ECONOMIC BRIEF
NO. 6

ASEAN COUNTRY PROFILE
SINGAPORE: THE NEXT LAP
The PITO Economic Brief Series

The Private Investment and Trade Opportunities (PITO) project seeks to expand and enhance business ties between the U.S. and ASEAN private sectors. PITO is funded by a grant from the United States Agency for International Development (AID) with contributions from the U.S. and ASEAN public and private sectors.

The PITO Economic Brief series, which is published under this project, is designed to address and analyze timely and important policy issues in the ASEAN region that are of interest to the private sectors in the United States and ASEAN. It is also intended to familiarize the U.S. private sector with the ASEAN region, identify growth sectors, and anticipate economic trends. The PITO Economic Brief series is edited and published by the Institute for Economic Development and Policy of the East-West Center, which coordinates the Trade Policy and Problem Resolution component of PITO.

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Of the many Asian economic success stories, the economic growth and development of Singapore is perhaps the most exciting. From just over 30 years ago, when the country achieved independence from the United Kingdom, Singapore today stands on the brink of achieving the status of a developed economy. Visitors to Singapore are treated upon arrival to the world’s best airport and to a multitude of advanced and efficient services. Indeed, with a life expectancy of 74 years, an infant mortality rate of 7 deaths per 1,000 live births, and a literacy rate of almost 90 percent (Table 1), many already consider Singapore to be a developed country. While this latter point may be debated, no one would disparage the phenomenal economic success story of Singapore. In fact, Singapore’s new vision, called "The Next Lap," is to achieve a level of economic welfare on par with the developed countries by the end of the decade.

However, Singapore’s road to development has not been easy. As a small city-state void of even the most essential natural resources, including its own drinking water, the country’s success or failure has always hinged on development and utilization of its human resources. It has also had to delicately balance the pressures of a multiracial society of 2.7 million persons (Table 2), three-quarters of which are Chinese and which includes large Malay and Indian minorities. Nonetheless, through a unique combination of export-oriented policies, virtually no protection of
Table 1 Indicators of Social Development in Singapore

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy</td>
<td>64</td>
<td>74</td>
</tr>
<tr>
<td>Infant mortality rate (per 1,000 live births)</td>
<td>36</td>
<td>7</td>
</tr>
<tr>
<td>Literacy rate</td>
<td>na</td>
<td>87</td>
</tr>
</tbody>
</table>

NOTE:
na = Not available.

Table 2 Size of ASEAN Countries in 1990

<table>
<thead>
<tr>
<th>Country</th>
<th>Population (millions)</th>
<th>Area (1,000 km²)</th>
<th>GDP (US$m)</th>
<th>Per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>177.6</td>
<td>1,919</td>
<td>93,966</td>
<td>529</td>
</tr>
<tr>
<td>Malaysia</td>
<td>17.8</td>
<td>330</td>
<td>42,509</td>
<td>2,388</td>
</tr>
<tr>
<td>Philippines</td>
<td>60.7</td>
<td>300</td>
<td>46,473</td>
<td>766</td>
</tr>
<tr>
<td>Singapore</td>
<td>2.7</td>
<td>1</td>
<td>34,599</td>
<td>12,815</td>
</tr>
<tr>
<td>Thailand</td>
<td>56.3</td>
<td>542</td>
<td>81,388</td>
<td>1,446</td>
</tr>
</tbody>
</table>

NOTE:

its domestic industries, and heavy government intervention and control, Singapore managed to propel itself to become a strong manufacturing, trade, and financial center.
ECONOMIC TRENDS AND POLICIES: PRESENT AND FUTURE

The rate of economic development of Singapore has been phenomenal. The country’s rate of real economic growth averaged 9 percent a year over the 1970s and over 6 percent a year over the 1980s (Table 3). The relatively slower growth in the latter decade is mainly the result of the recessionary years 1985/86, which were caused in large part by the Singapore government’s attempt to force quick economic upgrading by rapidly increasing wages. Over the period 1987–1990, the country’s average economic growth rate was 9.5 percent per annum, which is on par with growth of South Korea and is greater than growth of any other country in the Asia-Pacific region except Thailand. The expansion is expected to continue, albeit at a slower pace. Combined with a relatively slow rate of population growth, this economic expansion has resulted in a very high per capita gross

Table 3 Basic Economic Statistics of Singapore

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth of real GDP</td>
<td>9.0</td>
<td>6.3</td>
<td>11.1</td>
<td>9.2</td>
<td>8.3</td>
<td>5.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>6.7</td>
<td>2.3</td>
<td>1.5</td>
<td>2.4</td>
<td>3.5</td>
<td>4.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Gross domestic saving</td>
<td>30.0</td>
<td>42.3</td>
<td>41.7</td>
<td>42.7</td>
<td>44.2</td>
<td>44.9</td>
<td>45.5</td>
</tr>
<tr>
<td>Export growth</td>
<td>26.8b</td>
<td>13.0c</td>
<td>38.3</td>
<td>13.8</td>
<td>14.0</td>
<td>8.0</td>
<td>8.7</td>
</tr>
<tr>
<td>Import growth</td>
<td>25.4b</td>
<td>11.9c</td>
<td>34.9</td>
<td>13.3</td>
<td>14.0</td>
<td>10.0</td>
<td>13.0</td>
</tr>
</tbody>
</table>

NOTES:
na = Not available.
a. Estimates.
domestic product (GDP) of more than US$12,000, the highest level in Asia after Japan. Moreover, the robust growth has been achieved with a low rate of inflation and an ever-strengthening currency.

A key component of Singapore's economic expansion has been the large role of the international sector. The trade sector accounted for between 144 percent and 153 percent of GDP, the highest ratios in the region, due to the country's status as a free port and entrepôt and refinery center. Robust export growth fueled the recent economic expansion and will do so in the future.

With its small market, Singapore has been forced to take advantage of the international market for its economic development. In its early stage of development, Singapore's economy was dominated by entrepôt trade carried out primarily with Indonesia and Malaysia. It imported manufactured goods from industrial countries for re-export to these two countries. In turn, Singapore imported minerals and other raw materials from Malaysia and Indonesia for re-export to the industrialized countries after processing and packaging. With Malaysia and Indonesia's attempt to increase their own direct trading and the few jobs created in these sectors, the Singaporean government was prompted to look for new avenues of economic expansion.

Singapore chose to build its own manufacturing base. Although initially Singapore attempted to do this with import substitution policies and high tariff barriers, it was quickly understood that because of its small market, such a policy regime would not work. Ironically, its small market has proven to be a blessing
in disguise. Singapore never had the option of launching large-scale import-substitution programs. Instead, the government encouraged the development of the international trade and investment sectors to take advantage of Singapore's strategic location in the Malacca Straits and to exploit an international, rather than national, market. To maximize the returns from this approach, the Singapore government completely opened its borders to international trade; it is a free port.

As a result, Singapore's rapid growth has been accompanied by rapid change in the structure of the economy. The manufacturing sector grew steadily throughout the first two decades of independence, and in 1990, manufacturing output amounted to over one-fourth of GDP (Figure 1). However, the significance of the traditionally strong sectors such as manufacturing, commerce, and transport and communication has been declining. As a share of GDP, output of these sectors has fallen, while the output of the financial and business service sectors as a share of GDP has been growing rapidly. From 17 percent in 1970, financial and business services increased to 30 percent of GDP in 1990, making it the largest sector in Singapore that year. These changes are indicative of the maturing of the Singapore economy as it moves toward a more services-based economy, a trend that the government is encouraging through the promotion of Singapore as a "total business hub."

Singapore's export-oriented development strategy was complemented by a very liberal policy toward direct foreign investment (DFI) from the start. The government rationale was
Figure 1 Distribution of Singapore's GDP

that it would be too slow and unpredictable to rely on local capital and entrepreneurship, as local entrepreneurs were steeped in the traditions of entrepôt and retail trade and had no expertise in manufacturing. DFI, it was believed, would allow Singapore to industrialize quickly and efficiently, as foreign investors possess capital resources, entrepreneurial spirit, technological and managerial know-how, and marketing ability and networks. Today, Singapore has among the most liberal policies towards DFI in the world.
The importance of DFI in the upgrading and advancement of the economy cannot be overstated. Its contributions in terms of financial and physical capital were critical in the early stages of Singapore's development. While the importance of DFI as a source of financial funds has diminished, Singapore's dependence on DFI has not as the country continues to rely on foreign technologies, entrepreneurship, know-how, and managerial skills. Without doubt, Singapore will continue to court DFI aggressively.

Another element of Singapore's development is its extremely high savings rates. Due to a thrifty society and mandatory savings (which has been reduced from 25 percent to 10 percent of wages for both employees and employers) under the social-security system, namely, the Central Provident Fund, the average savings rate in Singapore over the 1981–1990 period came to a phenomenal 42.3 percent of GDP. This high savings rate is head-and-shoulders above the savings rate of any other country in this region. In turn, these high savings rates, coupled with inflows of foreign investment, have enabled domestic investment in Singapore to grow rapidly without an accumulation of debt. Indeed, Singapore, which is famous for its large foreign presence, has itself become an important source of DFI in its neighboring countries, particularly in the Malaysia southern state of Johore.

While Singapore comes close to being a laissez-faire economy in the realm of international trade and investment policies, the government does play a major role in the economy. For example, the Singapore government plays a key role in determining wages, in part through the Central Provident Fund.
The government is also a major player in the housing market (managing four-fifths of dwelling units). Through the Public Utilities Board and Mass Rapid Transit Corporation, it controls utilities and local transportation. The government also directly controls about 100 firms and has shares in a large number of others. Public enterprises account for 7–8 percent of output and employment. In the financial sector, government-owned banks, holding companies, and regulatory agencies play a major role. Recently, the Monetary Authority of Singapore decided to require a capital-asset ratio of 18 percent, which is twice the standard set by the Bank of International Settlements. In addition, social and political restrictions differentiate Singapore from its sister city-state, Hong Kong, which is probably the only truly laissez-faire economy in the world. Yet, for all practical purposes, Singapore is an open economy for international traders and investors.

The country's leader from the time of its independence through 1990, Prime Minister Lee Kuan Yew who is sometimes criticized for his autocratic style in the socio-political realm, is widely credited for implementing the forward-looking economic policies which emphasize efficient markets. Another part of his legacy is a smoothly running and highly efficient government machinery, without the type of corruption which often accompanies strong governments. Although he stepped down as Prime Minister in 1990 in favor of Goh Chok Tong, the policy emphasis in Singapore remains unchanged. Lee Kuan Yew has taken the position of Senior Minister and continues to exert his influence. Moreover, his son, Brigadier-General Lee Hsien, has emerged on
the political scene, further assuring the continuation of a consistent policy regime. The ruling People’s Action Party (PAP) continues to have an overwhelming majority of seats in the legislature, but the recent 1991 elections yielded what were perceived to be significant electoral losses, even though the PAP still received a solid 61 percent of the vote and controls all but 4 seats.

TROUBLE ON THE HORIZON

The international nature of the Singapore economy makes it quite vulnerable to adverse changes in the world trading environment. Especially in the 1980s, the increasing use of new types of protectionist practices by countries that are Singapore’s principal export markets has been a source of great concern. While protectionist policies in developed countries have to some extent had an adverse effect on Singapore, they have contributed to a shift towards production of more sophisticated exports and export of services in this city-state, as the protection tends to be in “sensitive” labor-intensive manufacturing industries. In addition, Singapore’s "graduation" from the U.S. Generalized System of Preferences program, which thereby eliminated Singapore’s tariff-free status for eligible manufactured exports in its most important market, has led to further restructuring incentives.

The formation of trading blocs among Singapore’s trading partners also poses a threat to Singapore as these blocs can result in trade and investment diversion. With the "EC 1992" program which aims to create a unified market among the European countries, the October 1991 agreement to form a close-
knit European Economic Area between the EC countries and the countries of the European Free-Trade Area, and the EC's determination to grant preferential status to East European countries, Singapore will be competing in the EC market at a significant disadvantage. In addition, the U.S.-Canada Free Trade Area of 1989, the current negotiations to form a North American Free Trade Area which includes Mexico, and calls for a hemisphere-wide free trade area in the United States is of grave concern to Singapore not only because of the inherent trade and investment diversion that will follow such an accord, but also because of the possible adverse impacts a fragmented international marketplace with, perhaps, rival trade blocs may have on this Asian nation. In its efforts to keep international markets open, Singapore has stressed the need for a successful completion of the on-going multilateral negotiations under the auspices of the GATT (i.e., the Uruguay Round).

Thus far, Singapore has resisted calls to form an Asian trading bloc, such as the creation of an East Asian Economic Grouping that was proposed by Malaysia, to confront the regionalism taking place in Europe and North America. The government also continues to insist that Singapore wishes only to join organizations that will be outward-looking rather than closed. However, the Singapore government is keeping its options open, even at the bilateral level. For example, on October 11, 1991, Singapore signed a Bilateral Trade and Investment Framework Agreement with the United States. The agreement endeavors to promote open economic interchange by creating bilateral consultative
mechanisms to settle any grievances, including the exchange of lists of trade and investment barriers. While the agreement does not stipulate any guarantees, it represents an important step by Singapore to keep close relations with its most important economic partner.

Moreover, the current economic slowdown in developed countries is having a dampening effect on Singapore's growth. The 1990–1991 stagnation/recession in the United States will possibly continue into 1992 and is an important reason why Singapore's GDP growth forecasts project slower growth in 1991–1992 (Table 3).

On the domestic front, Singapore successfully made the shift from an entrepôt to a manufacturing center and seems likely to make the next shift to a financial and business sector with equal determination and skill. The shortage of labor has encouraged Singapore to turn toward its ASEAN neighbors. In addition, Singapore has many public enterprises that, while profitable, may benefit from preferential treatment. Privatization has gone slowly and with some difficulty, limiting local capital market development. Further, rapid economic development of Singapore's ASEAN neighbors, though having a stimulating effect on export demand and investment opportunities for Singapore, is leading to increased competition in a variety of up-scale product lines and, increasingly, services. An example of this trend was the split of the Malaysia/Singapore stock exchange in 1990, which reduced the capitalization of the Singapore Stock Exchange by one-half.
FUTURE SOURCES OF GROWTH AND OPPORTUNITY

Among the many opportunities for growth and investment, several new developments in the Singapore economy are particularly noteworthy. More specifically, these salient areas include the growing financial and business services sector, the establishment of a science and technology center, the development of a growth triangle, the move towards an ASEAN Free Trade Area, and the impacts of Hong Kong's integration with mainland China in 1997.

Finance and Business Services

As was noted earlier, the finance and business services sector is now the largest sector in the Singapore economy. The government's Economic Development Board has been actively promoting Singapore as a total business hub, and has encouraged companies to design, develop, produce, market, export, and service their products, as well as manage their funds from operational headquarters in Singapore. Global companies are also encouraged to use Singapore as a strategic node for the Asia-Pacific region. So far, over 3,000 American, Japanese, and European multinational firms, many of them leaders in their industries, have set up operations in this Asian country. A growing number of these firms not only use Singapore as an offshore base for manufacturing, but also engage in related business activities such as design, product development, technical servicing, fund management, marketing and distribution, and regional business management. World-class multinationals with regional headquar-
ters in Singapore include Exxon, General Motors, Glaxo, and Hewlett-Packard.

**Science and Technology Center**

As Singapore has been upgrading its economy, it is looking to not only adopt but to also develop cutting-edge technologies at home. Policies to encourage technological upgrading of local and multinational operations and to attract high-tech investments have been implemented. The approach of the Singapore government is very pragmatic. Rather than guide firms into the areas that the government deems best, firms are given the freedom to make decisions regarding the kinds of new technologies it would like to bring and develop. At the same time, the Singapore government concentrates its energies on providing the necessary infrastructure, including training and education through its manpower development programs. In fact, Singapore boasts of excellent facilities, an extremely attractive business environment, and a well-educated and motivated workforce. Moreover, its telecommunications services are excellent as Singapore serves as an important hub for the Asia-Pacific region. The results have been quite favorable; R&D expenditures in 1987/88 averaged 226 million Singapore dollars (about US$138 million), which is more than two times the corresponding 1984/85 values and over five times the 1981/82 figures (Table 4). About two-thirds of this R&D expenditure was in the cutting-edge electrical and electronic machinery sector.
Table 4 R&D Expenditure by Industry Group and Year

<table>
<thead>
<tr>
<th>Industry group</th>
<th>81/82 ($m)</th>
<th>%</th>
<th>84/85 ($m)</th>
<th>%</th>
<th>87/88 ($m)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>0.8</td>
<td>2</td>
<td>2.3</td>
<td>2</td>
<td>2.4</td>
<td>1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical/electronic</td>
<td>27.5</td>
<td>62</td>
<td>53.4</td>
<td>50</td>
<td>147.1</td>
<td>65</td>
</tr>
<tr>
<td>Chemicals/petrochemicals</td>
<td>2.1</td>
<td>5</td>
<td>5.7</td>
<td>5</td>
<td>11.9</td>
<td>5</td>
</tr>
<tr>
<td>Chemical-linked</td>
<td>3.8</td>
<td>8</td>
<td>17.6</td>
<td>16</td>
<td>19.6</td>
<td>9</td>
</tr>
<tr>
<td>Transport equipment</td>
<td>2.2</td>
<td>5</td>
<td>3.3</td>
<td>3</td>
<td>1.2</td>
<td>1</td>
</tr>
<tr>
<td>Basic/fabricated metals</td>
<td>1.8</td>
<td>4</td>
<td>9.3</td>
<td>9</td>
<td>2.0</td>
<td>1</td>
</tr>
<tr>
<td>Machinery/instrumentation equip. 1.1</td>
<td>3</td>
<td>0.7</td>
<td>1</td>
<td>5.0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>0.4</td>
<td>1</td>
<td>1.1</td>
<td>1</td>
<td>2.2</td>
<td>1</td>
</tr>
<tr>
<td>Construction</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>0.6</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Services</td>
<td>4.5</td>
<td>10</td>
<td>13.3</td>
<td>13</td>
<td>33.6</td>
<td>15</td>
</tr>
<tr>
<td>All industry groups</td>
<td>44.2</td>
<td>100</td>
<td>106.7</td>
<td>100</td>
<td>225.6</td>
<td>100</td>
</tr>
</tbody>
</table>

NOTE:
na = Not available.

Growth Triangles

Singapore has evolved from being a net capital importer to a net capital exporter, and has been investing quite heavily in other countries. To facilitate this process and to expand trade and investment links with its neighbors, Singapore was instrumental in cementing bilateral agreements with Malaysia (Johore) and Indonesia (Riau islands) to form a "growth triangle." This agreement has led to extensive infrastructural development, especially in the underdeveloped region of Riau, and has resulted in the emergence of a special economic zone par excellence. Multinational firms from third countries are encouraged to move within the
confines of the Growth Triangle, and to use it as an export platform to the rest of the world. A number of U.S., Japanese, and other firms have already accepted the offer.

**ASEAN Free-Trade Area?**

To date, ASEAN economic cooperation programs in the areas of trade and investment have not produced significant increases in intraregional economic interchange. However, as the ASEAN member states, especially Indonesia, have changed their commercial policies to be much more open to international trade and investment, economic integration has become far more plausible. The uncertainties in the international marketplace that were noted earlier, coupled with the increasingly diverse consumer markets developing from rapid economic growth in the region, are also contributing to the desire to move forward in knitting the ASEAN economies closer together. Following a meeting of the ASEAN Foreign Ministers, the ASEAN Economic Ministers put forth a proposal which includes a 15-year transition period in creating an ASEAN Free Trade Area (AFTA). If the ASEAN heads of government agree to AFTA, great opportunities for trade and investment will follow. Singapore, as the center trading and investment hub in the region, will be poised to play a key role in the creation of an integrated ASEAN trading area.

**Singapore, Hong Kong, and 1997**

In many ways, Singapore and Hong Kong, the two Asian city-states, have pursued common development strategies and
have been healthy competitors. Even though Hong Kong will not formally be part of mainland China until 1997, it has already been integrating its economy with the mainland and built up close links with Southern China, particularly the Guandong Province. Many in Hong Kong, including foreign investors, are confident that unification will not seriously hurt the economic prospects of Hong Kong. Nevertheless, the many uncertainties involved with the creation of a "one country, two-systems" China will persuade some multinationals to look elsewhere, and Singapore is a prime candidate for changes in regional and investment hubs. Taiwan, which is becoming an extremely important investor in Southeast Asia, has already shown its preference to use Singapore as a trade and investment center, particularly in conducting business with China.
SOURCES


Figure 1: Wong Pah Kam. 1991. Technology Strategy and R&D Policy in Singapore. Paper presented at the conference on The Emerging Technological Trajectory of the Pacific Rim, sponsored by Tufts University, Medford, Massachusetts, October 4–6.
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