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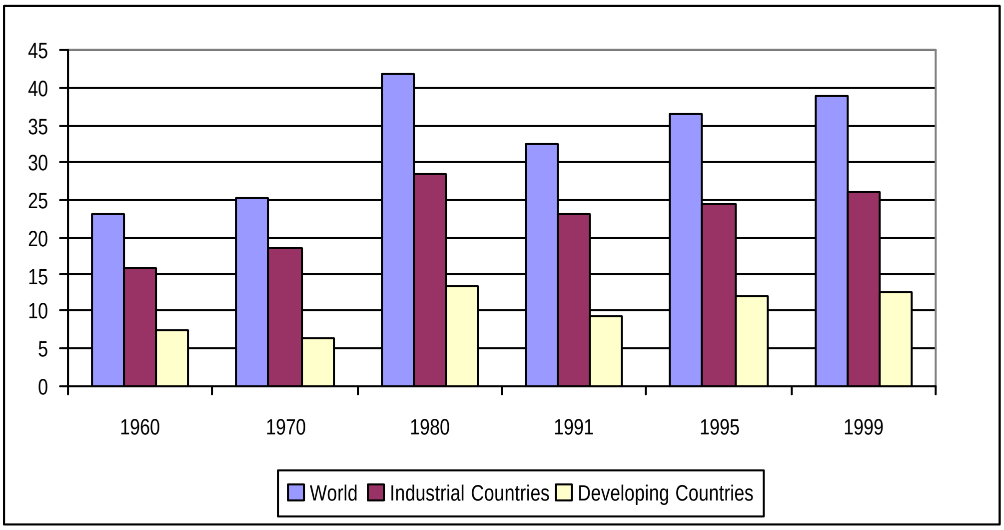
Inside this issue:

Asia's Globalisation Challenge

General Impacts of Globalisation

Globalisation has brought about changes to the developed as well as the developing countries. These changes are reflected in trade and capital flows across countries. World merchandise trade has increased over the past decades since the intensification of the globalisation process and as shown in Figure 1, merchandise trade as a percentage of world GDP has increased. Similar trends are observed for the percentages of merchandise trade from the industrialized and developing countries.

Figure 1: Merchandise Trade As A Percentage Of The World GDP



Source: Derived from ADB, *Asian Development Outlook 2001*

Likewise, increase in capital flows is reflected in the increase of FDI (foreign direct investment) flows across countries. Figure 2 shows the inflow of FDIs to the world, be it industrial countries, developing countries or Asia. An increase of inflows is observed for all these four sectors. Most of the FDI inflows are still to the industrialised countries, which accounted for 89 per cent, 74 per cent, 64 per cent and 81 per cent of the world FDI inflows in 1980, 1991, 1995 and 1999 respectively, as shown in Figure 2.

Globalisation has also changed the way the governments perceive their roles in developing the society and community. For example, many of the governments in the developing and industrialising countries are now emphasising human resource development (HRD) as well as the adoption of ICT (information and communication technology). Governments in the developing and industrialising countries are also giving more emphasis to the importance of science and technology, as can be seen in the

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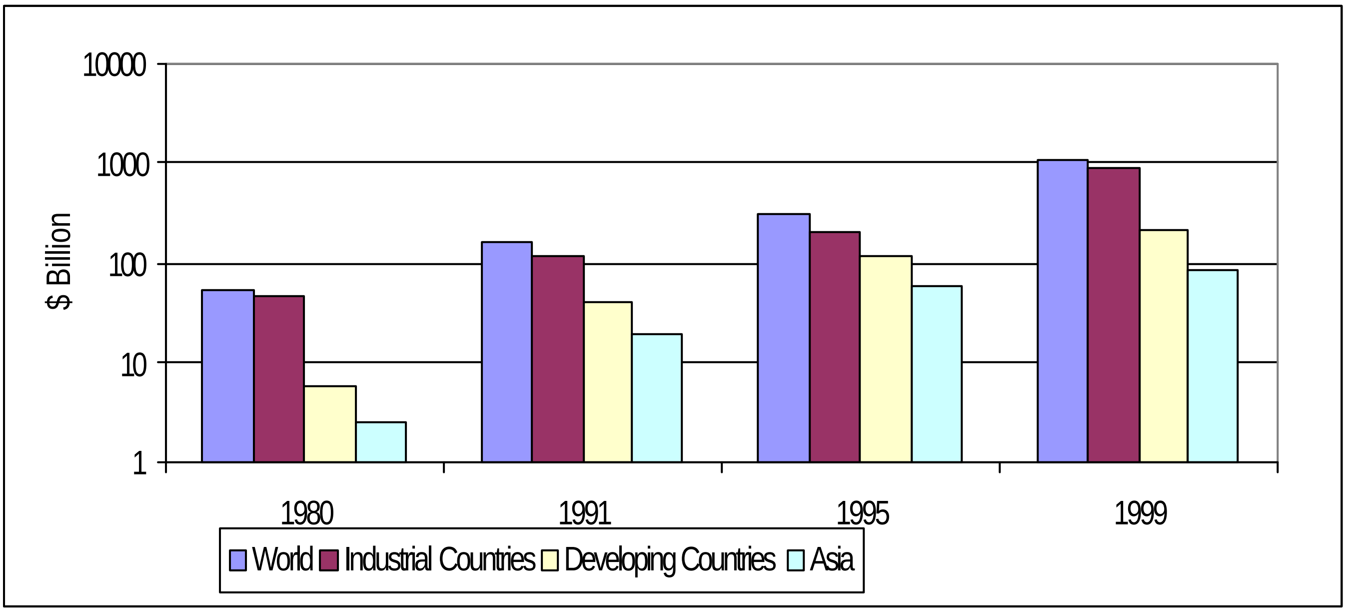
Figure 2: Foreign Direct Investment Inflows ($ Billion)



Source: Derived from ADB, *Asian Development Outlook 2001*

education policy of Malaysia, i.e. to produce more science and engineering graduates as compared with the earlier years after Independence, when emphasis were given to produce more arts and administrative graduates.

Changes in the trade and capital trends as well as the role of the government have resulted in increased competition among nations. Both the industrialised and industrialising countries are competing for FDIs, skilled human resources as well as markets. Such competitions eventually result in the expansion of budgets for HRD, innovation activities, education and infrastructure system to improve productivity, hence, to enhance competitiveness.

Globalisation In Asia

The Asian economies have recorded rapid growth during the past three decades. This was generally an export-led growth, which was accompanied by high savings and investment rates in most of the Asian economies. Competitive pricing as a result of low cost production and labour as well as the favourable investment climate provided by many of the Asian governments contributed to this export-led growth. The ever-changing global demand also contributed to this growth because there are constant demands for more production and exports, particularly to the developed countries.

Many of the Asian economies experienced inflows of technology from the industrialised countries as a result of this development and thus are able to produce for the global market. The Asian economies, through the MNCs (multinational corporations) that are operating in these economies, are also able to bridge the technology gap and to adopt and adapt these technologies to participate in the global markets. The governments, through the provision of necessary policies and incentives have also helped to facilitate this effort and enable the economies to catch up with the industrialised countries.

However, growth in most of the Asian countries is attributed to the factor inputs of labour and capital rather than the creation of new technologies. This is because the companies that are competing in the global markets are mainly foreign-owned, and as such, the technologies that are being utilised in these countries are not indigenous technologies. There is still a big gap between local and foreign technologies and the developing countries in Asia have yet to develop their own indigenous state-of-the-art technologies. As such, labour input from the developing countries and capital input from the MNCs are deemed as drivers for economic growth in the Asian economies. It is only in the past decade that the governments began to emphasise human resource development to upgrade and enhance the skills level of its local workforce as well as to embark on innovation activities to induce TFP-based (total factor productivity) growth rather than growth that is based on accumulation of factor inputs.

A general trend of globalisation based on the reliance on market forces and comprehensive guidance by the Asian governments to achieve the requisite of resources are summarised as:

- Shift from the production of labour-intensive products to higher value-added as well as skill- and capital-intensive exports
- Declining primary and commodity exports and increasing trade in high-end consumer and electrical & electronics products
- Introduction of new products that are unrelated to the traditional banking and financial services in the Asian financial sector
- Freer labour movements within Asia

General Policy Implications

There are two fundamental policy implications that could be adopted by the governments in Asia, namely to maximise benefits and to minimise risks.

Maximising Benefits

Maximising benefits can be carried out through two approaches as discussed below:

1. Managing Economic Learning

Historically, most of the Asian countries imported technologies from the west or industrialised countries, especially during the early stages of development. Their approach was to emulate and imitate rather than to develop new technologies or to innovate. Many countries in Asia actually emulated Japan, and Malaysia was one of them when it embarked on its *Look East Policy* in the early 1980s. Some other countries like Taiwan actually brought back its skilled people, especially from the US, to develop its industrial sector.

When the Asian countries move closer to the technology frontier as evidenced by their growth rates that are approaching or have outstripped the growth rates of the developed countries, the opportunities of these countries to progress through emulating the developed countries began to diminish. The same situation also arises when the cost of doing business in the developing countries have risen excessively so much so that they are no longer attractive for FDIs. The developing countries would then have to rely less on growth that is based on accumulation of factor inputs because economic growth at this stage responds less to capital formation and labour input but more on innovation and other sources of productivity enhancement.

Entrepreneurs in the past have adapted distant technologies to produce goods for the distant markets, whether in the developed or developing countries. These entrepreneurs either copied or purchased technologies from the developed countries to produce their goods. Adoption and execution of these technologies do not necessarily facilitate the transformation of business and production into a more innovative one. This is mainly because the newer technologies are always developed nearer to the home base of the companies. Nevertheless, with globalisation, innovation and R&D centres are being set up nearer to the markets, thus generating multiplier effects to the adjacent economies and developing industry clusters in these economies. The governments of the developing countries have also formulated policies to foster the channels of technology transfer through various programmes and regulations such as promotion of FDIs, imports of capital and intermediate goods, licensing arrangements, joint ventures, venture capital funds, outsourcing activities and HRD.

The Asian model is successful mainly because it has a combination of emphasis on export promotion and the availability of a pool of skilled human resource. The domestic firms were subjected to intense competition by the presence of foreign MNCs and this applied pressure on the domestic firms to emulate the best practice from their customers, suppliers as well as their competitors. In addition, the domestic firms also encountered restraints on entry to the global markets as a result of policy interventions, which were guided by well-defined rules. A consequence of the actions taken by technocrats who enjoyed the bureaucratic autonomy that is necessary to avoid the markets being taken control of by the domestic firms.

While globalisation has created opportunities for the developing countries to explore and penetrate the global markets, globalisation has also made it more difficult for Asian economies to approach the technological frontier. As these economies reach the more advanced stages of technical development, they have to rely more on their indigenous technological innovations. This requires a change in their policies, regulations as well as incentive systems, to include the growth of more flexible smaller firms and outsourcing arrangements, the development of local entrepreneurs as well as the growth of the security markets for companies going for IPO. In addition, government intervention will also have to be reduced. Such development also involves the need for a higher level of skilled workers, especially those in the field of science and technology. Unfortunately, many Asian economies have yet to equip themselves with an adequate supply of manpower with such qualifications and capabilities except for Hong Kong, China, Singapore and Taipei. It is believed that these four countries have larger shares of post secondary students enrolled in scientific and engineering fields than the other developing economies.

2. Exploiting The New Economy

Globalisation as a result of economic liberalisation and technological breakthroughs in ICT has reinforced the huge impact of ICT forces to reshape the present economic structure of the Asian countries into the new economy, called the information-economy or the knowledge-based economy. However, the impact of the ICT revolution on the economic performance of the Asian economies or any other economy is difficult to quantify. Measuring the impact of ICT, computers and the Internet is complicated because these three components are interrelated and also because of the lack of time-series data.

The NIEs, China, India as well as the original members of ASEAN, particularly Malaysia, Philippines and Thailand, have experience in the production of electronics exports in which the new economy's best business practices of outsourcing and flexible production systems are already highly developed. These countries are relatively well placed to take advantage of the opportunities in the new economy, provided they can adapt and adopt the economic systems. The future trends that are anticipated in these countries are as follows:

1. Growth of trade will create additional opportunities to develop export markets. This is evidenced by the volume of world trade that has grown faster than the GDP for several decades as a result of declining barriers for trade.
2. ICT revolutions could create opportunities for developing countries to export skill-intensive services. Asian countries like India, Philippines and Singapore have developed substantial software and data entry platforms in the past decade that help place these economies in a position where they can have better access to the knowledge & information aspects of the new economy.
3. Growth of the Internet may create a more level playing field, particularly in helping to enhance the capacity of the poor countries to bid for subcontracting services and to market their products.
4. The developing countries will receive a greater payoff from an improved education-level and skill capabilities. An improvement in all social aspects, including health is also anticipated.
5. There will be more opportunities for the development of niche markets through foreign partnerships, outsourcing as well as strategic alliances because the ICT revolution allows for better product quality and delivery.

<u>Minimising Risks</u>

The second policy implication is to minimise risks. It is irrefutable that global trade is volatile. When the developing countries integrate into the global economy, they are increasingly exposed to external disturbances. An example of such disturbances is the present global semiconductor slump or downturn that has affected export-oriented nations like Singapore and Penang in Malaysia. The economies become increasingly susceptible to the contagious spillovers from the global, regional and national financial and business shocks as the markets become increasingly globalised. Such volatility has an undesirable effect on poverty, distribution of income as well as educational attainment. This is especially so for people who are employed in the poor sectors and economic activities, as these communities will experience cuts in their social spending during crises.

If globalisation can increase volatility and volatility can slow growth and exacerbate poverty, then policies and institutions are required to limit such volatility and to minimise its impacts. Some of these policies and institutions include the following:

1. Strengthening the financial sector by reinforcing supervision and regulation as well as by removal of blanket guarantees.
2. Liberalising FDIs, which is least likely to aggravate weaknesses in the domestic banking system.
3. Internationalising the banking system to allow entry by foreign banks. This is perceived to be a low-cost method to upgrade the banking sector's risk management capacity, although is may result in some margins squeeze, intensify pressures on the smaller and weaker institutions as well as undermine effective measures designed to limit portfolio flows.
4. Regulating foreign exposure to allow the government to micromanage the process of liberalisation.
5. Developing the stock and bond markets. However, the stock and bond markets tend to develop only when bank finances are well established. Furthermore, there is also a pressing need for information on the markets.
6. Accumulating reserves to withstand the financial crises. Countries that run chronic current account deficits and those seeking to limit exchange rate variability should hold large reserves.
7. Arranging commercial credits to ensure the availability of adequate liquidity in an emergency. The best practise is to negotiate commercial credit lines in advance, that is, from the point of borrowing to provide addi-

tional resources to insure against shocks to investor confidence.

8. Strengthening monetary and fiscal institutions to build credible policy-making institutions.
9. Managing exchange rates, i.e. whether to opt for a hard peg or a soft peg. When a country opted for a hard peg, it means that the currency is fixed using a currency board or where the currency of another country has been adopted. On the other hand, when a country opted for a soft peg, the currency is tied to another currency or a basket of currencies either through a peg, a crawling peg, or bands around a reference rate.

It is perceived that there are two policies/approaches that could assist in minimising risks, especially to the poor. The short-term approach is basically to provide employment that ensures the generation of income for the poor. The long-term approach, on the other hand, would be more useful in an economically globalised world, i.e. to foster the accumulation of various forms of human capital, including the enhancement of the education system and skills upgrading.

Malaysian Policies And Institutional Framework

The Malaysian Government's policy objectives in the past emphasised poverty eradication and social restructuring to achieve a balanced development. These objectives have remained the key thrusts for the Government until today. However, since the Fifth Malaysia Plan, which was launched in the same year as the first Industrial Master Plan (1986-1995) for the nation, the Government began to emphasise the importance of the manufacturing sector as a key income earner for the nation. The Industrial Master Plan was then replaced with the Second Industrial Master Plan (1996-2005), which emphasised the importance of developing more value-adding activities.

Malaysia, particularly the export-oriented industrialised states experienced economic recession in the mid-1980s, after the launch of the Industrial Master Plan. However, upon recovery from the crisis, the Malaysia economy grew rather rapidly until the Asian financial crisis hit the country in mid-1997. This crisis, however, did not affect the Penang economy as much as the other domestic-oriented economies in the country. The export-oriented sectors in Penang were still thriving. The comparative advantages of the export-oriented sector increased further as a result of the pegging of the ringgit to the US dollar.

At the national and state levels, the governments put in great efforts to churn out action plans that could help alleviate the effects and to prise the country out of the crisis. The National Economic Recovery Plan was a result of these efforts through the high profile secretariat of the National Economic Action Council. For the first time in Malaysia too, a special consultancy team on Globalisation was set up under the Council.

Today, the country is facing yet another economic downturn as a result of the global semiconductor and electronics glut as well as the economic crisis in the US. The effect of the present economic downturn is even greater than the Asian financial crisis that hit Malaysia in mid-1997. This time, both the domestic- and export-oriented sectors are facing the slump.

As an outcome of the present economic slowdown and the actions taken by the National Economic Action Council, the Government has begun to pay more attention to globalisation and its effects. In the recent Eighth Malaysia Plan, special emphasis was given to positioning industries for globalisation, discussing the challenges of AFTA (Asean Free Trade Area) and WTO (World Trade Organisation) and the importance of information. The Third Outline Perspective Plan (2001-2010), which was launched this year, also emphasises ways and means to meet global competition, i.e. through increasing productivity; strengthening science & technology and research & development; developing entrepreneurial and technopreneurial capacity; developing world-class companies as well as developing local small- and medium-industries. This recent plan also emphasises the importance of developing a knowledge-based economy, something that the government has made little reference to in the past.

The Malaysian economy will recover only when the US economy recovers and when the global markets stabilise. However, would Malaysia be able to compete globally and sustain its competitiveness with only limited changes in its policy objectives or does Malaysia need a major restructuring to meet the globalisation challenges? No clear direction or roadmap has emerged. However, the new policy objectives of the Government that emphasise human resource development, information and communication technologies, increasing productivity and the development of a knowledge-based economy would assist in dealing with the issues associated with global challenges. ***§ Anna Ong***

Establishing the Habitat for Innovation and Entrepreneurship in Penang

There have been many comparisons made between the Silicon Valley and Penang. One can often hears references to Penang as the "Silicon Island" of Asia, Malaysia's answer to the Silicon Valley. Indeed, there are many similarities between the Silicon Valley and Penang. Just as the Silicon Valley is one of the centres of technology of the United States, birthplace of technology behemoths such as Hewlett Packard, Fairchild, Intel and many others. Penang, too, is one of the hubs of technology in Malaysia, boasting the presence of technology multinationals from around the world, such as Agilent (formerly H-P), Intel, AMD, Motorola and Bosch, among others.

Through the presence of these companies, Penang has become one of the most urban and developed states in Malaysia, with its per capita GDP being 1.47 times that of the country as a whole in 2000, according to the 8th Malaysia Plan. Its workforce is among the most competitive in the region, as is reflected by the choices of Dell and Intel to set up their regional headquarters in Penang. In addition, Penang is also home to several large local companies, Eng Technologies and Globetronics, being two examples, which have expanded their operations beyond the country's borders.

However, despite these similarities, there are still areas where Penang falls short of the Silicon Valley. While Penang has been relatively adept in catching up with and in attracting the "products" of the Silicon Valley, Penang has been less quick to establish the enabling environment for entrepreneurship that made the Silicon Valley such a success.

This enabling environment was a main theme in a recent talk entitled "The Silicon Valley Edge" by Professor William F. Miller, Professor Emeritus at Stanford University and a member of the International Advisory Panel of the Multimedia Super Corridor. There has been some skepticism as to the viability of the Silicon Valley in the heat of the current technology downturn but Professor Miller continues to hold faith. He noted that this is the third venture and technology downturn the Silicon Valley has been through, with the first occurring in the 1970s, the second in the 1980s, and the third being the current one. However, despite these downturns in technology, the Silicon Valley was able to reinvent itself successfully to meet new challenges, largely due to several factors that created an enabling environment for entrepreneurship

The aspects which hold more interest to Penang include the free flow of ideas and the initiatives and leadership taken by the private sector. Dr. Miller drew attention to the synergy between the local university (Stanford University) and businesses in the region. Indeed, many of the founders of successful Silicon Valley companies were themselves graduates of Stanford University. The professor also noted that this tradition stretches back to the very first president of Stanford, who himself invested $500 in a business in the 1890s.

Indeed, with the presence of Universiti Sains Malaysia, a major national university, and many other private colleges, Penang possesses one of the key elements that made the Silicon Valley a success. However, at present, there is still little synergy between these educational institutions and businesses, there being little interaction and collaboration between them. Penang must not let this advantage go to waste but, instead, further encourage and develop business-university collaboration and activities.

However, there is only so much public policy can do. One striking difference between the Silicon Valley and the Silicon Island (or Malaysia in general) seems to be the differential roles of public and private sectors in these two locations. In his talk, Professor Miller gave special emphasis to private sector drive and initiative was one of the key features of the success and resilience of the Silicon Valley.

Noting the protracted downturn which afflicted the Silicon Valley from 1985-1993, Professor Miller noted the proactive stance taken by the private sector in the Silicon Valley, with many leading CEOs and other businessmen forming Non Profit Organizations and becoming Civic Entrepreneurs. Their activities, which focused on the sharing of people and knowledge, enabled the region to revitalize itself and eventually led to its emergence as a leader of the technology boom in the 1990s.

Professor Miller explicitly stressed the importance of the free flow of capital, people, and knowledge, as one of the key factors of the success the Silicon Valley, not only in leading during the good times, but in reinventing itself during the bad times to lead once again in the next boom. This culture, which Professor Miller describes as a "regional network-based industrial system that promotes collective learning and flexible adjustment" is still somewhat lacking in Penang.

While one can always call for "greater efforts" on behalf of the government to "promote" and "encourage" such activity, it is ultimately up to the private sector in Penang to continue to cultivate this culture. Professor Miller notes that during the slowdown of '85-'93, many of the Non-Profit Organizations were formed by CEOs and other leading figures of the private sector. Activities of these organizations were community based, seeking to enhance the capabilities and well-being of the local communities, which in turn would provide reciprocal benefits to the corporations operating in the community.

To be sure, we have seen several similar initiatives carried out by the private sector in Penang. However, the main stumbling block in Penang seems to be the "free flow", or networking part. Many of these initiatives are often on a much smaller scale and often done independently or in small groups rather than on a collective basis. Professor Miller noted that in the Silicon Valley Smart School project, over 500 schools in multiple districts were linked up, with teachers trained in IT, and with follow ups and benchmarking in the form of yearly reviews of the progress and results of the project, a process that continues till today.

In the past three decades, Penang as a state has progressed greatly and can be considered as having 'caught up' with the developed nations in many aspects. However, in order to move to the next level and take its place as a leader in the world, improvements need to be made with respect to the business environment in Penang. At the moment, many corporations are still jealously guarding not only their business secrets, which, of course should be guarded jealously, but also every other shred of data they have, which may be better utilized were it shared and discussed openly with their peers. It is imperative that Penang continues to move away from this "zero-sum-gain" and "every person for himself" mentality and approach a more collaborative and cooperative view. This in essence, is the next step, from becoming a power in successfully producing the products of success, to producing success itself. ***§ Terence Too***