

For discussion on  
26 March 2001

**LegCo Panel on Economic Services**

**PORT DEVELOPMENT AND  
THE CONTAINER FREIGHT INDUSTRY**

Following the discussion by Members on the item “Port development and competition in the container freight industry” at the meeting of the LegCo ES Panel held on 26 February, Members requested further information from the Administration.

2. The requested information is presented in the following 8 notes:
  - I. Major components of terminal handling charges and the container freight industry
  - II. Setting of terminal handling charges and mid-stream fee
  - III. Cost comparison of shipping ex Hong Kong versus ex Shenzhen
  - IV. Competition in the container freight industry
  - V. Port facility
  - VI. Cargo demand of Hong Kong port
  - VII. Container throughput and ocean freight of major container ports
  - VIII. Land grant conditions of container related facilities

Economic Services Bureau  
21 March 2001

## **I. Major Components of Terminal Handling Charges and the Container Freight Industry**

Terminal handling charges (THC) are charges collected by shipping lines to recover from the shippers the cost of paying the container terminals or mid stream operators for the loading and unloading of the containers, and other related costs borne by the shipping lines. For containers shipped on FOB (Free-on-board) terms, the shippers are responsible for paying the THC from the point of outgoing, while the buyers (consignees) are responsible for paying the freight rate and the THC (or equivalent) on the port of destination. The charges are recommended by international liner conferences or “agreements”. Liner conferences and “agreements” are formed amongst shipping lines securing major trading routes. Their objective is to stabilise freight rates and agree on THC and other charges.

2. Shipping lines used to charge a single rate to cover all shipping and terminal handling and related charges before 1990. Since 1990, most shipping lines have introduced separate charges for the freight rate and THC. Based on the information passed to the HKSC by the TSA and FEFC, the major components of THC covered by the Transpacific Stabilization Agreement (TSA) and Far Eastern Freight Conference (FEFC) are summarised at Annex A.

3. For a typical export shipment to be transported by ocean vessel, the exporter (or shipper) has to transport the cargo from the cargo origin (i.e. factory or warehouse) to the terminal where the cargo is loaded onto the ocean vessel for onward shipment to the destination as specified by overseas importer (consignee).

4. A flow chart setting out the transport process and different costs charged at each stage is at **Annex B**. Prices are set on a commercial basis by players according to the market situation.

Economic Services Bureau  
21 March 2001

Annex A

**Major Components of THC in Transpacific Stabilization Agreement**

1. Gate In - for the loaded container
2. Gate Out – for the release of the empty
3. Storage charges
4. Loading cost – including lift on and movement to the crane
5. Overtime / Extra Charges
6. Administrative and General Expenses

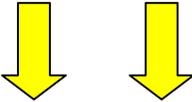
## Major Components of THC in Far Eastern Freight Conference

<u>A</u>	<b>General Cargo Containers – Export</b>
01	Delivering empty container and receiving full container. At the terminal, and clerical work and reporting associated with delivering and receiving.
02	Inspection and reporting condition of container and completion of interchange receipt.
03	Inspection and reporting of seals and wiring including removal of invalid labels and resealing as appropriate.
04	Movement of container on/from chassis, barge or rail car.
05	Internal transport of container from/to/from stack.
06	Handling container out off/into/out off stack.
07	Reporting of chassis, barge and railcar activities in/out of the terminal.
08	Storage of full container within the time limits defined in the conference tariff.
09	Take laden box out of stack.
10	Internal transport of container from stacking area to ship's side under book.
11	Move of container from ship's side under hook to ship's rail.
12	Move of container from ship's rail into ship's cell (including ship's hold or deck).
13	Opening and closing of hatch covers including unsecuring and securing, and movement of hatch-covers from bay to bay or to quayside.
14	Lashing of container.
15	Wharfage charges and quay dues etc. where related to cargo.
16	Physical and clerical terminal planning plus reporting of container activities into vessel. Including damage reporting and inspection of seals, wiring and labels.
17	Overtime or public holiday extra working costs.
<b>B</b>	<b>Temperature controlled containers</b>
	<i>The following elements are additional to GP containers and can either be incorporated into the GP costs to produce an average THC or can be used to justify a higher THC for temperature controlled cargo.</i>
18	Pre-trip container inspection.
19	Connecting of container cables, clip-on units and/or generating sets.
20	Electric power supply liquid nitrogen etc.
21	Monitoring of temperatures.
22	Administration including reporting of defective units and reporting equipment into/out of terminal.
23	Temperature controlled container costs in excess of GP items 8, 9, 10, 11 and 12.

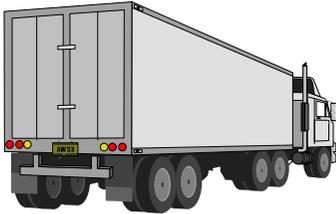
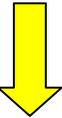
24	Temperature controlled container costs in excess of GP items 13 to 18.
<b>C</b>	<b>Non-standard ISO containers</b>
	<i>The following element is additional to GP containers and can either be incorporated into the GP costs to produce an average THC, or can be used to justify a higher THC for special containers</i>
25	For loading overweight or other non-standard containers involving the use of special spreaders or equipment.
<b>D</b>	<u>Dangerous goods</u>
	<i>The following element is additional to GP containers and can either be incorporated into the GP costs to produce an average THC, or can be used to justify a higher THC for containers carrying dangerous cargo.</i>
26	Additional physical and administrative costs associated with the handling of dangerous goods (IMO) at terminals.
<b>E</b>	<b>Uncontainerisable cargo and non-ISO containers</b>
Note	Physical and administrative costs associated with the handling of non-ISO containers or uncontainerisable cargo will be charged separately to a THC
N.B.	Items 1 to 11 and 15 for account of the cargo Items 12 to 14 for account of the ship Items 16 and 17 to be equally divided



**Exporters / Importers**



**Local Trucking Fee**



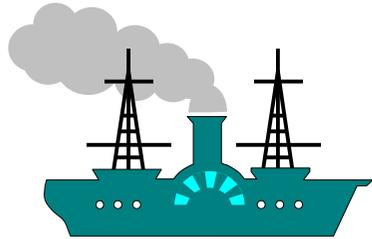
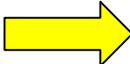
**Truckers**



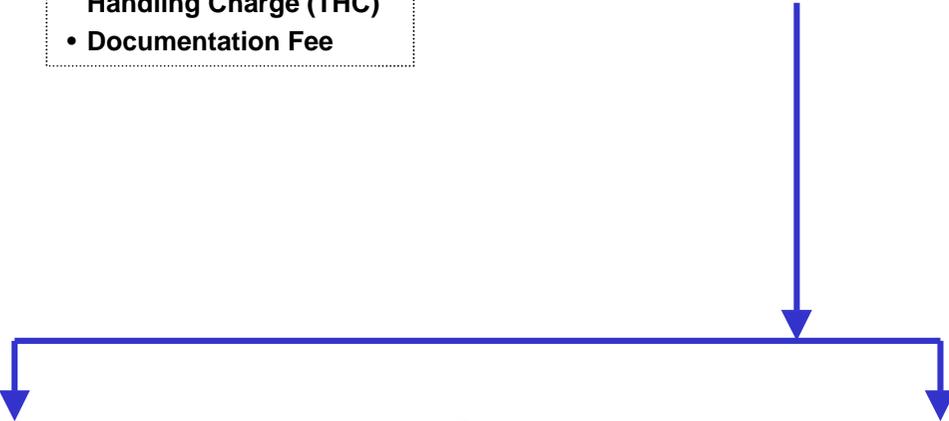
**HK\$ FEES**



- Hong Kong Terminal Handling Charge (THC)
- Ocean freight
- Destination Terminal Handling Charge (THC)
- Documentation Fee



**Shipping lines**



**Fee for terminal services**



**Terminal fee at destination**



**Hong Kong Terminal**



**Sea Journey**



**Destination Terminal**

## II. Setting of Terminal Handling Charges and Mid-stream Fee

Terminal Handling Charges (THCs) recommended by the 3 major Conferences and Agreements for USA, Europe and Asia are set out in the table at the **Annex**. THC in Hong Kong is higher than other ports. The container terminal of Hong Kong is unique in the world in that it is fully funded (including the cost of land formation for the terminal), owned and managed by the private sector with no direct or indirect government involvement in investment and management. Therefore, the costings of the parties involved in the operation of the Hong Kong ports would be different from those of their counterparts elsewhere in the world.

2. In 1998, the Hong Kong Shippers' Council requested a 30% across-the-board reduction in THC levels. Following negotiation with the Hong Kong Shippers' Council, the Conferences have undertaken since May 1998, not to increase the level of THC provided there is no change in market conditions. In addition to providing a table of service components to the THC to the shippers, the liners have also agreed:

- (i) to increase the notification period for any rate changes from 30 days to 45 – 60 days. Recent freight rate changes were given 60 days in advance;
- (ii) that current THC levels are to remain unchanged until May 2001, when the issue will be further reviewed.

3. Recently the Hong Kong Mid-Stream Operators Association (HKMOA) announced the introduction of a HK\$40 mid-stream fee (MSF). During the past few months, the trade associations involved i.e. Hong Kong Shippers' Council, Hong Kong Liners Shipping Association and HKMOA held many meetings to discuss matters relating to the development of a mechanism for collection of the MSF. The discussion is still continuing.

4. As we understand from the HKMOA, since the mid-stream charge is

a new fee, the Association considers it necessary that a recommended fee should be proposed for reference by the members in determining their own charges. Individual mid-stream operators will, in light of their own circumstances, make their own commercial decisions as necessary. For other mid-stream operation tariffs, as we understand, the mid-stream operators will determine different tariffs on the basis of the facilities provided by individual operators and different requirements of individual shipping companies. Fee differentials in the industry may amount to HK\$100 or 20% per container.

Economic Services Bureau

March 2001

**Terminal Handling Charges in Major Asian Ports**  
*(based on the exchange rates as at 7 March 2001)*

	To USA <sup>1</sup>		To Europe <sup>2</sup>		Intra-Asia <sup>3</sup>	
	TEU	FEU	TEU	FEU	TEU	FEU
	(HK\$)	(HK\$)	(HK\$)	(HK\$)	(HK\$)	(HK\$)
Hong Kong	2,140	2,850	2,060	2,750	1,800	2,650
Shenzhen	1,100	2,100	1,100	2,100	N/A	N/A
Taiwan	1,050	1,360	1,150	1,450	1,150	1,450
Singapore	810	1,200	720	1,020	810	1,200
Japan	790	980	1,870	2,680	720	1,080
Indonesia	780	1,210	N/A	N/A	780	1,210
South Korea	630	850	620	840	630	850
Malaysia	610	920	480	710	610	920
Thailand	480	710	480	710	470	710
Shanghai	510	690	120	180	120	180
Philippines	360	470	270	340	450	590
Germany	N.A.	N.A.	1,110	1,110	N.A.	N.A.
Netherlands	N.A.	N.A.	1,000	1,000	N.A.	N.A.
U.K.	N.A.	N.A.	790	790	N.A.	N.A.

Source: Hong Kong Shippers' Council

Notes: 1 THC advised by the Transpacific Stabilization Agreement.

THC advised by the Far Eastern Freight Conference

**THC advised by the Intra-Asia Discussion Agreement**

**TEU Twenty-foot equivalent unit**

FEU Forty-foot equivalent unit

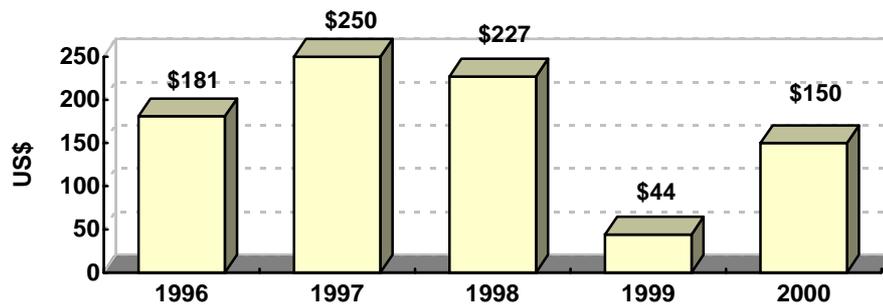
N/A Not Available

N.A. Not Applicable

### III. Cost Comparison of Shipping ex Hong Kong versus ex Shenzhen

The door-to-door cost different of shipping FOB Hong Kong versus FOB Shenzhen has narrowed down over the past years as shown in Chart 1.

Chart 1: Difference in Total Transportation Costs between ex HK and ex Shenzhen  
(Exporting a 40' Container from Dongguan to USA)



2. The reduction in the cost differential is mainly due to the decline in trucking cost (to HK) by some 30% from the peak level in 1995. For example, the trucking cost for bringing a 40' container from Dongguan to Kwai Chung Container Port has been reduced from more than HK\$5,000 since 1995 to the present level of around HK\$4,000.

3. For cargo from the western Pearl River Delta, barging to Hong Kong for export is the most cost-effective way of export as indicated in Table 2.

Table 2: Difference in Total Transportation Costs between ex HK and ex Shenzhen  
for Cargo from the West Pearl River Delta (as at mid 2000)

Export a 40' Container to USA	Ex Hong Kong (US\$)		Ex Shenzhen (US\$)	Cost difference between ex HK by barge & ex SZ by truck
	Via Truck	Via Barge	Via Truck	
Foshan	3,849	3,607	3,775	Save US\$168
Zhongshan	3,922	3,562	3,797	Save US\$235
Zhuhai	4,043	3,562	3,822	Save US\$260
Jiangmen	3,952	3,620	3,885	Save US\$265

4. The comparative cost analysis of shipping a 40' container from Dongguan via Yantian and via Hong Kong to the United States is given in Table 3.

Table 3: Cost of Shipping ex Hong Kong vs ex Shenzhen

	FOB Hong Kong (US\$)		FOB Shenzhen (US\$)	
	Paid by consignee	Paid by shipper	Paid by consignee	Paid by shipper
Truck to container terminal	----	516	----	209
Declaration fee	----	50	----	7
Documentation fee (per b/l)	----	14	----	14
Ocean freight rate (Basic)	1,810	----	2,110	----
Destination delivery charge	740	----	740	----
Fuel adjust factor	165	----	165	----
Origin receiving charge	----	269	----	269
Terminal handling charge	----	369	----	369
<b>Total</b>	<b>2715</b>	<b>949</b>	<b>3015</b>	<b>499</b>

*Source : Hong Kong Port Cargo Forecasts 2000/2001*

Economic Services Bureau  
March 2001

## IV. Competition in the Container Freight Industry

### **Introduction**

Users of the port of Hong Kong have a choice of using 3 different types of port operations: container terminal, mid-stream operation and river trade; and four main types of port services providers: ocean carriers, river barge operators, trucking companies, freight forwarding companies.

2. At present about 64% of the container cargoes are handled by container terminals, 17% by the mid-stream operators and 19% by the river trade. Competition in the container freight industry is very keen, as there are a number of players involved.

### **Port Facility Providers**

#### Container Terminals

3. Hong Kong has 4 container terminal companies operating 8 container terminals in Kwai Chung. As container terminal development involves huge investment, most countries only have one or very few players in the industry. The throughput in this sector has been increasing –

<u>Container Terminal Throughput (million TEU)</u>	
2000	11.6
1999	10.3
1998	9.6
1997	9.5
1996	8.7

#### Mid-Stream Operations

4. Compared to container terminal operators, mid-stream operators in general offers a relatively lower level of service but the charges they impose are cheaper. There are more than 20 mid-stream operators in the industry. According to industry sources, competition in the sector is keen. The sector has not been growing as shown by the following figures –

<u>Mid-Stream Throughput (million TEU)</u>	
2000	3.0
1999	2.8
1998	2.6
1997	3.2
1996	3.0

### River Trade

5. There are over 160 operators operating 185 berths in 8 Public Cargo Working Areas (PCWA) in Hong Kong. Together with the River Trade Terminal (RTT), these operators provide support services complementary to those of container terminals and mid-stream operators. They play a vital role in the handling of port cargo and facilitating river trade cargo movements between Hong Kong and the Pearl River Delta region. The throughput in this sector has been increasing –

<u>River Trade Throughput (million TEU)</u>	
2000	3.5
1999	3.1
1998	2.4
1997	1.9
1996	1.7

### Port Service Providers

#### Ocean Carriers

6. Presently, over 80 international shipping lines providing some 380 weekly container services to over 500 destinations in 170 countries in Hong Kong. This provides abundant choice to shippers and consignees for different routings of services. Shipping lines compete by price and service levels.

#### River Barge Operators

7. South China is the largest hinterland of our container throughput, about one third of the South China cargoes are transported to/from our port by

river barge.

8. Users of Hong Kong's port services providers have a wide variety of choices in river barge operators. It is estimated that there are over 160 barge companies providing over 320 daily feeder services linking 60 river ports and terminals in the Pearl River Delta in Hong Kong. Barge companies compete by price and offering different delivery packages.

#### Trucking Companies

9. About two third of our South China cargo is transported to and from our port by truck. Competition in the cross boundary container trucking business is keen and trucking fee is said to have gone down (up to 30% in some instances) since 1995. It is estimated that there are 2 800 container haulage companies with about 14 000 container trucks providing cross-boundary container services.

#### Freight Forwarding Companies

10. Competition in the freight forwarding industry is also very keen. It is estimated that there are some 2,700 freight forwarding companies in Hong Kong providing services to the shippers/consignees in the region.

Economic Services Bureau  
21 March 2001

## **V. Port Facilities**

### **Port Facilities : An Overview**

Hong Kong's container throughput in the past year reached 18.1 million TEUs, of which 64% were handled at the Kwai Chung Container Terminal, 17% by mid-stream operators and the remaining 19% by the river trade. Our port users have a choice of four different types of port facilities for handling containers, namely, container terminal, mid-stream facilities, river trade terminal and public cargo working areas. With the emergence of other ports in Southern China, the choice for port users in Southern China will become even wider. Our approach to planning for port facilities is to ensure that there will be sufficient facilities to meet future demand and that they remain competitive.

### **Shipping Alliances**

2. In line with the international shipping practice, worldwide shipping conferences, which are groups of shipping lines engaged on a particular route (such as Hong Kong to Europe) makes recommendations on the level of freight rates, terminal handling charges and other charges for the carriage of general cargoes and containers. Although in the past the conferences were able to set tariffs on freight rates and charges which are binding to all member shipping lines, this has now changed. It is understood that such level of charges represent merely the recommendations of the shipping conferences and individual shipping companies will set their own charges in the light of the specific conditions of their clients. The recent trend is for such conferences to be replaced by looser alliances termed Stabilization Agreements which formulates voluntary and non-binding rates, policies and programs. An example of such agreement is the Transpacific Stabilization Agreement. Although shipping conferences and agreements have their own agents in Hong Kong, they are based overseas.

### **Container Terminal Operations**

3. Because of the heavy investment involved in developing container terminals, the number of container terminal operators in most ports in the world is necessarily limited in number. At present, Hong Kong has a total of four container terminal operators and all of them are members of the Hong

Kong Container Terminal Operators Association. The Association represents the interests of container terminal operators and advises on all general aspects of port promotion and port development at various government consultative meetings. There is competition among its members and the charges collected by individual terminal operators may vary with the level and volume of services required by individual shipping alliances or shipping companies. As far as we know, the differential in charges may range from HK\$500 to HK\$1,200 per container depending on the requirements of individual shipping companies.

### **Mid-stream Operation**

4. At present, about 17% of the container cargoes in Hong Kong are handled by mid-stream operators. It is estimated that there are more than 20 operators in the trade and about 11 of them are major players. Most of them are members of the Hong Kong Cargo Vessel Traders Association and many are also members of the Cargo Working Areas Association and the Hong Kong Mid-Stream Operators Association (HKMOA). The mid-stream operators also use berths at the River Trade Terminal at Tuen Mun and the Kwai Chung Container Terminals. There is a wide choice of operation modes and barge operating companies in this highly competitive market.

5. The HKMOA is the major association in the trade and 8 of its members hold about 13.5% and 80% market shares respectively of the overall container freight and mid-stream industries. Recently the HKMOA announced the introduction of a HK\$40 mid-stream fee (MSF). During the past few months, the trade associations involved i.e. Hong Kong Shippers' Council, Hong Kong Liners Shipping Association and HKMOA held many meetings to discuss matters relating to the development of a mechanism for collection of the MSF. The discussion is still continuing.

6. The port of Hong Kong is an open port, investment in ports and terminal operations are made solely on commercial judgement. The introduction or modification of charges for port operations operated by the private sector are solely based on commercial decisions.

## **VI. Cargo Demand of Hong Kong Port**

A comprehensive assessment of future container throughput of Hong Kong port, known as Port Cargo Forecasts (2000/2001) was undertaken in 2000.

2. Key indications from the forecast show that:

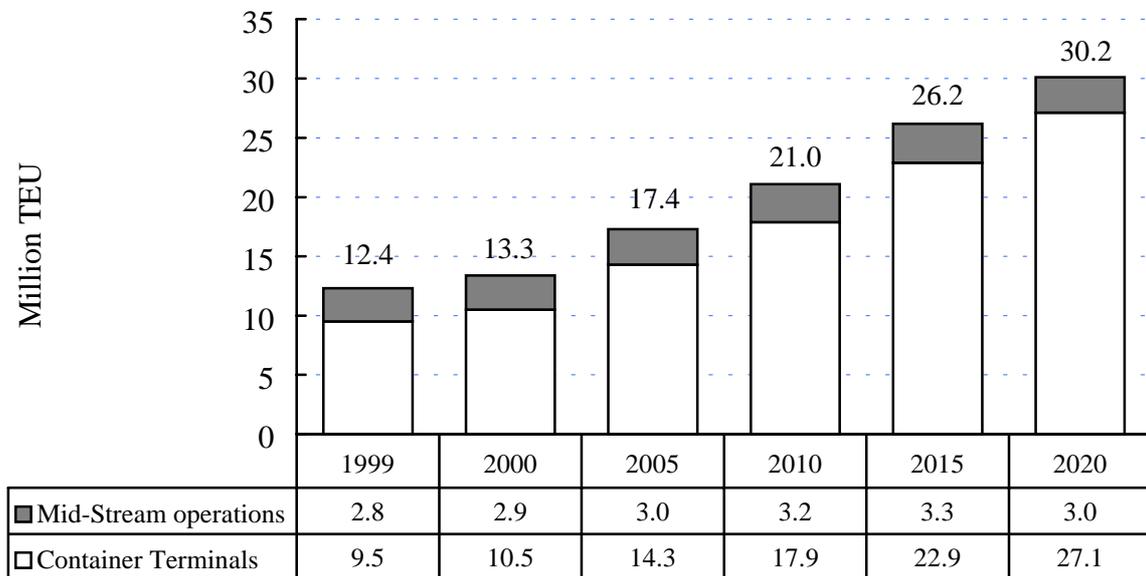
- (a) the total container throughput of Hong Kong port over the last five years has sustained an annual growth of 6.6%;
- (b) cargo demand for Hong Kong in the next fifteen years would grow at an annual rate of 5.1%
- (c) The cargo base of the Pearl River Delta, which is the main cargo catchment area of Hong Kong port, is expected to continue to grow at a high rate fuelled by an expected general increase in world trade and increase in foreign direct investment generated by China's accession to the WTO, leading to increased imports and exports from China, especially for the Guangdong province.
- (d) However, due to the development and expansion of the northern Mainland ports, the possible development of direct trade between Taiwan and the Mainland and increasing competition from the Shenzhen ports, these factors will divert some of the cargoes that might otherwise flow through the port of Hong Kong.

3. The Study has concluded that cargo from Southern China will grow sufficiently fast to support the planned expansion of ports in the region, including Hong Kong and Shenzhen. The port throughput of Hong Kong is expected to grow from the base figure of 18 million TEU (for 2000) to 30 million TEU in 2010 and 40 million TEU in 2020.

**Projected Ocean Throughput Analysed by Container Terminals and Mid-stream Operation**

4. It is expected that the growth of mid-stream operations will be less than the port as a whole and the future split between the container terminals and mid-stream operations is likely to shift in favour of the container terminals. (*Figure 1*) It is estimated that the ocean throughput generated at KC terminals and mid-stream amount to 17.4 million TEU by 2005 and 21 million TEU by 2010.

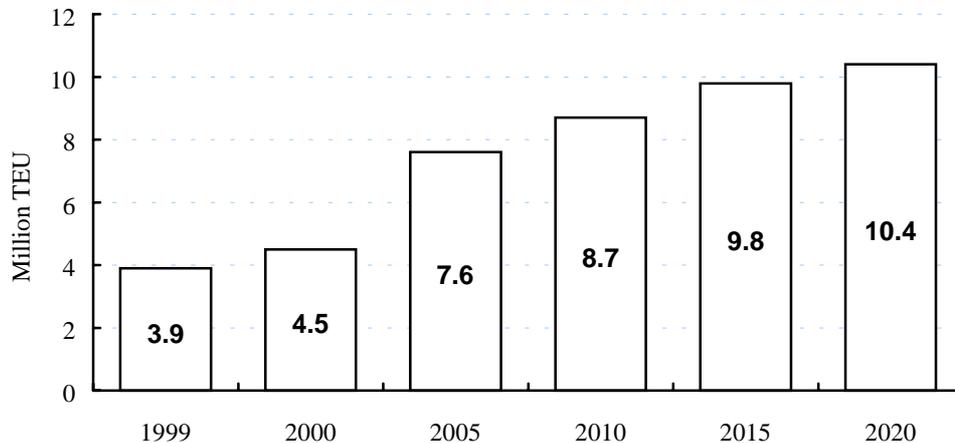
**Figure 1 - Forecast Ocean Container Throughput**



**Projected Container Throughput by River Trade Facilities**

5. The Port Cargo Forecasts indicated that the river trade container throughput would continue its strong growth in 2000-2005 (11% p.a.). The river container throughputs will amount to 7.6 million TEU by 2005, 8.7 million TEU by 2010 and 10.4 million TEU by 2020 (*Figure 2*).

**Figure 2 - Forecast River Container Throughput**



### **Demand for Cargo Handling Infrastructure**

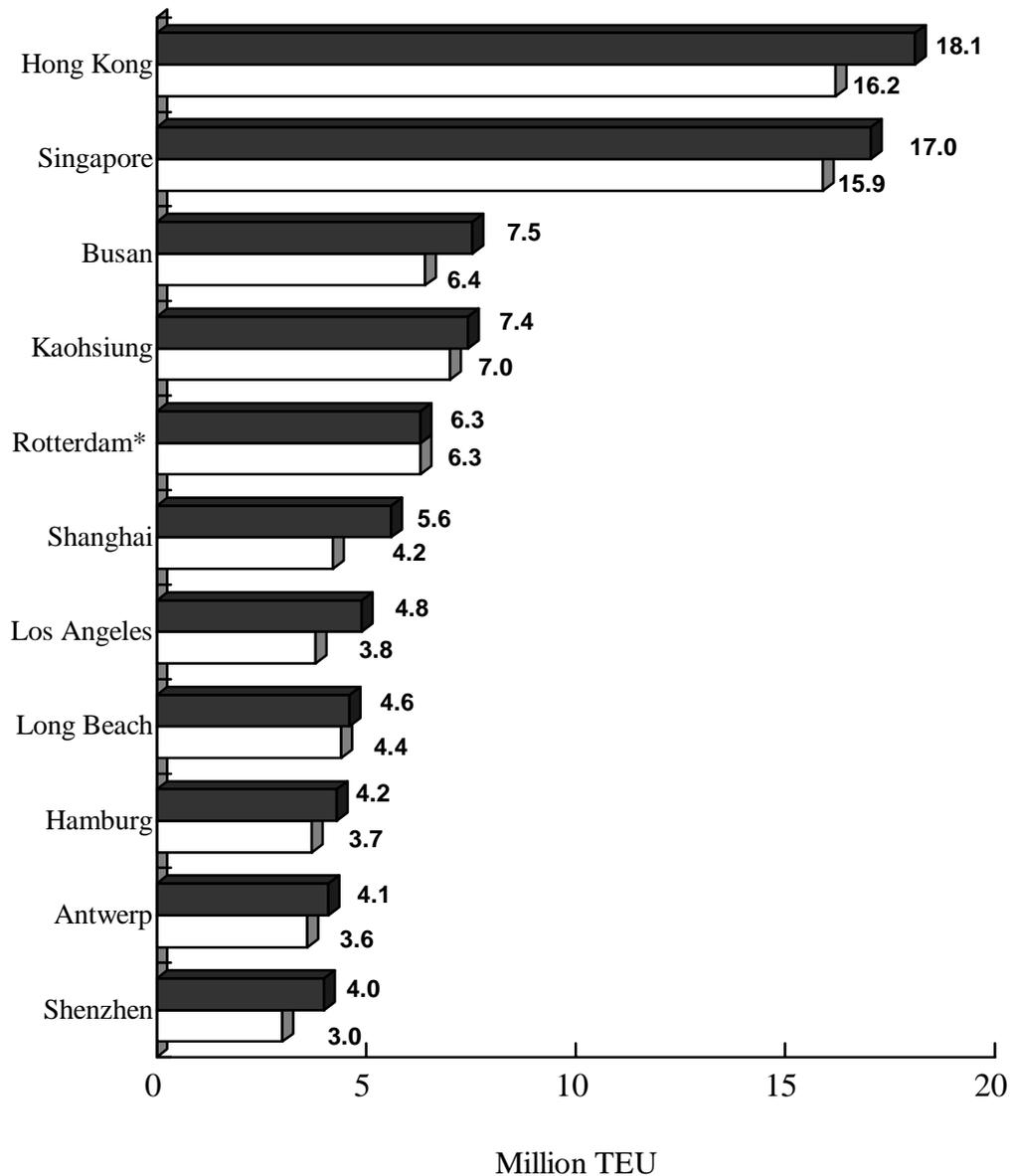
6. To cope with the expected growth in demand in the coming years the construction of CT9 commenced in the summer of 2000. When fully completed by 2004, it will provide 6 new berths with an additional capacity of at least 2.6 million TEUs to support the growth of the port of Hong Kong.

7. Given the current projection in the updated Port Cargo Forecasts the additional facilities provided by CT9 will enable Hong Kong to cope with the Cargo growth over the next few years. The issue of the need for new container terminal facilities and timing for i.e. are being reviewed in a separate update exercise on Port Development Strategy Review, which has begun and is scheduled for completion in mid 2001.

Economic Services Bureau  
21 March 2001

## VII. Container Throughput and Ocean Freight of Major Container Ports

The following chart displays the overall throughputs of the top ten container ports and Shenzhen in 2000. Hong Kong remained as the busiest container port in the world in the past two years.



*Note:* \* Provisional figures

**Source:** Containerisation International

2. A comparison table showing the ocean freight rate from various

major ports is given as follows<sup>1</sup>.

Ports / Regions	Per 40' container (US\$)		
	New York, U.S.A.	Los Angeles / Long Beach, U.S.A.	Hamburg, Germany
Hong Kong	\$4,000	\$3,500	\$2,500
Shenzhen	\$4,200*	\$3,700*	\$2,700
Kaoshiung	\$4,000	\$3,500	n.a.
Singapore	\$4,350	\$3,850	n.a.
Shanghai	\$4,000	\$4,000	n.a.
Busan	\$4,000	\$3,500	n.a.

Notes: n.a. - Not available.

\* - This covers US\$200 arbitrary charges for shipment through Shenzhen ports

Economic Services Bureau

21 March 2001

---

<sup>1</sup> The following points should be noted :

- The freight rates at various ports are not strictly comparable as the physical distance between the ports and the destinations are different.
- The freight rates quoted in this note are for reference only. The actual freight rates vary for different shippers as according to their contractual agreement between the shipping lines and individual shipper / consignee.
- The actual freight rates also depend on the types of commodity to be transported. The rates quoted in this note are assumed that a 40' container of garments is to be shipped.

## **VIII. Land Grant Conditions of Container Related Facilities**

The land grant conditions in respect of container terminals, mid-stream sites and other container back-up sites are as follows :

- (a) For Container Terminal (CT), there are conditions in individual leases requiring the grantees to carry out specific works on site or the provision of certain facilities such as screening structures and watchman accommodation, but these are engineering conditions. There are no provision for regulating pricing of services provided by the operators.
- (b) For Mid-stream Sites (MSSs), with the exception of the two permanent sites in Stonecutters Island, most of them are either private wharfs or sites let out under Short-Term Tenancy (STT). The lease conditions do not contain any clause which allows the Government to impose regulation on pricing of mid-stream service.
- (c) In terms of container back-up sites, there are more than 400 sites all over the Territory. Many of these sites are let out under STT. Again, the lease conditions do not contain any clause which allows the Government to impose regulation on pricing.