

Appendix I

HK's Guangdong-related exports are first estimated from HK's Mainland-related exports. HK's PRD-related exports are then estimated from HK's Guangdong-related exports.

1. Commodity Trade with Guangdong

HK has statistics on its trade with the Mainland as a whole, but not with Guangdong. While Guangdong has statistics on its trade with HK, the data is not useful as Guangdong's trade with HK itself is mixed up with Guangdong's trade with third regions via HK.

It is known that the share of Guangdong's trade handled by HK, abbreviated S, has decreased from 95% in 1995 to 60% in 2002. The ratio has decreased by 35 percentage points in seven years, or an average of 5 percentage point each year. This study assumes that S decreases in a linear fashion, by 5 percentage point each year.

We assume that the share of Guangdong's exports handled by HK is the same as the share of Guangdong's imports handled by HK, which is equal to S. We take HK's exports to Guangdong to be Guangdong's imports from HK, ignoring the costs of insurance and freight between HK and Guangdong. Such costs are known to be small, around 1% of the value to the trade (Sung 1998: 68). We have:

$$\text{HK's exports to Guangdong} = \text{Guangdong's total imports} \times S, \text{ and}$$

$$\text{HK's imports from Guangdong} = \text{Guangdong's total exports} \times S.$$

Next, we need to disaggregate HK's exports to Guangdong into domestic exports and re-exports. From surveys of HK's Census and Statistics Department on HK's OP (outward processing) trade with the Mainland, we know that over 70% of HK's domestic exports to the Mainland involves OP, and the ratio (abbreviated ROP) of OP trade with Guangdong to that with the Mainland is well over 90%. HK's domestic exports to Guangdong are by definition the sum of domestic exports involving OP and those not involving OP. We have:

$$\text{HK's OP domestic exports to Guangdong} = \text{HK's OP domestic exports to Mainland} \times \text{ROP}$$

HK's non-OP domestic exports to Guangdong = 1/2 x HK's non-OP domestic exports to Mainland (Guangdong's share in non-OP domestic exports is assumed to be as high as one-half as it is the richest regional economy in China and it is just adjacent to Hong Kong).

$$\text{HK's re-exports to Guangdong} = \text{HK's exports to Guangdong} - \text{HK's domestic exports to Guangdong}$$

We also need to disaggregate HK's imports from Guangdong into retained imports and imports for re-exports. As HK's imports from the Mainland are dominated by that with Guangdong, we assume that the share of retained imports in total imports from Guangdong is the same as the share of retained imports in total imports from the Mainland. Once retained imports from Guangdong are estimated, imports from Guangdong for re-exports are obtained as a residual. The latter plus the re-export margin gives HK's re-exports of Guangdong origin.

2. Guangdong-related services exports

Exports of Travel services to Guangdong are taken to be 80% of HK's exports of travel services to the Mainland. The figure is an estimate of the Guangdong government (Enright 2003: 61). The share of the other items of HK's Guangdong-related services exports in Mainland-related services exports is taken to be the same as the share of HK's Guangdong-related re-exports in Mainland-related re-exports,¹ i.e., services exports are closely correlated with entrepot trade.

3. Commodity trade with PRD

The share of PRD's trade in Guangdong's trade, abbreviated ST, ranged from 74% to 79% in the period from 1995 to 2002. The share of PRD exports in Guangdong's exports is abbreviated SX, and the share of PRD imports in Guangdong's imports is abbreviated SM. We have:

HK's domestic exports to PRD = HK's domestic exports to Guangdong x SM,

HK's re-exports to PRD = HK's re-exports to Guangdong x SM, and

HK's domestic exports of PRD origin = HK's re-exports of Guangdong origin x SX

4. PRD-related services exports

As HK's PRD-related services exports should be closely correlated with HK's PRD-related entrepot trade, the share of HK's PRD-related services exports in Guangdong-related services exports is taken to be ST.

¹ From 1995 to 2002, the share ranged from 74% to 79%.

Appendix II. Aggregation of Industries based on Industrial Classification 1980

New Group No	Aggregation	Old Group No	Description
1	Primary Sector	70	Agriculture & fishery
		71	Mining & Quarrying
2	Manufacturing	1-6	Food, Beverage & Tobacco
		7-11	Wearing Apparel
		12-23	Textiles, Leather & Footwear
		24-30	Wood, Furniture & Paper
		31-40	Chemicals, Rubber & Plastics
		41-43	Non-metallic Mineral Products
		44-49	Basic Metal & Metal Products
		50-64	Machinery & Equipment
		65-69	Other Manufacturing Industries
3	Power & Water	72	Electricity & Gas
		73	Water
4	Construction	74	Construction
5	Retail Trade	76	Retail Trade
6	Foreign Trade	77	Import / Export Trade
7	Restaurants	78	Restaurants
8	Hotels	79	Hotels
9	Foreign Transport	80	Ocean Transport
		81	Air Transport
10	Finance/Insurance	85	Finance
		86	Insurance
11	Other Services	75	Wholesale Trade
		82	Local Transport
		83	Communication
		84	Storage
		87	Real Estate Development
		88	Business Service
		89	Social Service
		90	Rental

Appendix III . 1980 Input-Output Table

	Primary Sector	Manufacturing	Power & Water	Construction	Retail Trade	For-trade	Restaurant	Hotel	For-transport	Fin./Insurance	Other Services
Primary Sector	0.0079	0.0029	0.0012	0.0176	0.0000	0.0000	0.0044	0.0041	0.0000	0.0000	0.0004
Manufacturing	0.0754	0.2151	0.0040	0.0710	0.0085	0.0060	0.1155	0.0564	0.0066	0.0202	0.0161
Power & Water	0.0569	0.0091	0.0199	0.0041	0.0285	0.0033	0.0351	0.0440	0.0019	0.0069	0.0128
Construction	0.0006	0.0026	0.0142	0.1793	0.0053	0.0036	0.0025	0.0227	0.0018	0.0022	0.0134
Retal Trade	0.0000	0.0000	0.0011	0.0000	0.0402	0.0000	0.0000	0.0000	0.0000	0.0029	0.0041
For-Trade	0.0094	0.0342	0.0002	0.0000	0.0010	0.0926	0.0000	0.0000	0.0002	0.0002	0.0029
Restaurant	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0090	0.0000	0.0000	0.0000	0.0000
Hotel	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0066	0.0000	0.0000	0.0000
For-transport	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5287	0.0014	0.0034
Fin./Insurance	0.0004	0.0033	0.0143	0.0047	0.0083	0.0304	0.0012	0.0028	0.0057	0.0430	0.0228
Other Services	0.0723	0.0832	0.0234	0.0753	0.1669	0.2509	0.0999	0.1634	0.0811	0.1619	0.1106
Total Inter											
Inputs	0.2229	0.3504	0.0783	0.3519	0.2586	0.3868	0.2676	0.2999	0.6260	0.2386	0.1866
Wages	0.1035	0.1913	0.1290	0.3721	0.2609	0.1946	0.2677	0.2062	0.1393	0.2502	0.2563
Depreciation	0.0381	0.0200	0.0912	0.0184	0.0294	0.0184	0.0276	0.0487	0.0481	0.0217	0.1111
Profit	0.3145	0.0614	0.1335	0.0942	0.3271	0.3893	0.0507	0.3266	0.0747	0.4807	0.4084
Value added	0.4560	0.2728	0.3537	0.4847	0.6175	0.6023	0.3460	0.5815	0.2622	0.7526	0.7758
Imports	0.3211	0.3768	0.5681	0.1634	0.1239	0.0109	0.3865	0.1186	0.1118	0.0087	0.0376
Total Supplies	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000