The Emerging E-economy: Implications for Hong Kong and the Region

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The recent revolution in information and communication technologies (ICTs), as marked particularly by the rapid growth of the Internet, has generated extensive economic impacts worldwide. Advances in ICTs have among other things created a global network economy that facilitates further integration of the global goods and capital markets. Reductions in information and transaction costs encourage businesses to adopt more globalised production, sourcing, and marketing strategies. Importantly, the emerging network economy offers unparalleled opportunities for developing countries to catch up on industrialization and development. Given the improved access to a global information base and the opportunity to become a part of the global supply chain, they are now more able to leapfrog stages of industrialization to develop technology and information -intensive industries.

To gain fully from the emerging economic networking, developing countries should take active steps to boost their ICT infrastructure and other knowledge and resources base required for the new economy. Effort should also be devoted to examining the ways through which an economy could take full advantage of ICTs to enhance its overall efficiency and to re-energize the "old" economy that reflects its existing strengths. This has important policy implications for Hong Kong as a small, service -oriented economy and a latecomer in information-intensive industry. This paper examines the strategy for Hong Kong to strengthen its competitive edge and to re-position itself for long-term growth in a network economy. Particular attention is given to examining Hong Kong's potential as a regional Internet hub and exploring the transformation of its traditional industry based on of the advancement in ICTs.

Current Developments of the New Economy in Hong Kong

Hong Kong has developed an advanced telecommunications infrastructure. It has operated a fully digitalized network since 1995 and has achieved full broadband coverage for all commercial buildings and over 90% of domestic units. There are a total of 31 external facility operators licensed to operate satellite and cable facilities and 165 external telecom services operators. Mobile phone penetration rate has reached 71% of the population.

The Internet has been widely adopted in both household and business sectors. The computer penetration rate has reached 50% of all households in Hong Kong and, some 73% of computer-owning households are connected to the Internet. As for the business sector, about half of business establishments have computers, among which 37% have Internet connections. About 7% of firms have their own web sites. Electronic commerce in Hong Kong is still at the early stage. Only 5% of firms have ordered or purchased (and 35% of them received) goods, services, or information online. Business receipts generated from online sales of goods and services in 1999 amounted to HK\$4.6 billion, representing only 0.11% of the total. Hong Kong has experienced a drastic business transformation based on the advancement in ICTs. In addition to the rapid growth of telecommunication, Internet, and other related industries, many conventional service industries have already taken steps to offer their services online. In addition, major real property developers have diversified their businesses into the Internet or related commercial applications.

Evolving Role of Government in the New Economy

The network economy has added an extra dimension to the government's role in promoting economic growth and development. As widely argued, investment in R&D contributes greatly to technological advancement and growth. It also generates huge positive external benefits. The government should therefore adopt an active R&D policy and increase its R&D investment and encourage private sector R&D initiatives. In addition, owing to their lack of fixed assets and high risks, (small) technology firms find it extremely difficult to seek funding through conventional

channels e.g., bank lending. The government should take steps to address this funding difficulty e.g., by providing funding to encourage business start-ups and developing a venture capital market. The fast-changing skill requirements of the new economy also call for a major revision in human resources strategy. It should be aimed to produce a workforce that are technologically sophisticated and creative and have diverse talents.

Competition has become increasingly scale-neutral, and small firms can develop their edges and produce customized products for multiple markets. This poses a major challenge to the traditional views on the advantages scale economies based on mass, standardized production. Equally important, there will be widespread business re-engineering and consolidation (e.g., through merger or acquisition, outsourcing, de-merger, or strategic alliance) as firms try to upgrade to or focus resources on core technology businesses. The government should review its industry and competition policies, among other things, to encourage the growth of SMEs and prevent the emergence of monopoly. In addition, rapid economic re-structuring and business re-engineering would likely cause an excess supply of simple-skilled labour, the widening of income inequality, and a rise in structural unemployment. The government should ensure that adequate unemployment and re-training supports a re provided.

Hong Kong's Potential as an IT hub in the Asia-Pacific Region

The government aspires to develop Hong Kong as a leading IT hub in the Asian Pacific region both for Internet traffic and content developments. To achieve this, Hong Kong needs to enhance its locational advantage to boost (or divert) Internet traffic, and to make it the crossroads for electronic transactions in the region. The government has taken steps to boost Hong Kong's information infrastructure and to put in place other sdt infrastructures (e.g., a pro-competition regulatory framework, R&D or innovative capabilities, and human capital) to re-shape its competitive advantage. Most notably, the government has launched a Cyberport project in cooperation with a private company to provide the required IT infrastructure/facilities for a strategic cluster of IT firms specializing in Internet applications and multimedia developments.

Hong Kong's established role as a regional trading, business and financial hub contributes to the development of a regional IT hub. This has made it a focal point (or crossroads) for flows of all kinds of business, market, and financial information, as well as for commercial communications and exchanges. This greatly enhances Hong Kong's potential as a regional hub for electronic commerce. Given its proximity to Mainland China (and the extensive business connections), Hong Kong can also develop as the gateway for electronic commerce to the Mainland. In addition, Hong Kong has great potential in other Internet content developments. Among other things, Hong Kong is already a regional publishing centre and a leading exporter of films and television programmes. This enhances Hong Kong's position to develop as a regional multi-media and broadcasting hub.

Development of a Logistics and Distribution Centre in Hong Kong

The development of third-party logistics industry (3PLs) and a logistics distribution centre enhance the competitiveness and facilitate the upgrading of Hong Kong's manufacturing industry. Substantial reduction in transaction and information costs and time, combined with the use of information management technology and computer-aided production, helps local producers to re-engineer the supply chain management, production, marketing, and delivery processes. The global network economy (coupled by the growth of electronic commerce) also offers a great opportunity for Hong Kong's manufacturers to link up with multiple global supply chains, selling to overseas (retail) market directly.

To gain from the emerging opportunities, local producers need to adopt modern logistics and warehousing support. However, due to the huge capital needed to invest in logistics technology and facilities, it would be more cost efficient for firms to outsource logistics functions to 3PL providers. It also allows firms to re-engineer their operations and focus resources on the core business. The building of a logistics and distribution centre greatly boosts Hong Kong's 3PLs capabilities. In addition, given its long-standing role as a regional trading and transport hub and a gateway to Mainland China, Hong Kong has great potential to become a regional logistics and

distribution hub. The government has already taken interest in this matter, and has chosen a site near the airport for the building of a logistics management centre.

Development of E-Banking and E-Brokerage in Hong Kong

The growth of Internet banking is expected to transform the industry drastically. Internet banking provides the virtual counterparts of a physical branch and a wide range of customised services. Among other things it enables banks to switch away from paper transactions and consolidate the number of physical branches, saving on operating costs. ICTs greatly enhance banks' capabilities to process and analyse information about their customers, facilitating "mass customization" of products. Internet banking should also enhance competition in the industry. Foreign (or small) banks with a small branch network are in a stronger position to compete with bigger banks. Most of Hong Kong's major commercial banks already offer their services online, through a dual -channel delivery (or so-called "click -and-mortar") approach.

Advances in ICTs also contribute to the transformation of the stock market. The growth of online brokerage helps enhance competition, transparency, and efficiency of the industry. It helps to lower operating cost by reducing paper-based trading and human intermediation. E-brokerage also poses a challenge to the traditional brokerage system. It provides direct access to the exchange, enabling investors to dis-intermediate traditional brokers. Increased competition forces traditional brokers to abandon (lower) the fixed commission and to re-define their services to investors. A more transparent and competitive stock market with lower transaction costs should encourage more active trading. E-brokerages have grown rapidly over the past few years. Many banks with online channels and major brokerages in Hong Kong already offer their services online. Some of them have also launched online trading for foreign, e.g., U.S., stocks.

Implications for Regional Cooperation

Concerns have been raised about the emergence of the global digital divide. Looking positively, the network economy has offered a new digital opportunity for developing countries. Access to a global pool of technologies and market information allows developing countries to skip old technologies and leapfrog intermediate industrialization stages to develop the new economy. They could develop their own niches and position themselves as a part of the global supply chain. Apart from the conventional growth measures, developing countries should take active steps to build their information infrastructure, promote digital literacy and IT education, boost R&D and innovation capabilities, and develop a venture capital market.

Concerted actions among Asian economies are required to facilitate cross-border electronic commerce. In addition to the building of a regional network of information infrastructure, multinational efforts should be made to improve confidence in electronic transactions (e.g., by promoting cross-recognition of certification) and enhance consumer protection and address the protection of intellectual property rights in the cyberspace. To reduce the cost and time of goods delivery. Asian countries should boost their physical infrastructure and simplify customs clearance procedures. The global economic networking is expected to drive cross-border trading in goods and services as well as securities. Rapid growth in cross-border payment and settlement traffic calls for an upgrading of the international payment infrastructure. Asian countries should explore seriously establishing an intra-regional network of national real-time gross settlement (RTGS) systems. Such a financial infrastructure will also facilitate seamless trading in financial instruments. Apart from alleviating the burden of a surging volume of trading, it could greatly reduce payment and settlement risks. In addition, to facilitate the integration of Asian financial markets, it is crucial for Asian countries to harmonize the regulatory and supervisory standards for their banking systems and stock exchanges.