

A Window of Opportunity Opens for Singapore and Hong Kong

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Introduction

This report is meant to provide the leaders of both Singapore and Hong Kong with a clear perspective of the current situation in southeast Asia which threatens the future economic development of the entire region. The key threat is the ubiquitous impact of information and other technologies, which are rapidly transforming the structural basis of society. Southeast Asian countries are the developing areas providing both low cost and an easily trained labor force, together with high family savings. Therefore, the region is critically important to the continuing growth of the global economy. It has been generally regarded as the primary growth region of the world in the 21st century.

A strategic window of opportunity is now open for Singapore and Hong Kong to achieve dominance in global trade and commerce through cooperative efforts. As regional service centers, their respective infrastructures, now being strengthened through information technology, allow excellent producer and consumer services to be delivered. Economic growth and profitability are maximized for multinational corporations (MNCs) and other enterprises operating within the Asia-Pacific region.

The Internet has opened direct channels for trade and commerce, and made products and services globally accessible. The deep connectivity, essential for the conduct of business in southeast Asia, is still a proprietary regime where west does not necessarily meet east, due to ethnic and traditional differences. If Singapore and Hong Kong should only participate in general linkage with IT communications, however, there will be no outstanding characteristics. Therefore, they should try to capture first mover advantages by jointly offering IT-enabled services at intermediary levels, which are those which involve human intervention between the consumer and the Internet.

Once this position is established, they can maintain the initiative to influence and even dictate the way business is conducted in the region, through the development of an efficient twin hub. The window of opportunity is presently open, but will become smaller and less significant as the Internet culture of the west gradually encroaches upon, and acquires the ethnic cultures of, the southeast Asian region. If the two cities do not take advantage of the present opportunity to establish in-depth cultural linkages, the strategic window may soon close.

This report outlines several possible alternatives for cooperation between Singapore and Hong Kong. Initially, an account is given of the rationale in favor of cooperation, along with a discussion of the potential obstacles. It sets the challenge facing the two virtual corporations, but it also provides the incentive and possible means to move forward.

With a solid plan already in progress for the past few years, new initiatives on cooperation are suggested. A concise account of the current effort in Singapore, aimed at building its capabilities and competitiveness, is given for reference. An analysis of Hong Kong's current position, as compared to Singapore, is then presented. The structural transformation of Hong Kong has been a response to the opening of China and the growing integration of the southeast Asian

economies. An understanding of the economic situation and strategic implications gives some insight as to why cooperation between the two regions would be mutually beneficial.

The new Information Age poses a unique opportunity for cooperation between Singapore and Hong Kong. However, it must take a broader view than in the past, and must be executive-led, in both the public and private sectors. A brief description of the current personnel exchange program and some examples of business forums are given. Finally, a number of additional recommendations for both the short and medium term are presented for consideration.

This report is intended to open the way for meaningful cooperation for the benefit of the entire region. Singapore and Hong Kong can be regarded in the trade and commerce context as two competing virtual global corporations, each possessing a strong sense of independence. The leaders of the two corporations should now take immediate steps to seek meaningful cooperation. In merging their strengths, flexibility and effectiveness, their ability to serve a wider range of customers seeking a broad range of individualized services will increase. It is a win-win situation with little reduction of their respective individualistic tendencies.

The independent entrepreneurial spirit of Hong Kong and the disciplined approach of Singapore, taken together, offer dynamism and solidity for the provision of the best services obtainable. The newly constructed integrated broadband networks are already being used to promote e-commerce, e-government, e-education, etc. The prospect of being the first to enter the Information Age in the provision of services is very promising.

Singapore and Hong Kong Working Together?

Advances in communication technology and developments in the global economy during the past three decades have made cooperation between Hong Kong and Singapore easier than ever before. If the two cities want to push ahead together to create a dynamic economic axis for the region and play a larger global role, there has never been a better time for it. There are local political and security factors which stand in the way of close relations and these are being addressed by the leaders and officials concerned. Some immediate matters of financial and industrial cooperation can also be dealt with through international institutions specifically established for that purpose. However, to ensure the will and the skills to create a deeper long-term relationship, there are social and cultural obstacles which need attention.

These obstacles derive from a complex past. Officials at the highest levels in Singapore and Hong Kong know the importance of closer relations. Conditions for cooperation between them had been present when both cities used their British and Chinese links to respond to new opportunities in the region. Those opportunities for expansion in trade and investment in the 1960s encouraged the leaders in both cities to keep in close touch, although the environment changed rapidly during the next two decades. Singapore became an independent country and its leaders concentrated on strategies that ensured its survival in the face of suspicious and hostile neighbors. Hong Kong endured the urge for revolutionary transformation in Maoist China. Despite these different experiences, the trade and investment strategies of the two cities paralleled each other as they became part of the forward defense line in Asia for the cause of global capitalism. But from that period down to the present, the working populations of the two cities grew apart, including the nation-building bureaucracy of Singapore markedly parting from the decolonizing civil service of Hong Kong.

Today, twenty years after the opening up of mainland China and two years after both Hong Kong's return to China and a sharp "Asian financial crisis," different kinds of opportunities await the two cities. Singapore continues to learn from Hong Kong about dealing with China. Its public and private companies still send some of their experts to Hong Kong before venturing further into China. Although others have gone to the mainland directly, the Hong Kong base remains a most important bridge.

The two cities acknowledge that they have much in common – the common law, a relatively incorrupt and efficient civil service, a great location and two of the best container ports in the world. But underlying differences have prevented the two cities from working more closely together. This is all the more troubling when the latest developments in science and technology, well understood in both cities and waiting to be translated into vital enterprises, know no boundaries. They remind us that the barrier to a higher level of cooperation that could make the two cities an alternative centre of world business is the social and cultural gap that has grown through decades of neglect.

Differences exist in the values and attitudes between Singapore's and Hong Kong's elite, i.e., those who should be in the best position to bring about cooperation. They have both inherited

much from the British, but independent multi-racial Singapore clearly moved away from a Hong Kong destined to return to China. Singapore's desire to maintain a stable mix of ethnic groups and Hong Kong investments in Southeast Asia did motivate their elite to consult each other, but other priorities intervened incessantly. Thus, gaps in policy and practice understandably increased over the decades. These now make a quick move to close cooperation between the cities difficult. If their responsible elite wish to build strong foundations for future generations to cooperate better, they would need to identify the gaps and prepare to have them narrowed as soon as they can.

For Singapore

Singapore needs to enhance the quality of modern values that are rooted in tradition but continue to inspire its Chinese majority to perform well in the region. It therefore turned to mainland China and did not ask Hong Kong for help, because Hong Kong culture was seen as peripheral to the Chinese core and consisted of an exceptional mix of east and west that is not sensitive to the multi-communal conditions of Singapore. Today, Singapore is surer of its national identity. It can pick and choose the Hong Kong qualities that its people will find useful in the world of entrepreneurs. It is also more discerning about what the mainland can offer and what Hong Kong is itself learning from China. Therefore, broad areas of Hong Kong's culture can be more accurately assessed, and their relevance to Singapore determined.

Singapore has been accepting students from the mainland. It has been less successful in persuading Hong Kong students to come, and also in sending Singapore students to go to Hong Kong to finish their studies there. The lack of students to and from Hong Kong for the past thirty years illustrates only a small part of the growing cultural gap, but it is a serious one that will take years to remedy. But a start should now be made if the quality of future cooperation is to be improved.

A concerted effort is needed to remedy this at several levels:

- Select a number of young administrative officers to work in Hong Kong, especially those who are already bilingual in English and Chinese.
- More executives, especially junior executives, from public corporations and GLCs should be encouraged to spend a part of their careers in more or less comparable institutions in Hong Kong.
- Introduce courses on Singapore/Hong Kong relations, notably executive short courses, but also special courses at universities and polytechnics. For purposes of comparison, there should also be courses on comparable cities like London & New York; Hong Kong & Shanghai; Hong Kong & Taipei.
- Exchanges and other close links between educational institutions: for example, local staff to collaborate in teaching, research, and service duties, especially those in fields like education, arts and social sciences, but also in business, engineering and law. Similar exchanges for a selected number of undergraduates and trainee teachers should also be arranged. Ideally, secondary and primary school teachers should do some training in Hong Kong schools on an exchange basis.

- A broad range of cultural exchanges should be systematically encouraged, for example, in the performing arts and visual arts. There should be active and competitive participation, highlighting differences as well as similarities.

For Hong Kong

Hong Kong was more actively and consciously linked with southeast Asia thirty years ago than it is today. This diminution has not been felt among Hong Kongers because southeast Asian entrepreneurs have, at least since the early 1980s, turned to Hong Kong for better access to mainland China. Now that China has learnt much of what it wanted from Hong Kong and has the capacity to develop its own great port cities further north, Hong Kong's failure to be more active towards its southern region in the South China Sea actually reduces its value to China. Although Singapore can provide China with most of its maritime connections, the two cities could be doubly effective if they were to work together. When the region recovers from the crisis of 1997, a new era of technological advance would have dawned. If the opportunities offered are taken up in concert by the two cities, they would be much easier to control and expand.

Both Hong Kong and Singapore have rarely seen each other as partners. Where they are not directly competitive, their leaders would stress that they can be complementary in their enterprises. Conditions for close cooperation have never been more favorable. But, because of years of neglect by both cities, it is difficult for the new opportunities to be pursued together.

Singapore may appear less obviously useful to Hong Kong than Hong Kong is to Singapore, but most of what Singapore needs to do (as listed above) applies to Hong Kong as well. The following should receive much more attention in Hong Kong:

- young administrative officers to work in Singapore
- introduce various levels of courses on Singapore/Hong Kong relations
- exchanges between educational institutions, especially staff collaboration in teaching, research, and service duties
- exchanges for undergraduates and trainee teachers are particularly important because ignorance about southeast Asia in Hong Kong is profound
- cultural exchanges in the performing and visual arts should be especially valuable, if only to reduce the insensitivity of most Hong Kong people towards indigenous people of the region

The Cities Together

Singapore has affirmed it needs better access to the best values that can be practical there. Hong Kong's mix of modern and traditional Chinese culture would be easier for young Singaporeans to comprehend. Also, Singapore's multi-racial environment provides a useful halfway house for Hong Kong entrepreneurs to reach out for the southeast Asian region and beyond. Together, the cities have gained much wealth from the valuable connections they can make with millions of

southeast Asians of Chinese descent. This has enabled them to play a critical role in the development of the region as a whole. At the least, by opening up to each other, the cities can minimize the defensive outlooks still widely found in their societies. In the case of Hong Kong, such outlooks derive from a sense of insecurity in the face of China as master. In the case of Singapore, they heighten the vigilance of people who fear isolation. This defensiveness, however justified, has led to parochialism among all except the far seeing few. Working together would raise confidence and, in time, help to ameliorate this phenomenon.

Both cities have projected different images of Chinese or east Asian styles of doing business. That these styles are rooted in similar cultural roots can be demonstrated. The successful working together of the two cities will show that the styles are flexible and efficient. Their grasp of each other's forms of cooperation and competition will provide a challenge, as well as a viable alternative, to the current dominant western ways.

Hong Kong and Singapore can do something together which each by itself will find hard to do. In conjunction, they could help to make a powerful China more acceptable in southeast Asian eyes. By brokering more economic and industrial ties between mainland China and the region, they would assist the internationalizing of mainland Chinese entrepreneurs. This would, it turn, soften the image of the "China threat" that has undermined the prospect of balanced and peaceful growth for the coming decades. As prosperous but small entities with special connections with China, their own wide-ranging cooperation would set the parameters of future regional development.

The New Initiatives of Singapore

Human Resources

It has to be emphasized that for Singapore to develop into an advanced economy, the key factor is to have a world-class workforce. For a knowledge-based economy, the human and intellectual capital gives the competitive edge. The workforce should be productive, motivated and highly knowledgeable. World-class capabilities in business management, technology, innovation, and market development are needed.

Singapore's strategies toward human and intellectual capital development are comprehensive at all levels of the workforce. At the domestic workforce level, workers are well trained in the basic skills through the Institute of Technical Education or on-the-job training provided by their companies. A national effort in lifelong learning CET (continuing education and training) will be put in place to maximize the long-term potential of the workers and to minimize structural unemployment. Another key focus to instill a greater sense of pride, professionalism, and commitment in its work force is through the quality control circle movement, which is active in all major companies.

At the tertiary education level, 40% of the age group are placed in the polytechnics, where they learn technical and business skills. Another 20% of the age group attend universities, where about 50% of the students are in science, engineering, or business management. In spite of the larger output of graduates, Singapore is very liberal in its immigration policy in admitting foreign professionals into its workforce. Further liberalization will be announced in the near future for foreign technopreneurs.

Other than development of manpower for general purposes, special attention has been paid to R&D manpower. This is a vital factor for a knowledge-based economy which is supported by world class capabilities. This subject is discussed in detail in a later section on Technology Plan.

Manufacturing Sector

Manufacturing will remain an integral part of the Singapore economy. Its capabilities range from production to the entire value chain beyond manufacturing such as design, marketing, and sales. It will position itself as a hub which MNCs and local companies can use as a base to manufacture high value-added products and provide manufacturing logistics to companies in Singapore and in the region.

To assist investments in manufacturing, there are a number of attractive investment schemes operated by the Economic Development Board. In addition, clusters are identified to indicate areas which have synergies, thereby benefiting companies operating in Singapore.

Singapore has good manufacturing infrastructure provided by the Jurong Town Corporation. Transportation by air or sea is excellent. The port of Singapore has the greatest number of connections to other ports in the world and has been shown to be most efficient. Since all the major banks in the world are present, financing for manufacturing is straightforward.

Service Sector

Complementing the manufacturing sector, Singapore has the aspiration to be a premier service hub with a global orientation. It already has an international reputation in financial services, trading, transport and logistics, exhibition management, and tourism. It intends to develop new growth areas in health care, education, media, communications and IT services, e-commerce, and marketing.

Other than provisions of investment incentives and proper legal framework, the most important factor in giving a competitive edge to providing services is a world-class infrastructure in IT. It is important as a business emblem for more efficient access, processing, and use of information.

Singapore has the reputation of a 'data port.' It has an all-digital fiber optic backbone network – ISDN and ADSL services are available island-wide. By the end of 1999, all homes in Singapore will be connected by cable, thereby making available to the homes the most sophisticated IT services. The Singapore One Network for Everyone (popularly known as Singapore One) also provides a broad bandwidth channel for communications and media services of the future. It could jumpstart the local multimedia and broadband industries. All these facilities make Singapore the most wired nation in the world. In fact, International Data Corp projects: "Singapore will be the world's second most dominant information economy by the year 2002 right behind the United States."

The telecommunications infrastructure facilities include three earth stations with full uplink and downlink capabilities, and three additional independent uplink/downlink service providers. Singapore is also committed to enhancing its Internet connectivity to the region and upgrading links when necessary.

Singapore has embraced IT since the early 1980s. Today, PC penetration is over 30% with Internet penetration at 15%, one of the highest in Asia. There are currently 500,000 Internet users, and the number is expected to double by the year 2000. Singapore's \$2 billion IT investment in Education Masterplan will ensure that schools will enjoy a student/computer ratio of 2:1 by 2002. This will develop a workforce proficient in IT and capable of serving the needs of the digital economy.

Leveraging on Science & Technology (Technology Plan)

A key capability of a nation is the ability to leverage on science, technology, and innovation effectively as competitive tools. Development of these capabilities will enable Singapore to upgrade its existing industry and business and move towards higher innovation and technology content. They are ingredients of a knowledge-based economy.

Singapore has limited resources and has to compete on the basis of capabilities rather than costs. This implies the need to move up the technological ladder to strengthen its business position. It needs to derive more value from the commercialization of R&D results.

To date, there have been three key strategies:

1991

The five-year National Technology Plan (NTP) mainly to develop technology infrastructure encourages private sector R&D and formulates a manpower development plan.

1995

Innovation programs mainly to launch a national innovation framework.

1996

The National Science and Technology Plan (NSTP2000) to build upon the 1991 NTP foundation.

The 1991 NTP has seen some success in developing an R&D culture in Singapore. In 1995 itself, a total of \$1.37 billion was spent on R&D, of which 64.5% was from the private sector. The fact that the private sectors participated in a significant way to R&D gives optimism to commercialization of R&D efforts. Of the total expenditure on R&D, 59.1% was on engineering, followed by 15.9% on computer and related sciences. These figures indicate that the R&D effort was most likely to be spent to support manufacturing.

In 1995, the total research manpower was 8340, of which 1887 had PhD qualifications. As compared to the research manpower of 5218 in 1991, the growth was an impressive 60%.

The concrete achievements of NTP1991 were:

- strategic development and funding of 13 national Research Institutes and Centres in various technological areas to form a technology infrastructure to support industry
- co-invest in 62 corporate R&D centres through industry R&D grants
- development of R&D manpower

The NSTP2000 mapped out Singapore's technology strategy for the next 5 to 15 years. It consists of a three-tier development. The first tier is on the innovation of near-term technologies. It is expected that innovative improvements would be made to the present generation of products and services as well as to develop the next generation of products and services. Some 70% of the Government's total resources of \$4 billion for science and technology will be directed to this tier.

Singapore intends to prepare its long term technological capabilities by engaging in medium and long term research. It is hoped that a continuous stream of innovative technologies will be

generated. In-depth research in strategic areas is vital to the medium and long term viability of its industries. These R&D efforts would be carried out in the national research institutes/centers and the universities.

Singapore's small population requires a two-pronged approach for R&D manpower development. Measures to boost the local pool of researchers include programs to encourage postgraduate research in relevant areas and raising the profile and career prospects of researchers. To supplement the local supply of manpower, measures are needed to attract foreign R&D manpower into Singapore. Programs include provision of housing for foreign researchers and scholarships to attract foreign students to undertake postgraduate studies locally with a view of taking up R&D careers there. For the long term, efforts to interest local students to decide upon a career in R&D must start in the secondary schools and such programs have been mounted by the universities.

Singapore will also need to draw upon the strengths of other countries and place emphasis on international R&D collaboration. One way to achieve this would be the establishment of overseas R&D programs to augment Singapore's limited resource and talent base. This could take the form of collaborations with overseas research centers on setting up overseas research centers with Singaporean funds.

Due to the beneficial effects of R&D not only for the companies but also for the economy, attractive packages of fiscal and financial incentives will be provided by the government. R&D grants will be given for both short-term technologies and strategic projects. Support will also be given for technology acquisition, since companies would be upgraded technologically.

There is also a need to increase the level of technology innovation and commercialization. Government agencies such as the Economic Development Board will be involved in assisting SMEs and the larger companies to apply and commercialize technology. The strategies provided an overall framework for both the government and the private sector to work together to use superior technological capabilities for economic benefit.

Technopreneurship & Technology Start-Up Companies

Singapore needs to nurture and grow more indigenous high-tech enterprises to contribute to the future economy. A strong and vibrant technopreneurship sector can complement the existing capital-intensive manufacturing and service economy.

For technopreneurship activities to thrive, the environment must be conducive and supportive of such activities. Rules and regulations have to meet the following objectives:

- greater tolerance for failure
- equity ownership and risk sharing
- easy and low cost business starts
- risk acceptance and management for government procurement
- welcoming foreign technopreneurial talent

A high level committee headed by a Deputy Prime Minister has been set up to implement the changes. For example, the bankruptcy procedures and laws would be revised to manage business failures without social stigma. Capital losses by investors on start-ups could be tax deductible. Similarly, tax liability on Employee Share Options could be deferred. Affordable incubator units would be made available for start-ups.

The most important measure of all is the establishment of a US\$1 billion Technopreneurship Investment Fund (TIF). The TIF is intended to draw a whole range of venture capital activities into Singapore. The scheme is not merely meant to attract funds to be based here, as the venture capital (VC) is already quite active in Singapore, since the establishment of the first local venture fund in 1983. From a mere \$48 million in 1983, the industry today has cumulatively raised about \$7.7 billion of funds under management. Approximately 80% of these funds are managed by professional VC fund management companies. There are currently more than 60 VC firms, employing around 280 investment professionals, which use Singapore as their regional base. Industry feedback indicates many VC firms choose Singapore as their operating headquarters or manage funds out of Singapore because of its strategic location, political stability, specialized manpower, excellent infrastructure, and banking facilities. There are attractive tax and financial incentives to promote fund management activities in Singapore.

The Business Angel Program, which was started in 1997, has many investors with expertise in technology and corporate management. An association has been formed to facilitate and to educate both the potential angel, as well as the budding entrepreneur, on investment opportunities.

The experiences of the start-up companies on their exit paths have been either through listing on the Singapore or New York stock exchanges or acquisition by larger companies. The procedures were usually straightforward because of the existence of a proper legal framework and the presence of major international banks.

Analysis of Hong Kong's Current Position As Compared to Singapore

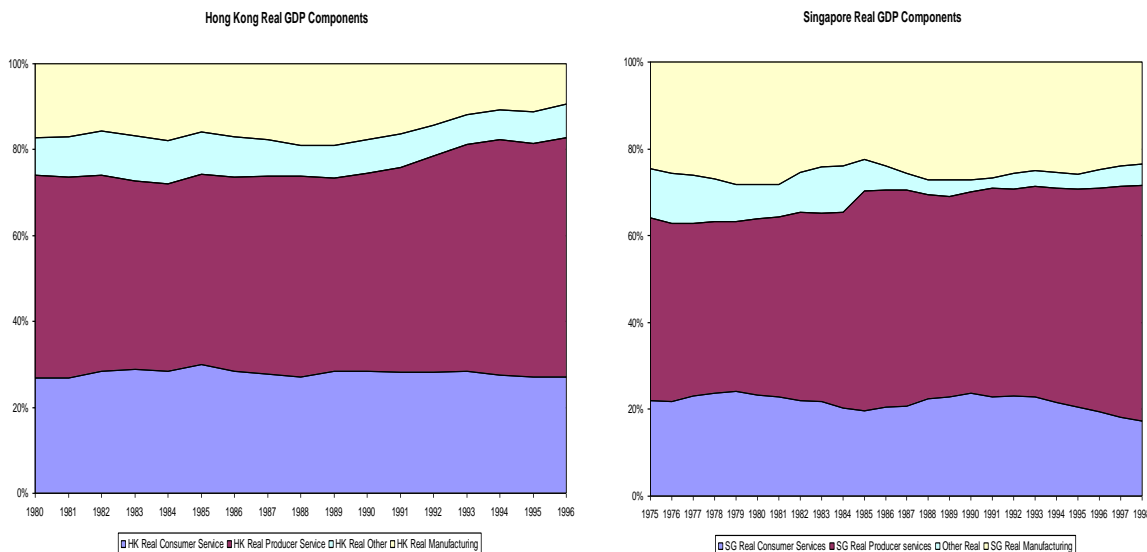
The long term strategic economic situation which both governments are facing as a result of past developments, and in light of the current Asian crisis, are first reviewed. Next, consideration is given to the nature of economic cooperation which is feasible and in the interest of both governments.

Economic Situation: Differences and Similarities

Both Hong Kong and Singapore have experienced rapid economic growth measured in real gross domestic product per capita. They have both traversed somewhat similar growth paths. Both started as major entrepots in the Far East, became significant exporters of labor intensive manufactured products, have increasingly dominant service sectors, including finance, telecommunication and transportation, and are prepared to develop other innovative high value added economic activities. In the past decade, Singapore's growth rate has risen slightly faster than Hong Kong's rate (see Figure 1). This probably reflects Hong Kong's much more rapid economic transformation towards a service economy.

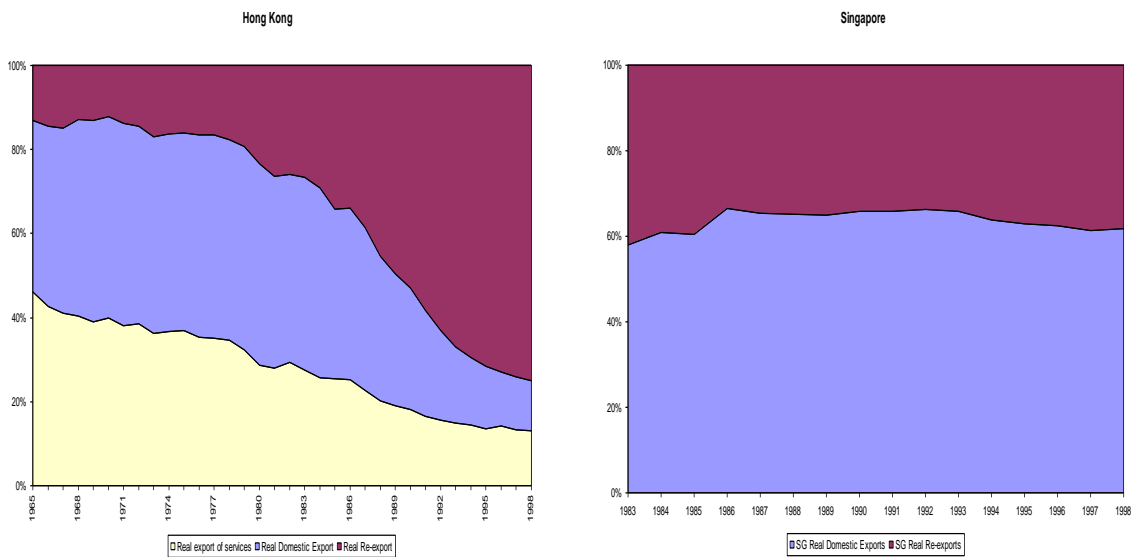
[Figure 1 about here]

Figures 2a and 2b show that in the past decade Hong Kong's service sector had expanded from 73% to 83% of GDP from 1986 to 1996. The corresponding figures for Singapore is from 70% to 71%. From Figures 2a and 2b we can see that the Hong Kong's service sector growth is due almost entirely to the expansion of producer services rather than consumer services. Hong Kong's producer services sector had expanded from 45% to 56% of GDP from 1986 to 1996. The corresponding figures for Singapore is from 50% to 52%.

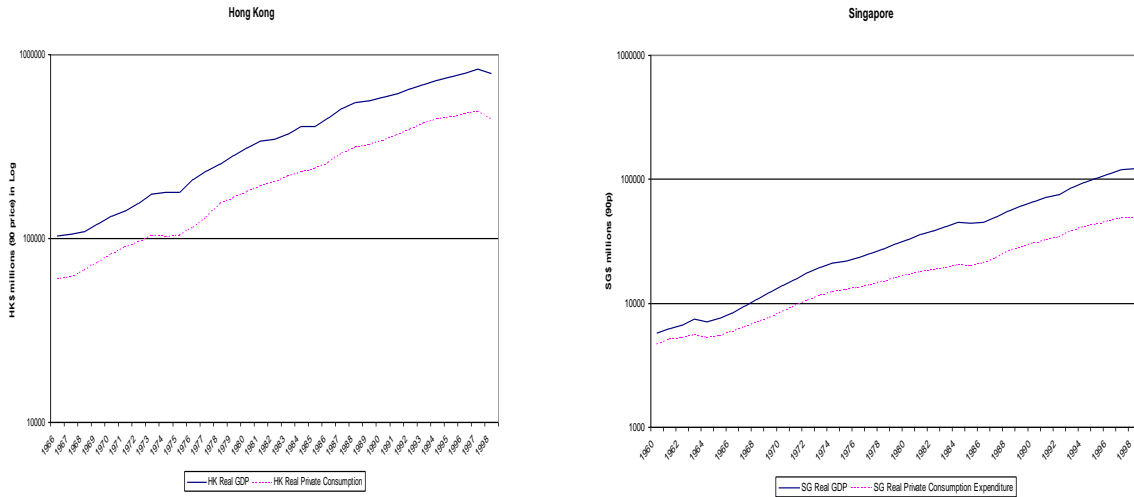


Producer services are all those services that are not used directly by final consumers. They are intermediate inputs purchased by businesses to help produce other goods or services. It is not useful to think of producer services as any particular type of service, like financial services or business services. In fact, almost all goods and services are partly used by final consumers and partly used by other businesses as intermediate inputs. For example, hotel services are regarded as final consumption when consumed by a tourist, but as an intermediate input when consumed as part of a business trip. The distinction is therefore determined on the demand side and not the supply side.

The rapid growth of producer services in Hong Kong in the past decade reflects the growing integration of Hong Kong's economy with the rest of the region and especially the Chinese hinterland. These producer services support primarily the manufacturing production base that has migrated offshore. The process has taken place to a much greater extent in Hong Kong than Singapore. The change is also reflected in the different structure of exports in the two economies. The proportion of re-exports in total exports had risen from X% to X% from 1986 to 1996 in Hong Kong. The change is much less pronounced in Singapore, where re-exports had only grown from X% to X% over the same period.



Manufactured value added has continued to maintain its relative contribution to GDP in Singapore as a consequence of a number of factors. First, Singapore's manufacturing base has not relocated offshore by as great an extent as Hong Kong has. Second, the government of Singapore has more consciously sought to upgrade its manufacturing sector through policy to create high value added manufacturing activities within Singapore. Singapore's experience in this area is controversial in some quarters, but it has helped Singapore to maintain a higher rate of GDP growth than Hong Kong in recent years. It may even help Singapore to recover from the current economic crisis more speedily as well. Strangely the findings for the growth in real private consumption expenditure for the two cities are puzzling because they are exactly reversed when compared with the GDP results (see figures 3a and 3b below).



Hong Kong by allowing market forces to drive its economy is assuming characteristics similar to that of other metropolitan economies like New York. Both Hong Kong and New York have a preponderance of producer services. The growing importance of producer services in Hong Kong and New York City reflects an economic process at work that is crowding out lower value added activities, such as the physical production stages of manufacturing, to the hinterland. Over time, manufacturing gradually plays a less important role in the city's GDP and employment, even though it continues to function as the management and coordination center for a manufacturing base that has been decentralized to other places (see Table 1 below).

TABLE 1 : PERCENTAGE CONTRIBUTION TO GDP IN 1993				
	All Services	Consumption Services	Producer Services	Government Services
Hong Kong	78.1	28.7	42.8	6.6
New York City	77.8	26.1	40.8	10.8

As a metropolitan economy, Hong Kong is subject to the same economic dynamics faced by other cities like New York, London and Tokyo. It is economically less vulnerable to the rise and demise of any specific economic sector, but is sensitive to a general economic contraction such as the current situation in East Asia. For this reason the economic downturn in Hong Kong at this time is particularly severe and is unlikely to rebound until the rest of East Asia starts moving again. Hong Kong is therefore less likely to repeat its previous records of rapid recovery this time. Singapore's somewhat greater presence of export oriented manufactured products may therefore improve its recovery speed when compared with Hong Kong. The situation in Hong Kong is of course not helped by the exchange rate situation in both Hong Kong and the Chinese Mainland.

On the Nature of Cooperation

The effects of the Asian crisis have prompted both the governments of Hong Kong and Singapore to re-examine their policies and to plan strategically for the future. It is therefore useful to take stock of the future economic challenges both are facing and to see how they are similar and different.

Hong Kong and Singapore obviously compete with each other in many economic spheres, but they do not compete politically and strategically. The latter factor alone simplifies and expands enormously the room for cooperation. Furthermore, competition and cooperation do not imply mutually exclusive or incompatible agendas. Competition can often perform the very useful function of helping governments, industries and firms to innovate and remain efficient. Competition is essentially not a zero-sum game or an adversarial rank-order tournament where the winner takes all. To see competition primarily in this manner is far too limiting as a vision for pursuing sustained economic prosperity.

Nevertheless competition among cities is not the same as competition among firms. While both has to compete by exploiting and enhancing their comparative advantages, the policy objectives of cities are far more complex than that of the firm. The task of the city is less well defined than that of a firm. On the other hand, cities also have at their disposal policy instruments to determine institutional arrangements and to shape their evolution in ways that are not available to firms.

Many great economic cities have been left behind in the march of history, others like London and New York have continued to thrive. Both Hong Kong and Singapore would certainly wish to join the ranks of the successful examples. Sharing experience and information cannot lead to the demise of either; it will only help each other to grow. There are indeed many areas where there is much to learn from each other.

1. As city economies both share unique problems and challenges in securing the economic future. Both have long reached the limits of their economic size and seek to serve economies beyond their borders. Putting in place the requisite policies and institutions is an enormously challenging task, especially in the face of global competition. Learning is an activity with very large economies of scale. It is therefore imperative for both Hong Kong and Singapore to learn from the successes and failures of each other's experience, to reduce the cost of policy and institutional innovations, and to avoid the wasteful exercise of reinventing the wheel. There are numerous hidden lessons in concrete and specific areas that have yet to be learned. Such learning can be greatly facilitated if there are regular arrangements for meetings at the ministerial-secretary level and at the level of those responsible for operations and implementation.
2. Hong Kong's increasing reliance on services has prompted fears of industrial hollowing out. The fear has exacerbated in the wake of the Asian crisis. There is a renewed interest in promoting innovation and technology initiatives. While these are not limited to the manufacturing sector by any means, there may be a growing interest in Singapore's

experience and initiatives in these areas, particularly the rationale for maintaining a policy to support the manufacturing sector.

3. The growing economic dominance of services in both economies requires an active government role to review extensively and intensively general and specific policy and regulatory regimes in numerous service sectors. There is much that both governments can learn from each other. In many respects the policy and regulatory frameworks are close cousins of each other with common British legacies making the legal and institutional arrangements similar in many ways. Both city economies are facing the pressures of global competition and have to respond. Hong Kong's future as a metropolitan economy depends to a great extent on the efficiency of its producer services and its ability to export traded services. Singapore too aspires to becoming a leading metropolis. There is much that they can both share with each other.
4. Both cities rely heavily on its human resources to support their economic future. Human resource talent is important at all levels. Given that both cities have obvious if not immutable limits on the parameters governing population growth. Improving and augmenting the human resource talent pool has an important bearing on the economic future of both cities. In this area there is much room for cooperation so that the reservoir of talent in both societies can be more effectively harnessed for mutual benefit.

Developing a Leading IT-Based Service Industry for Singapore and Hong Kong

Tracing the development of the human race, language singularly has been the most influential driving force. The Scribes, with their ability to record in writing and to read the script, held a dominant position in society. After the invention of the printer, printed matters became readily available to most people. Communication between the literate increased the rate of progress of civilization. The printed materials, in book and newspaper form, exerted great influence on the transformation of society. The ability to access and to use exclusive printed records gave the States and large organizations the means to control the public. By controlling broadcasting, television, and telecommunication facilities, the State becomes even more powerful. However, as the channels for the distribution of information and knowledge spread into private hands, the power of the people increases.

The advent of the new information technology has enabled anyone to access information anytime, anywhere, and at affordable costs. The new term, "Information Age," is coined to describe the present age, in which information and knowledge have become a form of capital asset, in the same manner that physical resources are a capital asset. The equal opportunity to access information at an affordable cost is changing the fundamentals of life, and is the beginning of a new epoch in which the individual may be as powerful as the State.

Information technology ushered in the information revolution. The transmission capability of optical fiber delimits the bandwidth available for wired transmission. The semiconductor integrated circuits enable massive data to be stored and processed at low cost and at very high speeds. Wireless techniques make anywhere access of information possible. Transportation, storage, process, and access costs are all lowered to the extent that the access of information and knowledge is affordable by all.

All of us are, as the scribes of yore, empowered when pertinent information and knowledge enable us to perform our tasks more easily and more effectively. The social and political structures, the institutions and economic pillars, the proud and the meek, all are being impacted. However, such monumental changes are not likely to occur overnight. The transition will be an evolutionary one.

Opportunities for Singapore and Hong Kong

Hong Kong shall be used as an example to illustrate the potential and actual impact of the use of information technology on the society's roles and functions. Emphasis shall be placed upon the social paradigm shifts that are in the making. The changes are necessarily evolutionary and hence relatively slow. The social and ethical issues can be seen to be extremely profound.

Hong Kong is a trade and commerce hub in southeast Asia, with an aspiration to become a world city of significant importance. The reach of its services has become more robust, faster, and increasing in variety and effectiveness.

However, on a global basis, the development of IT is not uniform. Within the next few decades a heterogeneous operational environment will persist. Such a scenario favors city-state-like regions such as Singapore and Hong Kong. With a more complete and compact infrastructure supporting the operations of trade and commerce within the region, the services could be delivered with speed and cost advantages, relative to other regions. This is especially so if they can imitate the commercial entities who work synergistically in partnership with one another. Singapore and Hong Kong are in that privileged position. Both are compact enough to build their own self-contained state-of-the-art information infrastructure. Should the two regional service centers cooperate and compete at the same time, they would be the formidable duo dominating the entire southeast Asian region in providing friendly services to their global customers. An exciting thought indeed.

On its own, Hong Kong can reap the benefit of having a well-designed and implemented information infrastructure. Already the programs scheduled for operation between now and 2001 include: the Government services delivered through ESD, the information services from SchoolTeam, ELT for the masses, ChineseBooks, and a host of others services that will be delivered by the SMEs. Together with the upgrading of the existing excellent telecommunications services, trade and commerce will be conducted at a lower operational cost, will create a practice ground for introducing new services, and will groom the next generation of people, trained and ready, as global service operands.

The deregulated environment will be explored by many as the means to build new services, to establish a new economic basis that is more compatible with the requirement of making the world greener, and to guide the world towards a healthy economic growth within the limits imposed by global sustainability. Life in Hong Kong will change, as kindergarten and primary school kids are already demonstrating by how they adapt to the use of the computer and the Internet. Of course, this is just the beginning. Social changes are slow. People are reluctant to shift their behavior, change moral attitudes, political correctness, and inter-human relationships. A consensus of the participants cannot be reached quickly. The impact of information technology is ubiquitous. It is an epoch change in the making. It is deeper and more profound than the invention of the press.

How can we foster the IT businesses to succeed effectively and rapidly? The setting up of a second stock market board is in progress in Hong Kong. With the experienced guiding hands, the second board, now named Growth Enterprise Market (GEM), could be the most important piece of the jigsaw that completes the infrastructure for promoting new businesses. The characteristics and business models of IT business are new. There is plenty of scope for innovative approaches. By placing the responsibility of fair play in the market place, the investors are safe. The principle of *caveat emptor*, buyer beware, is a tried and true free market tool. GEM could attract regional businesses and global investors if the system is transparent and operates with few constraints. A strong tie with Singapore could be particularly useful. The bourses of Hong Kong and Singapore are probably the most important ones in the region. The characteristics are different, with the

ones in Singapore considered to be safer, due to their stricter regulations. Cross listing and open listing in the GEM Board for all comers could create an exciting investment climate with a healthy twist in marketing appeals. The open operation of GEM could be the best move for Singapore and Hong Kong, and for the southeast Asian region as a whole.

Singapore/Hong Kong Cooperation: A Proposed Coupled-Hubs Strategy

The global economy is increasingly driven by innovations in information and communications technology (ICT), which is considered to be a subset of IT. In order to be competitive regional hubs in the global economy, both Singapore and Hong Kong need to establish strong positions in all the four key sectors of information economy (see Figure 1).

Despite the leading positions achieved by Singapore and Hong Kong in Asia, there are considerable competitive threats from neighboring economies. In northeast Asia, Beijing is emerging as a strong R&D base and software industry cluster, with significant investments by the likes of Intel and Microsoft. Taiwan has been traditionally very strong as an original equipment manufacturing (OEM) and original design manufacturing (ODM) base for ICT manufacturing, but recently is making rapid progress in original brand manufacturing (OBM) as well as software industry development. The Taiwanese government has also announced its intention to become the regional operational center in north Asia. Both Japan and Korea, which have already been very strong in key ICT sectors, are promoting technological innovations in small and medium enterprises after the financial crisis. In southeast Asia, Malaysia has ambitions to make its Multi-Media Super Corridor a leading hub in ICT innovation in Asia.

We believe that rigorous competition between Singapore and Hong Kong, and other countries is healthy. However, competition should not preclude cooperation. Indeed, because of their unique regional hub roles, we believe that both Singapore and Hong Kong can further strengthen their individual competitive positions as gateway hubs in Asia by establishing special “twinning” relationships. By being “coupled hubs,” Hong Kong and Singapore can further elevate their own regional hub positions.

Possible Forms of Singapore/Hong Kong Cooperation in ICT

Possible components of such a coupling of hubs include the following:

- establishment of *direct broadband communications network links* between the two economies, so that they can serve as the gateway hubs for Internet traffic going from one region to another
- establishment of *e-commerce links* between the two economies, so as to stimulate e-commerce developments in both, so that they will serve as the preferred gateway hubs for e-commerce between their respective regions and the rest of the world. This will entail mutual recognition of each other’s digital signatures, mutual acceptance of the equivalent of the Better Business Bureau certifications in the two economies, and the establishment of open-standards for procurement over the internet.
- establishment of *strategic alliance network links between the high-tech venture capital and business angel communities* of the two economies, so that they can more effectively tap and nurture the new high-tech start-ups from countries in both regions to grow. By forming strategic alliances across Singapore/Hong Kong and also with the Silicon Valley,

VCS and consulting firms from the two economies will be better able to provide contacts and access for new start-ups to develop and execute a pan-Asian growth strategy, which is becoming essential for many high-tech businesses to succeed.

- establishment of *strategic alliance network links between the leading universities* of the two economies, so that they can complement each other's regional specialization and insider's knowledge to achieve pan-Asian research capabilities
- facilitation of *cross-listings of stock exchanges for high-tech ventures* from the two regions, so as to strengthen the two economies' regional hub roles for high-tech ventures; over time, this could evolve into a *pan-Asian NASDAQ for high-tech stocks*

One of the paradoxes of globalization is that there will likely be more, not less, geographic clustering of knowledge-intensive activities, due to the tacit nature of much knowledge and the existence of significant agglomeration economies for knowledge production. Recall that even though advances in shipping technology led to the emergence of a network of port cities around the world, only a few played major hub roles (e.g., Venice). Similarly, we expect the arrival of high-speed information networks and the Internet to enable the spread of economic activities to many new regions, but only a few are likely to play central knowledge production and coordination roles. Already, the information revolution, coupled with market liberalization associated with the shift towards a European Union, has resulted in a significant consolidation of financial centers in Europe; what remains will be a number of super financial centers (London, Frankfurt) in strategic alliance with one another, relegating the rest to become affiliates of these two. Despite a slower pace of economic liberalization, we expect a similar trend of consolidation to occur in Asia. By forming strategic alliances such as the above, Singapore and Hong Kong will stand a better chance of surviving to remain in the super league.

Figure 1 – Conceptual Framework of Information Economy

A Broader View of Cooperation

The growth of the IT industry which we expect from the proposed cooperation between Singapore and Hong Kong could be the first phase of a larger cooperation which could eventually extend across a wide range of business and financial functions. Globalization and low-cost communications have reduced the relevance of national boundaries for business, except insofar as they define professional, regulatory, and legal jurisdictions. The same forces have facilitated the agglomeration of business functions into a few "global cities" not only through economies of scale and scope, but also through the cumulative advantages of operating within a dense network of personal and business relationships which permits quick detection and exploitation of new business opportunities. Singapore and Hong Kong are the leading examples of the resulting opportunities for a "virtual state," insignificant in physical, military, and political terms, but a nexus for information processing and business functions which are global in scope.

Like Venice and Amsterdam, Singapore and Hong Kong emerged as trading states by offering a business-friendly environment around a harbor which straddled key communication routes and provided a portal into an economically-vibrant hinterland. Hong Kong's economic hinterland in China and Singapore's hinterland in southeast Asia, in fact, form a macro-region unified by history, culture, and trade and investment flows. The constraints of geography prevented economic unification of these trading states. However, both cities have further evolved as the headquarters of "virtual corporations" which control the knowledge-intensive functions of manufacturing and trading activities located throughout their economic hinterlands. Technological developments now make it possible to transcend geographical constraints and integrate the financial/business systems of Singapore and Hong Kong into a unified "virtual state" which would become the third global financial/business center, complementing London and New York. Such a broad integration is a realistic prospect, given the depth and breadth of existing personal and business ties, mutual familiarity and respect, and the common heritage of Anglo-Saxon institutions and Chinese culture and business styles.

Benefits

A. Global Rebranding of Hong Kong and Singapore

The financial crisis has tarnished Asia's image and drastically reduced the inflow of investment. An alliance between the two jurisdictions whose institutions emerged unscathed from the crisis would assert their leadership of a constructive regional response. The enhanced international profile and geopolitical weight of the alliance would strengthen its voice in global forums, such as those on international trade and banking reform.

B. Joint Market Domination in East Asia

Many Asian cities are competing to attract the regional headquarters of international businesses. Singapore and Hong Kong have an edge because of their openness, transparency, and high-quality infrastructure, but their competition prevents each from accumulating a critical mass of regional headquarters sufficient to dominate future locational decisions in the

region. By unifying their financial/business systems so that location in either jurisdiction brings the locational advantages of both, Singapore and Hong Kong would build an overwhelming advantage and achieve joint dominance as the financial/business center of east Asia.

C. Intimidation of Currency/Financial Manipulators

Jointly, Singapore and Hong Kong would have the world's second largest foreign exchange reserves, making it manifestly foolhardy to attempt to manipulate their currencies and financial markets. They could deter currency/financial manipulators much more effectively as an alliance, for example, by a joint declaration that any collusion/manipulation directed at either jurisdiction which would have violated the laws and regulations of, say, the United States (such as the recent attack on Hong Kong's financial markets) would be punished by blacklisting the culprits in both jurisdictions. Such joint retaliation, especially with the likely backing of China, would cripple any financial firm's global ambitions.

D. Increased Depth and Liquidity of Financial Markets

For international investors, a key issue in allocating funds to a region is the depth and liquidity of its financial markets which facilitate exit and insure against manipulation and excess volatility. Integration of the financial markets of the two jurisdictions would reduce the liquidity premia and risk premia which international investors would demand, hence the cost of capital to regional firms.

E. Increased Internal Competition

The small internal markets of Singapore and Hong Kong mean that industries where scale economies are important (such as banking and telecommunications) have insufficient local players for competition to discipline their performance. This can be rectified by creating a unified, level playing field of a larger scale. The arrival of formidable new competitors would break up cosy informal arrangements to divide the market.

F. Stimulus to a Global Outlook

Despite their self-image and aspirations, key sectors of Singapore and Hong Kong remain insular in operation and outlook. For example, at most four banks in these cities have significant international operations; the stock markets have not attracted significant international listings. The international expansion of their competitive arena would challenge these institutions to adopt a truly global outlook.

G. Complementarity of Business and Governmental Skills

The Singaporean government's tradition of strong executive leadership of the entire economy has crowded out the free-wheeling, risk-taking, fast-moving private entrepreneurship characteristic of Hong Kong. Hong Kong's tradition of market-friendly neutrality by government has left its civil service unpracticed in the positive leadership such as Singapore has shown in its more focussed response to the Asian crisis. An alliance could bring to bear world-class skills of both types in leading the region out of the crisis.

H. Benchmarking Against the Sister City's Institutions

The key institutions in each city, such as the civil service, monetary and regulatory authorities, corporations, universities, and legal professions, having succeeded in a circumscribed arena, are prone to narcissism and complacency. An alliance would challenge each institution to benchmark its performance against that of its sister-city counterpart, and adopt its best practices.

POLICY MEASURES

A. Integration of Information and Trading Systems

- Governments should foster low-cost communication between the jurisdictions by cross-licensing of telecommunications companies.
- Governments should foster cross-jurisdiction information discovery, collation, and dissemination, so that residents can routinely ignore jurisdictional boundaries in business and financial decisions.
- There should be cross-jurisdictional integration of financial market data flows, order flows, and order execution. As in the integration of the London and Frankfurt Stock Exchanges, liquidity and market depth should be enhanced by an agreement that trades in either market should immediately be booked to the one where the instrument was issued.

B. Financial Integration

- Financial regulations should be harmonized.
- There should be automatic exchange of information on regulatory surveillance, investigation, and planning.
- There should be cross-listing of financial securities: a security (de-)listed in one jurisdiction should be automatically (de-)listed in the other.
- There should be cross-licensing of brokerages: a broker (de-)licensed in one jurisdiction should be automatically (de-)licensed in the other.
- There should be cross-licensing of financial institutions: an institution (de-)licensed in one jurisdiction should be automatically (de-)licensed in the other.
- There should be effective joint regulatory authority: in pursuit of offences committed within its jurisdiction, a regulatory body should be authorized to invoke the investigatory powers and sanctions of its counterpart in the other jurisdiction. Sanctions applied in one jurisdiction should be upheld in the other, e.g., firms (de-)listed in one jurisdiction should automatically be (de-)listed in the other.

C. Integration of Business Systems

- There should be harmonization of professional standards and the self-regulatory codes of professional bodies.
- Lawyers, accountants, engineers and other professionals (de-)licensed in one jurisdiction should be automatically (de-)licensed in the other and should be authorized to invoke their legal and professional mechanisms in business matters.
- In business matters, decisions reached by the courts in either jurisdiction should be enforceable in both.

Conclusion and Recommendations

This paper has attempted to highlight the window of opportunity which is presently open for cooperation between Singapore and Hong Kong. In addition to the present state of healthy competition which exists between the various industries and services offered by the two cities, there is now a need for a concerted effort on the part of both cities to work in a cooperative fashion.

As the strategic window of opportunity may not remain open for long, Singapore and Hong Kong must take decisive actions quickly. The following short-term recommendations, which involve both the public and private sectors, are to be implemented immediately.

- a) Broad range of exchange programs to be introduced, involving senior level government personnel first

It is recommended that an exchange of public sector personnel at a senior level be established so that there is a better understanding of public policies, which can facilitate the strategic partnerships of similar companies. Companies look toward the government for financial and tax incentives in overseas ventures. Public sector personnel, when working together, are in a better position to mould public opinions as well as to structure incentives to promote partnerships. This is a good way to help local companies to venture overseas. Although there are a few exchange schemes in place already, it is suggested that the present scheme be extended to cover a much wider net. The judiciary and the legislature should consider whether such a scheme is for them and in their interest, but as far as the civil service is concerned, there seem to be good reasons for extending the exchange to cover greater numbers, higher grades, and more departments (refer to discussion in previous section). Public corporations might also be invited to consider the proposition and perform their own reviews.

- b) Establishment of a Singapore/Hong Kong Business Forum, headed by two co-chairmen, with support offices in both cities, to set an agenda for action

The purpose of such a forum is to spearhead future cooperation in trade, business, and investment. This will provide the focal point for the generation and discussion of new ideas that will benefit both communities. Nations are rarely competitive in isolated industries. Thus, it is critical that Singapore and Hong Kong identify those clusters of interconnected industries of most strategic importance to the Asian region. Competitiveness and prosperity in the future will depend upon the respective businesses' ability to innovate and upgrade to improve their productivity.

Steps should be taken to help companies from both economies to understand each other and to develop partnerships. There are distinct advantages of such partnerships because of the geographic locations of Singapore and Hong Kong. For example, some Singaporean companies have extensive operational networks in the ASEAN countries and China. One of the common problems is the lack of supervisory manpower to cover so many regions. If a Singaporean company can form a partnership with a Hong Kong company, it can rely on the

Hong Kong partner to look after its operations in China so that it can concentrate on the ASEAN regions. Similarly, a Singaporean company can help out a Hong Kong company with the latter's operations in Malaysia or Indonesia. Other than geographic consideration, a partnership also provides synergy in total expertise available. Singaporean companies are generally stronger in technology, while Hong Kong companies are stronger in marketing. To facilitate this partnership, a Singapore/Hong Kong Business Forum should be set up for initiating discussions and contacts. By becoming familiar with each other's businesses and by sharing experiences, appropriate strategic alliances may be nurtured.

- c) Work on the cross-listing of the Growth Enterprise Market (GEM) with other Boards, including NASDAQ

The establishment of a second stock market board, GEM, is in progress in Hong Kong. GEM could attract regional businesses and global investors if the system is transparent and operates with few constraints. Since the bourses of Hong Kong and Singapore are clearly the most important ones in the region, a strong linkage between the two, similar to the recent development of the European Alliance, could be particularly useful. Due to its stricter regulations, the Singaporean bourse is considered by some to be less risky. Cross-listing and open listing in the GEM Board could help Hong Kong and Singapore, and the southeast Asian region as a whole, to maintain their competitive stance. The experiences gained during the recent Asian crisis have shown how the flow of foreign funds can inadvertently pose a very serious threat to regional financial stability.

In the medium term, Singapore and Hong Kong may wish to set up joint research centers for areas identified as strategic to both economies. Interdependence and interconnectedness are key elements for success, so specific clusters should be chosen carefully. They could concentrate on hard technological topics or on business strategies. One good area for research collaboration, for example, is in the area of IT. Singapore is ahead in its technology and R&D. However, it can rely on the cooperation of Hong Kong in providing a test market for a very large population base in Hong Kong and China. There is also a much larger pool of talent to tap for such research. For research in business strategies, perhaps Hong Kong can take a lead in providing insights into business practices in China. Singapore can complement this with its knowledge of business practices in Malaysia or Indonesia.

To a certain extent, the old generations of property, mercantile and industrial capitalists in Hong Kong and Singapore have already developed various cooperative relationships among themselves. But the proposed cooperation strategy in the new knowledge economy sectors is likely to involve new actors. It is also likely to require new leaders with credibility for these new actors. Therefore, there appears to be a need to establish new facilitating mechanisms to foster trust building and relationship marketing among these new actors for the new information-based economy: the new generation of technopreneurial business leaders and venture capitalists, the up and coming bureaucrats in key ministries with jurisdiction over the IT industries, the leading indigenous scholars in the university or private think-tanks who straddle technology and business, and selected journalists who specialize in covering the new knowledge economy.

A two-track strategy for building trust is suggested. The first track involves setting up a relatively small (i.e., not more than 12 persons) think-tank group comprised of selected scholars

who specialize in the new knowledge economy (e.g., economists, law and business school professors, etc.) and leaders of the new high-tech venture communities (e.g., founders of high-tech firms, venture capitalists, etc.) from the two cities. Prominent leaders from Singapore and Hong Kong should be enlisted to co-chair the think-tank group, and the venture communities from both economies should be willing to fund the operating costs. The group will develop more elaborate position papers to explore in detail various areas for cooperation between the two economies and make implementation strategy recommendations. These can then be circulated to a larger, second track comprised of government bureaucrats, social and political leaders, and the business community at large. Conventions of the larger group can be held to invite feedback and critique, so that the position papers can be further refined and improved, and where appropriate, circulated widely. These conventions will also help foster dialogue among the opinion makers in both economies.

Longer term suggestions for cooperation between Singapore and Hong Kong include the integration of information and trading systems, financial integration, and integration of business systems. Such policy measures will entail careful consideration of a number of issues key to successful harmonization. These are discussed in the previous section, entitled “A Broader View of Cooperation.”

Undoubtedly, the abundance of capacity for global broadband communication is creating unparalleled opportunities for the world to transform society and its economic future in a positive and affordable way. Singapore and Hong Kong are in a unique position to play significant roles for the southeast Asian region as the centers for consumer and producer services with manufacturing capabilities. In developing joint IT-enabled services, they may benefit from first mover advantages in the new emerging Information Age, where Internet is dominating and forming short channels. Singapore and Hong Kong should take this opportunity to use human intervention, as well as their understanding of the Asian cultural macroenvironment, to gain a sustainable competitive advantage in working with the Internet as an intermediary or middleman.

The strengths of the two virtual states, if combined strategically, should be greater than the simple sum of the two individual cities. The early development of an integrated information service environment is the means to achieve this status. The reasons for success can be summarized as follows:

- Rapid development of an integrated information service environment, within a city-state for government, business, economic, consumer, and producer services, and for direct support to the manufacturing processes, are possible and affordable. These services and production activities can only be developed elsewhere within bounded enclaves and with a very high level of investment, both in capital and time.
- When combined, Hong Kong and Singapore must make their two systems capable of co-working in an integrated form. This mode of operation requires both cities to attend to compatibility issues. Early resolution of such problems creates the way ahead for developing global standards through practice, rather than by going through a slow standardization process.
- The bilingual and bicultural history of Singapore and Hong Kong enable an early implementation of a cross language and cultural e-communication in a practical and easy to

use form. The e-commerce, e-education and many other solutions generated can be extended readily for multi-lingual and multi-cultural applications. It is highly likely that some of these achievements would be the world's firsts.

- With integrated information services, an overall improvement in productivity and efficiency can be achieved. By concentrating on business process reengineering, designed to achieve value-added benefits, productivity improvements are obtained and overall work efficiency is maximized. Such overall improvements translate into increased competitiveness.
- For many generations, the people of Hong Kong and Singapore have built deep-rooted relationships. Both cities inherited common administrative procedures adapted from the British civil service. Singapore and Hong Kong can readily establish a close working relationship and a meeting of the minds. Cooperation does not need to start from scratch, even though the current misperceptions from both sides must be somehow eliminated.
- Both cities should continue to compete with each other on many fronts. However, partnerships and acquisitions are important in the development of IT business. Small businesses in IT are targets for merger and acquisition. Singapore and Hong Kong will lose their respective advantages in the early development of key technology and businesses if these are not combined to form a unique integrated IT service environment. Joint action is the fastest way to accomplish this task. It should be a natural process, and not a forced marriage, which urges companies to seek cooperation.
- Information technology and services are the enabling tools for the development of the integrated IT environment. Positioning themselves as intermediaries, Singapore and Hong Kong should offer IT-enabled services, which will provide competitive advantages in working with the Internet.
- The interdependence of Singapore and Hong Kong will make both cities stronger and will allow more rapid progress to be made. The operational contrasts of the two cities complement each other, and should be considered as an asset.

Several pragmatic and logical steps have been proposed to push forward the era of cooperation between the two most dynamic and successful cities in Asia. These steps are in the right direction, given the rapid evolution of the global village. The barriers of trade, finance, and telecommunications are coming down everywhere. If Singapore and Hong Kong are to thrive and prosper in the 21st century, they should build alliances within Asia that will enable them to compete successfully with the elite forces coming from the outside. As trading territories, Singapore and Hong Kong cannot afford not to move with the times. Protectionism is not an option; neither is inactivity. They must jointly forge strategic alliances, create new values where none existed previously, and nurture new patterns of wealth creation.

Implementation of the recommendations proposed above must be executive-led in order to overcome vested interests threatened by external challenge and the disruption of cosy anti-competitive arrangements. The carrot would be the opening up of a fresh, level playing field in which to exploit existing skills and form new partnerships. A virtual state derives its economic strength from the richness of its internal informal links which facilitate the distribution of information processing across the entire state. Therefore, the formal measures proposed above must be supported by active promotion of informal links at the professional and popular levels, so that citizens routinely view both cities as their joint business arena.

Support by the Prime Minister of Singapore and Chief Executive of Hong Kong will give cooperation a higher profile than it has hitherto enjoyed, and this is clearly needed if perceptions and attitudes of the general public are to be changed. A paradigm change will not take place of its own accord. Someone must represent the cause and lead the way -- who better than the leaders of these two powerful economies?