per litre.

⁸ The total direct subsidy is allocated roughly 40 percent for petrol, 46 percent for diesel and 14 percent for liquefied petroleum gas.

⁹ The direct subsidies for petrol and diesel in 2001, 2002 and 2003 amounted to RM7.4 billion, RM4.3 billion and RM6.8 billion respectively, which is reflective of only occasional kiosk pump price revisions in response to frequently changing oil prices. Through these years, subsidies per litre have been systematically reduced but traffic volumes have increased.

subsidise thereby creating market distortions and the wrong incentive signals. The slow pace of adoption of alternative technologies that is less oil-dependent as well as our oil dependent lifestyles are examples of reading the wrong signals. Worse still, switching the mode of transport is not easily done, because mass transit systems or cityscapes that do not use as many cars will take years, even decades to install. In the meantime, it remains a dilemma – start the change over now or bear out the oil crisis hoping it is not prolonged or frequent.

§ Dr. Chan Huan Chiang

About Oil and Prices: FAQs

Q: The newspapers reported that as of 5 May 2005 the price of RON97 (premium petrol) will go up by 10 sen to RM1.52 per litre and for RON92 (regular petrol) to RM1.48 per litre in Peninsular Malaysia. What does RON97 mean?

A: The term RON97 stands for research octane number 97 which is an international rating for fuel based on the blending of n-heptane and iso-octane in the petrol during refining. The number indicates the maximum compression of a particular fuel by the piston in the engine cylinder before the fuel will self-ignite prematurely and causing engine knocking. Since higher compression means more engine power the higher the RON the better the performance.

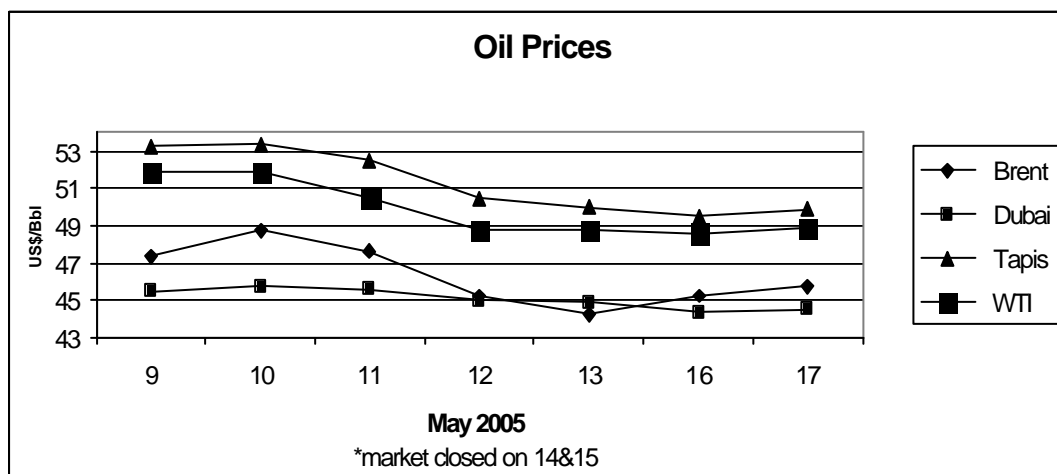
Q: Oil costing US\$50 per barrel is expensive. How much oil is there in a barrel and how is this price determined?

A: The barrel referred to holds 42 U.S. gallons of oil, equivalent to 159 litres (a cubic metre of oil can fill about 6.29 barrels). This remains as a unit of account for quoting oil prices today even though oil is piped and shipped by oil tankers and very large crude carriers (VLCCs). Those steel drums we see in pictures or movies hold 55 gallons but even when these were used the accounting have always been in units of 42 gallons each.

Whenever the finance pages report oil prices they usually refer to the price for West Texas Intermediate crude (WTI), which is a high grade, light (or sweet), low sulphur content crude, traded at the New York Mercantile Exchange (NyMex). The commodity traded is thus indicated as NYWTI in the financial pages. The other two international price benchmarks for crudes are the United Kingdom Brent, extracted from the North Sea and the Dubai crude for Middle Eastern oil. Apart from these three, various other price quotes for oil are regional benchmarks.

Q: What about the price of Malaysia's oil?

A: In the oil market, Malaysia's oil is referred to as Tapis, named after the oilfield off the coast of Trengganu. Tapis is a regional price benchmark for oil in Asia and its quality is close to that of WTI judging from the comparable prices Tapis is traded for. Tapis used to trade about a dollar below WTI but May 2005 prices showed Tapis outperforming WTI. The following chart shows the price comparison of the different crudes mentioned.



FORUM

The article below is the 5th part of Prof. Dr Suresh Narayanan's series of articles on the Goods and Services Tax (GST) which is scheduled to be implemented in Malaysia in 2007. As the GST will affect each and every one of us, we invite you to put forward your comments via email at seripg@tm.net.my so that they can be taken cognizance of by the policy makers. Please note that the views reflected in this article represent the personal views of the writer and do not necessarily reflect the views of SERI.

COMPARING THE GOODS AND SERVICES TAX (GST) WITH A RETAIL SALES TAX (RST): Strengths of the GST by Prof. Dr. Suresh Narayanan

PENANG
ECONOMIC
MONTHLY

Introduction

The proposed Goods and Services Tax (GST) is generically a value added tax (VAT). And the VAT is analytically equivalent to a retail sales tax (RST). The main difference between the two, however, is that the VAT is collected from many points along the value added chain while the RST collects the same revenue from a single point (the retail stage).

The primary strengths of the RST were discussed in the last issue; they pertain to familiarity, administrative simplicity and lower compliance costs. In this issue, we look at the strengths of the VAT. This might explain why the VAT has almost universally been chosen over the RST.

The Strengths of the VAT

Minimizing the erosion of the tax base

A significant strength of the VAT in the Malaysian setting arises from the feature of collecting the tax at different stages of the supply chain. Given that retailers are numerous and often rather small, it is unlikely that a VAT in Malaysia would cover all of them. In the event that some smaller retailers have to be left out of the VAT system (by say, specifying a sales threshold), the resulting reduction in the tax base will be greater under the RST than the VAT. This is because leaving a retailer out of the RST removes the full value of the sale from the tax base; in the case of the VAT, only the retailer's value added is lost. Thus, a higher rate of tax may be necessary under the RST (due to its smaller tax base) to generate the same revenue that might be generated under a VAT (that has a broader tax base).

Minimizing loss of revenue

The loss of revenue arising out of tax evasion by the retailer is also minimized under the VAT. If a retailer hides his entire sale under the VAT, he receives no credit for prior taxes paid on his purchases. The tax revenue forgone is equivalent to the VAT on the value added at the retail stage only. In contrast, tax evasion by a retailer under the RST will result in the loss of all revenue from the commodity concerned.

Of course, this advantage under the VAT disappears when evasion by the retailer takes the form of under declaring his sale rather than outright concealment of sales. In such a situation, the revenue lost under the VAT and RST would be identical. This occurs because the retailer who under declared his sale still receives credit from taxes paid on his input purchases.

Unfortunately, evasion by retailers under the VAT is more likely to take the form of understating, rather than concealing, sales since the audit trail lapses at the retail stage (as explained before). Consumers are not required to submit receipts of their purchases for cross checking the sales of retailers. This gives retailers considerable latitude for under declaring sales.

Two strengths of the VAT remain, regardless of the form evasion takes at the retail end. First, collusion at the pre-retail stage is pointless. For example, assume a manufacturer and wholesaler collude, with the former not charging the latter the VAT on the sales and by

concealing the sales. The manufacturer now cannot claim credit for the taxes paid on his inputs since he does not report the sale to the wholesaler. By the same token, the wholesaler cannot claim credit for taxes on inputs either, since he paid no taxes and shows no purchases. Thus when the wholesaler sells to the retailer, the output of the former will be liable for VAT on both his own value added and the value added by the colluding manufacturer. Hence, there is no net loss of VAT revenue and, therefore, no net gain to the colluders.

Second, since under the VAT much of the tax is collected at the manufacturing and wholesale levels—typically dominated by larger establishments—a good part of the revenue is secured. This is especially important in economies where most retailers are small, maintain poor records and have more opportunities to evade taxes. Relying on an RST in such an environment can seriously compromise revenue collections.

The 'self-enforcing' feature of the VAT described in previous issues is also an outgrowth of the apparent complexity of the VAT's chain of collection. Since tax paid by one firm appears as credit against tax paid by another, fraud must involve more than one party and cover the entire production/distribution channel if it is to be profitable; to that extent, fraud is made more difficult. In addition, speedy crosschecking is a theoretical possibility with computerisation, although enforcement is by no means automatic. It requires effort just as in the case of the RST. Even so, the credit trail is inherent under the VAT and is obvious and available. The fact that the tax department has the documentary evidence and the means to crosscheck for fraud is itself an important deterrent. Of course, frequent auditing can heighten this advantage. This advantage is lost when credit trails are broken through exemptions or multiple tax rates. And in practice, most VAT regimes are riddled with exemptions leaving the credit trail feature severely handicapped.



The point is sometimes made that the distinction between a taxable consumption commodity and a non-taxable producer commodity is easier to hide under a RST than a VAT. In the case of the former, only a misrepresentation to the seller is necessary while in the case of the latter, one must lie to the tax authorities—a psychologically more difficult step. In the same vein, fraud of this nature is more difficult to uncover in the case of the RST than the VAT. Whereas investigating a fraud under the RST requires auditing the records of both the seller and the buyer, under the VAT, only records of the purchaser need be examined. While the actual significance of these differences is difficult to evaluate, it may tilt the balance in favour of the VAT, especially in an environment where tax evasion by smaller firms is commonplace.

Provides complete tax relief to exports

The complex method of tax collection under the VAT also ensures that producer or intermediate goods are completely relieved of the tax. Such relief is important in the case of export goods since hidden taxes reduce the international competitiveness of exports. As explained in a previous issue, in the case of exports, not only is the final commodity not taxed but also a rebate is granted for all taxes incurred on inputs used in the manufacture of the export commodity. Providing total tax relief to an export commodity under the RST, on the other hand, is more complicated and the relief is never complete in practice.

Efficient in taxing services

The VAT is also purported to be more efficient in handling taxable services than the RST. The reasoning is similar to that used in the case of capital goods; under the RST one must distinguish services to households (taxable) from services to firms (non-taxable), and grey areas result in loss of tax revenue (if the former are not taxed), or in unintended tax on production and cascade effects (if the latter are taxed). In the case of the VAT, all services are taxed and non-taxable services to businesses earn relief through tax credits.

In practice too, the scope of the VAT typically goes beyond services taxed by the RST to include construction, transport, electricity, fuel, and repair and maintenance that lie outside most RST regimes. Of course, even a VAT often excludes between 35-40 percent of expenditures on services that include many financial and banking services and rents on owner occupied homes; yet, on balance, whereas the VAT taxes about 70 percent of consumer expenditure on services in most countries, jurisdictions that rely on the RST do not come close to this figure.

Supports higher tax rates

Finally, some experts hold the view that the VAT is more efficient and easier to enforce at higher tax rates than the RST. Thus, if the envisaged rate exceeds about 10 percent, the VAT is recommended to minimise evasion. In fact, it has been suggested that Norway and Sweden, with RST rates of 13.64 percent and 11.1 percent, respectively, switched to the VAT because of this consideration.

A Potential Problem Area Under the VAT

Despite the advantages above, there is a potential source of complication under a VAT that is non-existent under a RST. Under the VAT, refunds are made to firms whose tax credit on purchases exceeds their tax liability on sales in a given period, and to zero-rated producers. Widespread zero-rating stretches the financial capacity of the treasury and increases the burden of tax administration without bringing in revenue.

The system also creates scope for fraudulent claims through the formation of 'paper companies'. Some evidence from Europe show that bogus companies have been established to make money by presenting false purchase invoices and claiming VAT refunds. Unsuspecting authorities have made such refunds since new businesses typically have tax credits in excess of tax liabilities on sales. These companies cleverly disappear before the authorities catch on or can order an audit. Other scams involving exports have also been reported in the Netherlands and Germany, where refunds were secured through the submission of false export invoices.

Conclusion

While the VAT is administratively more complex, it brings with it several advantages like minimising the erosion of the tax base and minimising revenue losses. It is better able to support higher tax rates (if necessary) and is more efficient in taxing services and providing exports complete relief from tax. The one drawback it has which does not arise in the RST regime is the necessity to provide tax refunds to those whose tax credits exceed their tax liabilities. Providing these refunds not only stretches the financial capacity of the treasury but also opens up avenues for fraudulent claims.

In our next article, we shall assess the RST and VAT within the Malaysian context in order to see which regime might be more suited to our needs.



INTERNATIONAL HEADLINES

Fed raises another quarter percent

May 03, 2005, Associated Press

The Federal Reserve nudged interest rates up for an eighth straight time, to 3 percent, and repeated a pledge to use "measured" increases to quell an increase in inflation. The Fed said in a clear warning that rates will keep rising for now. The Fed also said spending has slowed in the face of higher energy prices but the job market is improving. While prices are picking up, wage growth is near a standstill. Last week, the Labor Department said worker wages in the first quarter edged up just 0.6 percent. The next policy meeting is on June 29-30, a two-day meeting that allows the Fed to prepare for semiannual economic testimony to Congress by Chairman Alan Greenspan.

Note: The Fed began a gradual course of interest-rate rises last June, when overnight rates stood at a 1958 low of 1 percent. Economists say a neutral rate lies somewhere between 3 and 5 percent but the Fed has been loath to be specific. With five more FOMC meetings to go, policy-makers could achieve a 4 percent federal funds rate this year with one gathering to spare.



ECB leaves key interest rate unchanged

May 04, 2005, Associated Press

The European Central Bank kept its key interest rate unchanged at where it has been since June 2003, at 2 percent amid slipping economic confidence and weak growth prospects in Europe. Over the past month, leading indicators in Europe have pointed to weakening growth, and high oil prices also remain a concern. The government of Germany, the largest economy in the 12-nation euro zone, cut its growth forecast for this year to 1 percent from 1.6 percent. Germany's economy grew 1 percent in the first quarter from the previous quarter. Italy also cut its growth forecast to 1.2 percent from 2.1 percent. Meanwhile, inflation in the euro zone was unchanged in April from the previous month, at an annual rate of 2.1 percent.

Note: Trouble is brewing in Europe where unemployment rose to 8.9 percent in March. According to Eurostat, about 12.8 million people are out of work. The highest EU rate was recorded in Poland with 18.1 percent, the lowest in Ireland with 4.3 percent. In comparison, the March jobless rate in the United States was 5.2 percent and in Japan, 4.5 percent.

China needs a new anchor

May 06, 2005, Morgan Stanley

China needs to establish greater internal stability in the Chinese economy and develop greater external stability by revamping the linkage between China and the rest of the world. While China's industrialization, urbanization, and infrastructure imperatives justify a high-investment growth dynamic, they are in danger of an unbalanced economy. Even in their heydays, Japan and Korea never ran investment shares much in excess of 40 percent. China's 50 percent-plus share is a recipe for an overhang of excess supply that could ultimately lead to deflation. At the same time, China must also rethink its external anchor. The dollar peg, which served China so well over the last decade, has outlived its usefulness. It has become a hot button for China bashers in the US Congress, and it has led to the creation of excessive money and credit in the Chinese financial system, which could ultimately destabilize the economy. The Shanghai property bubble is a warning sign that needs to be taken seriously in this regard. In addition, its export-led growth is dependent on the American consumer; at least a third of all Chinese exports go to the US. A decline in the US economy, which is very much expected, could clearly be detrimental to China's economy. As its market economy comes alive, China must wean itself from a US-centric growth model and a dollar-centric currency regime. That would be a wise and prudent move in the face of America's looming current account adjustment. It would also be the right choice for an increasingly unbalanced Chinese economy.

Stagflation, the remix

May 07-13, 2005, The Economist

Stagflation has a distinctive beat: slow growth, rising inflation, high oil prices and weak labour markets. Nevertheless, today's version of stagflation bears scant resemblance to the 1970s. The 1970s stagflation resulted in an extended period of loose monetary policy to accommodate the demand-crippling effect of oil shocks by printing money but today, both ECB and the Fed are adamant about running a tight monetary policy. On the US side, much depends on the continuation of interest rate hikes, as currently real interest rates in the US are barely positive. Besides that, contrary to the declining productivity growth in the 1970s, productivity today is still growing, albeit at a slower pace. Global competition has left little room for excessive wage demand.

US imposes new textile quota on China

May 16, 2005, OSK Research

The Bush administration announced that it has decided to re-impose quotas on selected textile imports from China, a measure deemed necessary to protect the domestic industries. U.S. imposed limits on imports of cotton trousers, cotton knit shirts and underwear from China. The limit says that imports in the three categories will be allowed to rise by just 7.5 percent. The Commerce Secretary said the lifting of global quotas since January was disrupting the domestic market as imports surged.

Singapore's economy shrinks in 1Q 05

May 18, 2005, OSK Research

Singapore's economy shrank by 5.5 percent annual pace following a sharp decline in pharmaceutical production. From a year ago, the economy gained 2.5 percent, marginally higher than earlier estimate of 2.4 percent. Electronics output expanded 11 percent but was dragged down by a 24 percent decline in pharmaceutical. The Government cut its growth forecast for the year from 3-5 percent to between 2.5-4.5 percent.

