Regional container port competition and co-operation: the case of Hong Kong and South China

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Abstract

As the entrepôt to the Chinese mainland, the economy of Hong Kong has enjoyed a high growth rate of economic development. When Hong Kong developed its container ports in order to accommodate the regional economic boom, its counterparts in China were left far behind; there was no serious port competition from China. However, as China develops its economy, the port of Hong Kong faces real challenges from Chinese ports, particularly from southern ones. Interestingly, the handover of its sovereignty to China in 1997 caused an issue of competition and co-operation between these ports. This paper aims to examine the possible competition and co-operation of the adjacent container ports in Hong Kong and South China from a strategic perspective.

1. Introduction

The fact that the global economy is shifting towards the newly industrialising countries in Asia and that greater seaborne trade links exist between Asian nations is resulting in fast regional economic development and growth. Since international trade is carried predominantly by sea transport, major container ports play a crucial role in regional economies. The latest available statistics (Port Development International, 2000) show that, in terms of annual container throughputs, 10 Asian ports are ranked among the top 20 container ports in the world, including the top four – Hong Kong, Singapore, Kaohsiung and Pusan.

Amongst Asian economies, the Chinese economy is arguably regarded as the world’s most fascinating in the modern era. As the entrepôt to the Chinese mainland, the economy of Hong Kong has enjoyed a high rate of economic development until the Asian financial turmoil that broke out at the end of 1997. When the Hong Kong economy commenced its dramatic economic growth with the other ‘tiger economies’ and developed its container ports in order to accommodate the regional container traffic accordingly, its counterparts in China were left far behind. Consequently, there has been no serious port competition from the Chinese mainland in the last 20 years, and the role of Hong Kong ports as a regional hub has been aggrandised.

Since China has, however, been developing its economy at a two digit growth rate since the early 1990s, the port of Hong Kong faces real challenges from ports in the Chinese mainland, in particular from southern ones such as Chiwan, Shekou and Yantian (see Map 1 for the geographical location). Furthermore, the historical handover of sovereignty to China in the middle of 1997 caused the issue of competition and co-operation between the ports to be more momentous. Even after the handover in mid-1997, when Hong Kong became officially a part of China, Hong Kong still remains an independent customs territory according to the Basic Law. With this context in mind, this paper aims to review the current and prospective status of those ports and to prescribe the possible competition and co-operation of the adjacent container ports in Hong Kong and South China from a strategic perspective.

2. Trade patterns between Hong Kong and South China

Since maritime transport is derived from international trade, it is logical to examine the trade patterns between the two regions before moving on to the main theme. Hong Kong has always been open to China, and
Hong Kong businessmen currently receive no special treatment from the Chinese mainland compared to other foreign business people. Due to geographical proximity, extended family relationships and linguistic closeness, however, Hong Kong businesses often get informal extra incentives, particularly from local authorities in Guangdong (Fung, 1996).

Thanks to its strategic location, its modern facilities in banking, finance, and insurance systems, and its modern telecommunication and transportation network, Hong Kong remains the Chinese mainland’s main gateway to the rest of the world. On the other hand, to a large extent, the world continues to view Hong Kong as the main entrance to the Chinese mainland (Sung, 1998).

A large volume of trade in both countries is the so-called entrepôt trade. In other words, the role of Hong Kong in China’s trade is by and large as an intermediary. In this respect, two notable trade patterns between the Chinese mainland and Hong Kong are worth discussing: that is, re-exports and outward processing.

### 2.1. Re-exports trade pattern

Over the last few years, the Chinese mainland has been the largest market for Hong Kong’s total exports, followed by the United States, Japan, Taiwan and Singapore. Domestic exports from Hong Kong to the Chinese mainland were HK$ 314,651 million in 1998, up 6.3% compared to the previous year in terms of real value (Table 1). On the import trade, the Chinese mainland also remained the most important partner of Hong Kong imports, accounting for approximately 38% of their total value in 1998.

Re-exports take place when imports to Hong Kong are consigned to a buyer in Hong Kong, who takes legal possession of these cargoes. Re-exports are also required to clear customs. The buyer in Hong Kong carries out a value-added economic activity, then re-exports the goods elsewhere. The value-added activity may include grading, packaging, bottling, assembling, and types of minor manufacturing functions, which do not, however, change the basic nature of the goods. Hong Kong origin is not, therefore, supposed to be conferred by the Hong Kong government body. If the process alters substantially the nature of the products, then the goods are entitled to be named as goods ‘made in Hong Kong’. Exports of goods ‘made in Hong Kong’ are classified as domestic exports rather than as re-exports (Sung, 1991).

Overall, re-exports via Hong Kong have registered a significant growth in recent years. In 1998 alone, the value of re-exports to all markets was HK$ 718,631 million, which is more than 18% higher than in the previous year (Census and Statistics Department, 1999). In general, the value of re-exports has been growing rapidly and become a more and more important wealth-creating trade pattern to the Hong Kong economy, while the value of domestic exports has been shrinking. In 1998, re-exports accounted for 83% of the total international trade, up from 79% in 1997 and from 75% in 1996. The Chinese mainland is the most crucial source
of goods re-exported through the Hong Kong border: Chinese goods re-exported via the territory of Hong Kong amounted to HK$ 276,012 million, which was more than a third of total re-exports handled in 1998.

2.2. Outward processing trade pattern

Outward processing arrangements are made if companies subcontract all or part of their production processes. These trading patterns often occur between Hong Kong companies and manufacturing entities in China. Raw materials or semi-manufactures are exported to China for further processing. The Chinese mainland entities engaged can be local enterprises, joint ventures, or some other form of business involving foreign investment (Hong Kong Government, 1994). About four-fifths of Hong Kong manufacturers have transferred production to China, and 25,000 factories in the Pearl River Delta (PRD) region of Guangdong are engaged in outward processing for Hong Kong companies (Hong Kong Government, 1995). Table 2 shows the extent of domestic exports and imports associated with Hong Kong processing in the Chinese mainland.

In summary, both re-exports and outward-processing business activities are substantial characteristics of the trade between Hong Kong and the Chinese mainland. It is moreover speculated that Hong Kong’s trade pattern with China will continue to grow over the next years. Given its geographical location and its know-how in banking and finance, insurance, and telecommunication and transportation, Hong Kong is expected to continue to serve as the gateway to and from the Chinese mainland, which benefits each side via trade, so as to create and sustain economic synergy in the region.

3. The container ports in Hong Kong and South China

3.1. Seaborne container cargo traffic

The port of Hong Kong has been the world’s busiest container port for the last decade, with remarkable TEU throughputs as shown in Fig. 1. An exception was the year 1998, when the number one position was taken over by the port of Singapore (Lloyd’s List Maritime Asia, 1999). This was due partly to Singapore’s major efforts to become a hub port in the region, and partly to the southern Chinese ports’ successful efforts to compete directly with Hong Kong.

Historically, Hong Kong’s port has expanded along with the fast economic development in Southeast Asian countries and China, and greater international trade connections between these areas and the rest of the world. Rimmer (1996) points out the role of Hong Kong in global as well as regional container transport, and views Hong Kong as a regional hub port or load centre, which cannot be separated from the regional hub in Southeast Asia and South China. Today Hong Kong’s port, however, faces more severe competitive circumstances, particularly the challenges from regional ports such as Singapore and Yantian, located in southern China. This problem is well documented recently: for example, Wong and Beresford (1996a), Bangsberg (1998), Wong (1999), and Mooney (2000).

As a consequence, Hong Kong’s position as a leading load centre and transhipment centre for China-bound cargoes is under threat from a number of developments. These include its reversion to China in 1997, port development in China itself, speculation on the opening of direct shipping links between Taiwan and the Chinese mainland, and the easing of restrictions on access to

Table 2
Domestic exports and imports concerning outward processing (unit: %)

<table>
<thead>
<tr>
<th>Year</th>
<th>Hong Kong exports to China</th>
<th>Hong Kong imports from China</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>79.0</td>
<td>61.8</td>
</tr>
<tr>
<td>1991</td>
<td>76.5</td>
<td>67.6</td>
</tr>
<tr>
<td>1992</td>
<td>74.3</td>
<td>72.1</td>
</tr>
<tr>
<td>1993</td>
<td>74.0</td>
<td>73.8</td>
</tr>
<tr>
<td>1994</td>
<td>71.4</td>
<td>75.9</td>
</tr>
<tr>
<td>1995</td>
<td>71.4</td>
<td>74.4</td>
</tr>
<tr>
<td>1996</td>
<td>72.8</td>
<td>74.9</td>
</tr>
<tr>
<td>1997</td>
<td>75.6</td>
<td>75.2</td>
</tr>
<tr>
<td>1998</td>
<td>76.8</td>
<td>76.6</td>
</tr>
</tbody>
</table>

Note: Figures indicate ‘percentages’ of total Hong Kong domestic exports to and imports from China.
Source: Census and Statistics Department (1999).
Chinese ports for foreign shipping lines (Drewry Shipping Consultants, 1995). To make the situation worse, Hong Kong faces congestion problems at its ports which distract from its competitiveness.

Almost every major international container shipping company is now engaged in trade with China and operates direct line services to an increasing number of Chinese ports. The occurrence of the direct services by major lines has only been within the last few years. In the past, the largest proportion of container trade with China was transhipped via Hong Kong, Taiwan and Korea. In spite of the fact that a significant amount of container trade bound for China is still transhipped through these three territories, mainly Hong Kong, the Chinese government is operating a deliberate policy to reduce the ratio (Drewry Shipping Consultants, 1999). Table 3 shows the steady but sharply increasing proportion of direct callings by major container shipping companies at Chinese ports, with the portion at Hong Kong’s port becoming relatively less significant.

One point to be mentioned in Table 3 is that the number of direct callings at the three South Chinese ports – Yantian, Shekou and Chiwan – have escalated, particularly since the handover in 1997: 19 lines calling directly to those container ports in 1998 compared with 14 in 1997 and only 5 in 1996. Table 4 shows the details of the direct ocean container services offered by Yantian, Shekou and Chiwan. As shown in Tables 3 and 4, among the three promising ports, Yantian is largely considered as the front runner against its Hong Kong counterpart, through attracting many major international shipping lines to use its services for Trans-Pacific and Euro-Asia routes. Yantian also provides frequent feeder services to Hong Kong and other major Chinese coastal ports.

Yantian is located in the eastern part of the Shenzhen Special Economic Zone, which is one of the major

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Table 3

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<thead>
<tr>
<th></th>
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<tbody>
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<td>15</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
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<td>18</td>
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<td>9</td>
<td>9</td>
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<td>11</td>
<td>11</td>
<td>10</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>9</td>
</tr>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>6</td>
</tr>
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<td>Chiwan</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>18</td>
<td>16</td>
<td>14</td>
<td>15</td>
</tr>
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<td>Total (of above)</td>
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<td>69</td>
<td>62</td>
<td>63</td>
<td>61</td>
<td>78</td>
<td>74</td>
<td>86</td>
<td>91</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>55</td>
<td>46</td>
<td>48</td>
<td>48</td>
<td>45</td>
<td>44</td>
<td>39</td>
<td>47</td>
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</tr>
</tbody>
</table>

economic powerhouses in China. The port of Yantian commenced its operation in 1994 and currently has Maersk/Sealand, COSCO and the members of Global Alliance calling. Using the current facilities, the port handled 1.59 million TEUs in 1999 alone, an increase of 54% on 1998. The port capacity will be up to 1.7 million TEUs with the completion of the planned Phase Two development scheme. According to the long-term plan set up by the Chinese government, up to four ship berths can be constructed in the future (Shippers Today, 1997).

Moreover, the geographical condition of the port of Yantian puts an additional strength to its potential to be a major competitor against the port of Hong Kong. The speed of Yantian’s potential development, however, depends largely on the pace of cargo expansion created in the surrounding region. To generate more cargo flow, Yantian International Container Terminals Company has been connected to Hong Kong and coastal cities in northern Guangdong and Fujian Provinces by feeder services to supplement its immediate cargo base in Shenzhen and the adjacent areas. It is expected that many Chinese cities will be linked to Yantian through a connecting line of the Beijing–Kowloon Railway. These overall features imply that the port of Yantian has the highest potential among southern Chinese ports to develop into a major container port in the near future.

3.2. Administrative and ownership structures

The administrative and ownership structures of the principal ports in the region provide an aspect of the competition and co-operation which takes place between the two neighbouring areas.

3.2.1. Hong Kong

The administrative and ownership structure of Hong Kong’s container terminals can be depicted as a three-tiered hierarchy. Since it maintains ownership over the land upon which the container terminals are built, the Government of the Hong Kong Special Administrative Region (HKSAR) constitutes the highest tier in the administrative structure. Under the HKSAR Government, the Marine Department acts in the capacity of port authority and deals with all navigational matters of the regional port. It has responsibility for vessel traffic management, the safety standards of all classes and types of vessels and other regulatory matters, and is involved in the strategic planning of port developments. The Hong Kong Port and Maritime Board is also involved in the planning of new port developments, but itself is not a governmental body. Rather, it comprises representatives of Hong Kong’s private sector shipping and port interests as well as from government. It is constituted as an advisory body to the HKSAR Government.

The HKSAR Government is the lessor of land sites to the private terminal operating companies. Neither the Government nor the Marine Department owns or operates container terminal facilities. These are all privately owned and operated by four private companies: Modern Terminals Limited (MTL), Sea-Land Orient Terminals Limited (hereafter referred to as ‘SLOT’), Hongkong International Terminals Limited (HIT) and

<table>
<thead>
<tr>
<th>Port</th>
<th>Route</th>
<th>Frequency</th>
<th>Shipping line</th>
<th>Ship slot (TEU)</th>
<th>Commencing time</th>
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</thead>
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<td>Yantian</td>
<td>North America</td>
<td>Once a week</td>
<td>Maersk/Sea-Land</td>
<td>3932–6000</td>
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<td>Once a week</td>
<td>New Global Alliance</td>
<td>4800</td>
<td>January 1996</td>
</tr>
<tr>
<td></td>
<td>North America</td>
<td>Once a week</td>
<td>New Global Alliance</td>
<td>4300</td>
<td>January 1996</td>
</tr>
<tr>
<td></td>
<td>North America</td>
<td>Once a week</td>
<td>K-line</td>
<td>3720</td>
<td>March 1998</td>
</tr>
<tr>
<td></td>
<td>North America</td>
<td>Once a week</td>
<td>Grand Alliance</td>
<td>4830</td>
<td>February 1998</td>
</tr>
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<td></td>
<td>North America</td>
<td>Once a week</td>
<td>Grand Alliance</td>
<td>2900–3600</td>
<td>February 1998</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td>New Global Alliance</td>
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<td>Grand Alliance</td>
<td>4600</td>
<td>February 1998</td>
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<tr>
<td></td>
<td>Australia</td>
<td>Once a week</td>
<td>Far East Transportation (HK) Limited</td>
<td>1274</td>
<td>July 1998</td>
</tr>
<tr>
<td></td>
<td>North America</td>
<td>Once a week</td>
<td>Evergreen</td>
<td>5346</td>
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<td>CMA</td>
<td>3501</td>
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<td>Shekou</td>
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<td>4000</td>
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<td>Once a week</td>
<td>ZIM</td>
<td>3500</td>
<td>July 1997</td>
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<tr>
<td></td>
<td>North America</td>
<td>Once a week</td>
<td>COSCO</td>
<td>5250</td>
<td>October 1997</td>
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<td></td>
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<td>February 1998</td>
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<td></td>
<td>Australia</td>
<td>Once a week</td>
<td>P&amp;O N/OOCL/ZIM</td>
<td>2300</td>
<td>May 1998</td>
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<tr>
<td>Chiwan</td>
<td>Europe</td>
<td>Once a week</td>
<td>North EuroAsia/Mediterranean</td>
<td>3066</td>
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<tr>
<td></td>
<td>Australia</td>
<td>Once a week</td>
<td>Mediterranean</td>
<td>1100</td>
<td>August 1997</td>
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</table>

COSCO-HIT Terminals (HK) Limited (hereafter referred to as ‘COSCO-HIT’). The overall administrative structure of the container port of Hong Kong is illustrated in Fig. 2.

MTL has provided services since September 1972, with terminals 1, 2 and 5, and two berths at terminal 8 (west). MTL will be offering a new facility at terminal 9 (south) with a 1210 m quay and a throughput capacity of 4.45 million TEU when the on-going construction is completed. SLOT is the operator of terminal 3 in the Kwai Chung Container Terminal. The company was established in 1981 to develop a comprehensive cargo handling and distribution facility as a dedicated terminal within the port of Hong Kong. HIT, a member of the Hutchison Port Holdings Group, was set up in 1969 and now operates container terminals 4, 6 and 7. In 1996, HIT was offered the right to develop and operate two berths in container terminal 9. COSCO-HIT was formed in 1991 by the joint venture of HIT and China Ocean Shipping Company (COSCO), and is currently the terminal operator of terminal 8 (East) in Kwai Chung.

3.2.2. South China: Shenzhen

The administrative and ownership structure of the Shenzhen port is shown in Fig. 3. The port of Yantian is operated by Yantian International Container Terminals Limited (hereafter referred to as ‘YICT’), established in 1993, which is a joint venture between the Hutchison Ports Yantian Limited (73%), itself shared by the Hutchison Port Holdings Group (63%) and Maersk–Sea Land (10%), and the Shenzhen Yantian Port Group (27%). YICT is equipped with advanced port facilities and is well served by inland transport links.

Shekou port lies on the east bank of the Pearl River. Similar to Yantian, it is well positioned geographically to take advantage of the business flowing to and from the Pearl River estuary. Its development potential will be enhanced by the opening of the Tonggu Waterway. The container terminal is owned by Shekou Container Terminal Limited, opened in 1991, which is a joint venture between China Merchants (SCT) Holdings, P&O Ports, Swire Pacific and COSCO. The terminal has been jointly managed by P&O Ports and Modern Terminals Limited as from May 1998.

Chiwan is relatively a small port when compared to Yantian and Shekou. With its continuous development in container handling facilities, it can act as a sub-distribution centre for the container business in Hong Kong. The terminal operator is the Shenzhen Chiwan

![Fig. 2. Administrative and ownership structure of Hong Kong ports. (Source: Cullinane and Song, 2001.)](image1)

![Fig. 3. Administrative and ownership structure of Shenzhen ports. (Source: Cullinane and Song, 2001.)](image2)
Kaifeng Container Terminal Company, which is jointly invested by Chiwan Wharf Holdings Limited (55%), Kerry Holdings (HK) Limited (25%), China Merchants Holding (International) Company, and Modern Terminals Limited (20%).

3.3. Inter-relationship

Based on a review of each port’s organisational structures, it is found that the ports in the region are competing against each other, but, at the same time, they are working in a co-operative form for mutual benefits. The inter-relationship between the ports can be simplified by the illustration of Fig. 4 in terms of their inter-, intra-competition and co-operation.

On the Hong Kong side, HIT, MTL, COSCO-HIT and SLOT compete against each other for container operations within Hong Kong territory. However, only HIT and MTL are in real competition, since SLOT is a dedicated terminal for its mother liner company Sea Land (before the merger with Maersk); COSCO-HIT mainly deals with COSCO’s cargoes. More importantly, COSCO-HIT and HIT have the Hutchison Port Holdings Group as their common owner, which means, for the sake of its interests, that co-operation is facilitated through personnel sharing between them in order to combat the other two players in the market.

On the other side, in Shenzhen, local competition exists between the three ports: Yantian, Shekou and Chiwan. Due to the port ownership pattern, competition is especially keen between Yantian and the other two ports. There may be some form of co-operation between Shekou and Chiwan through the common ownership of the China Merchants Holding (International) Company. This can be further supported by the fact that MTL, one of the shareholders of Chiwan port, was awarded the management contract for Shekou Container Terminals when it extended its operations to the Chinese mainland in May 1998.

Today the Hong Kong operators have control, to some extent, of the operation of key ports in South China through a variety of co-operative measures such as joint ventures. This phenomenon intensifies and extends the competition between the container port operators from local competition to regional competition, while greatly enhancing the co-operation between the port of Hong Kong and its counterparts in South China. The two major players in Hong Kong, the Hutchison Port Holdings Group and MTL, are also involved to a great extent in Yantian and Chiwan, respectively. The two companies compete locally within Hong Kong and Shenzhen, and also regionally between the ports of Hong Kong and Shenzhen.

In spite of such fierce competition, there also exists some form of co-operation between these ports. As shown in Fig. 4, the Hutchison Port Holdings Group is particularly active in the private sector in the Chinese ports.

4. Port co-opetition: a new strategic option?

Co-operation exists between Hong Kong and Yantian through the Hutchison Port Holdings Group’s common ownership. Co-operation exists between Hong Kong and Shekou through COSCO’s common ownership. Co-operation exists between Hong Kong and Chiwan through MTL’s common ownership. In this respect, Hong Kong and South China should take into serious consideration a new strategic approach – ‘co-opetition’, a term coined by Brandenburger and Nalebuff (1996). The term ‘co-opetition’ is a mixture of competition and co-operation, thus having a strategic implication that those engaged in the same or similar market should ‘collaborate to compete’ as a win–win strategy, rather than a win–lose one. If business is regarded as a game, who are the players and what are their roles in the market? There are several parties involved in the market: customers and suppliers. Business cannot be carried out...
without them. As a result, naturally, there exist competitors. However, there is one more important group which is often overlooked but equally important – those who provide complementary rather than competing services. Brandenburger and Nalebuff (1996) name this group as ‘complementors’, a counterpart to the term ‘competitors’. This relatively new concept stems from an idea initiated by Jorde and Teece (1989, p. 25), who note that whereas co-operation among firms was once a subject confined to anti-trust case books, it is increasingly a topic for discussion…. Indeed, ways in which firms can ‘co-operate to compete’ are receiving considerable attention. …

This argument is in line with the current phenomenon in the liner shipping industry, which can be characterised by a movement towards strategic alliances between major international companies. In fact, Juhel (2000) initiates a co-operative concept between ports in order for them to adapt themselves to a flexible traffic distribution pattern through several port outlets. Again, Avery (2000) proposes strategic alliances between adjacent container ports – ‘port strategic alliances’ – as a counter-strategic option in order to survive the ever-increasing competitive business environment.

On the other hand, a perspective from economics, market power theory, provides a useful tool by which we can explain the current situation and predict the future trend of container ports in the region. In a broad sense, market power is the ability of a market participant or group of participants (i.e., persons, firms and partnerships, etc.) to influence price, quality, and the nature of the product or service in the marketplace (Shepherd, 1970). The fact that a terminal operator has a high degree of market power, with this definition, means the operator has high degree of control over pricing and services decisions in a port service market. Under the assumption that the container port operators in this region are profit maximisers, they attempt to improve their competitiveness by securing stronger positions in their market, so that they can increase their market power.

It is also claimed that the relative position which firms occupy in their markets determines the generic strategies which are the most viable and profitable for their business (Porter, 1980). Rather than utilising competitive strategies alone, the terminal operators may adopt a co-operative strategy as a useful option to develop a stronger position in their market. In other words, a co-operative strategy may offer a mutually beneficial opportunity for collaborating units to reshape their positions in the industry; it may allow them to increase their market power as well.

The easing of the restrictions on access to Chinese ports for foreign shipping lines encourages more and more shipping liners to call directly at container terminals in China, thereby threatening Hong Kong’s position as a leading load centre and transhipment centre for China-bound cargoes. Moreover, mergers and alliances among large shipping lines are attributed to the transformation of some feeder ports in China into regional hub ports. Due to the furious competition in the container shipping market over the last decade, ocean container carriers are focussing on pursuing maximum market share and minimum running costs. Mergers, take-overs and alliances among large shipping companies have become prevalent for consolidation of these large shipping liners’ ruling role in the market (Ryoo and Thanopoulou, 1999). As a result, some feeder container ports have gradually changed into regional hub ports. Shenzhen is a typical example. As the competitiveness of the Chinese ports is greatly enhanced, Hong Kong faces much more rivalry than ever before.

The rationalisation of container line services has resulted in the greater market power of the alliances and consortia (Heaver et al., 2000). As international shipping lines have more choices of port, they can call at Shenzhen rather than Hong Kong. Shenzhen port is particularly attractive in that it offers shipping lines a new way to open up direct connections with the vast market in South China, an economic powerhouse in China. On the other hand, under alliances and mergers and acquisitions, several shipping companies can collectively negotiate with terminal operators for favourable service charges and conditions. If a terminal operator loses one of the alliances, it may lead to a substantial reduction in sales.

The larger size of vessels and intermodality also influence the competition between ports. Larger container ships are built to achieve economies of scale (Cullinane and Khanna, 1999; Cullinane et al., 1999). Due to the depth limits of container ports, fewer ports are served directly by transoceanic vessels. Moreover, inland intermodal hubs enable containers to be shipped longer distances across continents to make connections with ports. Hence, the hinterland and foreland of the port are expanded. As a consequence, ports compete locally as well as regionally against other ports, even long-distance, serving the same inland areas (McCalla, 1999). The players in the container port market realise this inevitable trend of industry rivalry. They react by forming strategic alliances with their competitors as a co-operative strategy.

4.1. Joint venture as a co-competitive strategy

All the various factors discussed above are accelerating the competition between the container ports in China. Referring to Porter’s (1980) five competitive forces model, industry rivalry becomes more intense and the bargaining power of the shipping lines, which are the
customers of the container ports, is strengthened. This threatens the profitability of the container ports and weakens the firm’s market power. The suggested changes are shown in Figs. 5(A) and (B). The responses of the port operators in Hong Kong to this unfolding trend is to increase their market power through collaboration. As shown in Fig. 5(C), co-operation between two firms through joint venture enhances the competitiveness and market power of the firm.

Table 5 shows various ways of forming co-operative units, ranging from the lowest to the highest extent of inter-organisational dependence. The benefit/cost framework proposed by Contractor and Lorange (1988b) can be used for choosing between these co-operative arrangements. The major players of container port operation in the Chinese market have chosen equity joint venture as their strategic tool in formulating co-operative strategies. As Shepherd (1979) suggested, many joint ventures have been created by competing firms, thereby coalescing interests and inhibiting competition. As Hong Kong and Shenzhen are both important ports for the Chinese market, a co-operative strategy will offer a mutually beneficial opportunity for these ports to reshape their positions in the industry. Moreover, co-ordination through joint venture yields flexibility in responding to competitors, by enabling the firm to differentially respond across different regions (Porter, 1986). In addition, Starr (1991) confirms that joint ventures can provide access to power without losing the flexibility and speed required to become a global competitor. Therefore, a joint venture is an appropriate strategic form for the port operators in Hong Kong to enter the new markets of the Chinese mainland.

5. Three scenarios

In simple terms, port competition refers to commercial port rivalries and to the competitive efforts these rivalries induce (Fleming, 1997). South China needs additional ports; these ports will stimulate economic growth, which is good for the Chinese economy and, to some extent, good for Hong Kong as well. The additional container traffic in this area will increase the opportunity for additional shipping calls at Hong Kong and enhance maritime support services. Wong and Beresford (1996b) stress that any additional spur to competition can be good for the Hong Kong – more competition will improve the standard of services provided.
Relative to the port of Hong Kong, however, Yantian port enjoys two major advantages for cargoes originating in or bound for South China (Cheng and Wong, 1997, p. 64):
- shorter trucking time due to not having to cross the Shenzhen–Hong Kong border; and
- lower tariffs – the factory-to-ship costs incurred by shippers are lower when using these ports than when using the port of Hong Kong.

The above relative advantages are even enforced by recent transportation trends in the regions in terms of route choices of cargoes. Fig. 6 illustrates that the highest annual growth rate in 1999 – 56% compared with the previous year – is of land transport modes between power houses in the PRD region and their local container ports in Shenzhen. In contrast, the annual growth rate of truck transport between the PRD region and Hong Kong dropped to 44% in 1999.

The port of Yantian has, however, an equal disadvantage in that much of the region’s industrial output is created in the western PRD region. The Port Development Board (1995) points out that, as Hong Kong is well connected with the PRD by river, and Yantian is not, the river trade represents a major advantage to Hong Kong in competition with Yantian. The growth of the river transport between the two areas continues to experience marginal increases.

At present, however, port planning in Hong Kong cannot be implemented without taking into account Chinese issues (Tupper, 1998). While Hong Kong tries to remain the global and regional hub port for South China in the future, it is also important that Hong Kong recognises the importance of regular contacts and cooperation with the Shenzhen Port Authority through information exchange on port development strategies, and understand what facilities are required to optimally provide for the needs of its customers in the region.

Turning to the area in question, Fung (1995) establishes a long-term strategic plan called the ‘Territorial Development Strategy (TDS)’ using a scenario approach. Table 6 shows a framework applicable to the port industry in Hong Kong and South China under this scenario.

With economic trends and visions, Table 6 indicates two development scenarios postulated for the formulation of the TDS development options. Scenario A assumes the PRD region as Hong Kong’s primary economic hinterland. Two sub-scenarios have been developed under Scenario A: that is, steady growth and high growth. On the other hand, Scenario B includes both the PRD and the inner provinces in China as Hong Kong’s economic hinterland.

Scenario AI assumes a partnership relationship between Hong Kong and the PRD in their development, Hong Kong retaining its traditional role as an entrepôt but likely to experience a slower rate of growth. Higher growth under Scenario A (AII) assumes that Hong Kong will be the primary centre of development of the PRD, being the key trading outlet, service and financing centre for the region. Finally, extra high growth under Scenario B assumes that Hong Kong’s influence will reach the inner provinces of China. These two scenarios are not mutually exclusive. Scenario B can be regarded as the long-term logical extension of Scenario A.

It can be said that the current economic situation in the area falls into Scenario AI – a slow and steady recovery period out of the financial crisis. Hence, a form of partnership or collaboration between the two parties is likely to be inevitable.
6. Concluding remarks

This paper can conclude by stating the rationales for the current and prospective collaborating pattern within the container ports of the region. In general, organisations that involve co-operation can achieve at least seven more-or-less overlapping objectives, which are risk reduction, economies of scale, rationalisation, technology exchanges, co-opting or blocking competition, overcoming government-mandated trade or investment barriers, facilitating the initial international expansion of inexperienced firms, and vertical quasi-integrated advantages of linking the complementary contributions of the partners in a value chain (Contractor and Lange, 1988a). The objective of co-opting or blocking competition is particularly true for the current situation of the container ports in Hong Kong and South China. Potential competition can be co-opted by forming a strategic alliance with the competitor, a way of ‘collaborating to compete’ (i.e., co-opetition). Furthermore, a co-opetitive alliance can strengthen both partners against outsiders even as it may weaken one partner against the other (Hamel et al., 1989).

The Hutchison Port Holdings Group realises that the port of Yantian is a major competitor against the port of Hong Kong. In order to avoid the severe rivalry between the ports, the Hutchison Port Holdings Group decided to invest in Yantian for collaboration. The ports can co-operate in a win–win strategy against outsiders, like MTL, rather than compete against each other in a win–lose strategy. MTL also realises that the South Chinese port is threatening the competitiveness of the port of Hong Kong. Consequently, MTL has invested in Chiwan and gained the management contract for Shekou in order to form co-opetitive alliances and block the competition. More importantly for MTL, the Hutchison Port Holdings Group has strengthened its market power through collaboration. In order to compete with the Hutchison Port Holdings Group, MTL must also strengthen its market power through some effective means.

A recent report (China Ports, 1999) estimates that less than 20% of China’s cargoes are containerised, compared with the global average of 45–50% (Containerisation International Yearbook, 1999), which reflects, on one hand, the potential for the growth of containerised cargoes in China and, on the other, the bottleneck of infrastructure for container transportation. Moreover, the demand for container transportation will increase tremendously after China’s entry into the WTO in the near future; the co-operative strategies between the ports of Hong Kong and South China will be extremely crucial in facing all these challenges.

Given the aforementioned discussion, it can be concluded that, as a result of the rapid integration between Hong Kong and South China in the last decade, a structural transformation has already unfolded in the territory’s economy. The mutual benefits have been enormous, but negative problems are equally visible. Therefore, important challenges lie ahead.

As far as the port industry is concerned, Hong Kong is at the moment handling a very large share of China’s external trade – the ‘China factor’ is undoubtedly the major driving force for the further development of the Hong Kong economy. China, however, is catching up fast as it begins the development of the economy’s infrastructure, including its port facilities.

The main concern is not the resulting form of the integrated port system, but the process of its formation. The possible evolution of the regional container transport system can be regarded as a logistics approach (Wang, 1997; Wang and Slack, 2000) which focuses on the importance of ‘soft integration’ rather than hardware consolidation. Hong Kong people should focus on getting the best out of combining the territory’s expertise with the huge market and resources of the Chinese mainland.

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