

6.F

ATC Export Tax Equivalents

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16.F.1 Introduction

Under the Agreement on Textiles and Clothing (*ATC*), certain industrialized countries impose quotas on imports of textiles and clothing from many less developed economies. In the GTAP data base, we represent these barriers to trade by reporting their money value; but we calculate the money value of the tax by multiplying the value of trade derived from the trade data base (chapter 15) by an *ad valorem* tax equivalent rate. Hence we need estimates of the export tax equivalents of the quota rents.

16.F.2 Methodology

The estimates of ATC quota rents (and hence of the corresponding export tax equivalent rates) are based on Francois and Spinanger's (2000) estimates. The basic methodology employed involved detailed calculations for Hong Kong and mainland China, based on quota prices, industry interviews, and confidential industry data. The estimates were extended to the other GTAP countries, taking the GTAP version 4 estimates as a starting point, with adjustments reflecting recent evolution in values

and volumes, along with trade and interview data and confidential firm data collected as part of the study.

The calculations for Hong Kong are based on data summarized in tables 16.F.1 and 16.F.2. The method applied is as follows:

- Quota prices in Hong Kong dollars per dozen (columns 1-3) for the available textile and clothing categories (as taken from unpublished data from the Federation of Hong Kong Garment Manufacturers) are converted into US dollars (and for exports into the United States, into square meters in columns 4-5 of table 16.F.1) at prevailing exchange rates.
- Unit values for the individual categories are calculated in US dollars using the available data from the Office of Textiles and Apparel (*OTEXA*) for the United States (i.e. value of imports in US dollars divided by area in square meters in columns 6-7) or a special aggregation of value divided by volume at the 8 digit level of HS categories from Eurostat for each of the individual textile and clothing categories (in columns 7-9).
- From these unit values the quota prices are subtracted to come up with a net unit value exclusive of quota prices.
- The quota prices are then divided by the net unit value to determine what the quota rents are as percentages of unit values (columns 8-9 for the United States and 7-9 for the European Union).
- For information purposes, quota utilization rates are included in columns 10 to 12.
- To calculate an overall quota rent, first the necessary weights need to be determined using the dollar shares (columns 14-15) and the volume shares (columns 17-18) of the listed categories in total imports. In the case of the United States, around 31 per cent is covered; in the case of the European Union, around 75 per cent is covered.
- Using these weights together with the quota rents and adjusting for the amount of imports not covered (see re-based to 100 per cent in “quota rent” column) overall quota rent figures are produced. These range from 13.0 to 16.8 per cent for the United States and from 6.2 to 7.5 per cent for the European Union.
- The above mentioned values are then adjusted downward to reflect quota prices for non-listed items.¹ This leaves us with quota rents for textile/clothing products accordingly at 1 to 10 per cent for the United States and 1 to 5 per cent for the European Union vis-à-vis Hong Kong.
- For China, numerous company interviews substantiate the fact that quota prices for China have increased noticeably since 1995. This is reflected in recent increases in quota rates for textile

¹ Given that quota prices are only listed for those items in hot demand, it is only logical that the remaining products under quota are subject to lower prices and—in light of much lower quota utilization—probably even zero prices.

and clothing exports from China, and levels approaching 200 to 300 per cent higher than Hong Kong rates for exports to the United States and 100 to 200 per cent higher than Hong Kong rates for exports to the European Union. On this basis, quota rents for China's exports of textile and clothing products to the United States are set equal to 20 to 30 per cent of export values (pre-quota rent values); for exports to the European Union, at 12 to 15 per cent.

- The rates for all other countries, based on interviews, confidential documents, World Bank information, and relative export demand trends, generally involve increases from earlier, 1995 estimates, as specified in the GTAP 4 data base. This growth in quota rents follows from two phenomena — economic growth in the major import markets, which has been fueling import demand, and underlying growth combined with the recent recession in major export markets, which has been fueling supply.

For extending these estimates to the full GTAP data base, the estimated U.S. quota markup rates were also applied to Canadian trade, on the assumption that trade restrictions are similar, while the EU quota rates were applied to EFTA, that is, Iceland, Liechtenstein, Norway and Switzerland (although they probably should not have been applied to Switzerland, and should have been applied to Turkey).

References

Francois, J.F. and D. Spinanger. 2000. *Hong Kong's Textile and Clothing Industry: The Impact of Quotas, the UR and China's WTO Accession*. Kiel Institute of World Economics.

Table 16.F.1 Hong Kong Quota Prices/Utilization and Rents for Textile and Clothing Trade with the United States: 1989, 1998-99

US: T&C Categories	Quota Prices					Unit Values		Quota Rents	
	HK\$/doz			US\$/m ²		US\$/m ²		%	
	1989	1998	1999	1998	1999	1998	1999	1998	1999
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
338,339- tanktops,tops,knit, cot.	25.1	24.8	53.2	53.2	0.53	1.14	6.24	5.98	9.28
340 - shirts not knit, cot.	67.4	106.3	89.5	89.5	0.68	0.58	5.34	5.55	14.59
345 - sweaters, cot.	453.3	320.1	215.3	215.3	1.34	0.90	5.94	5.30	29.13
350 - dress. gowns, robes, etc, cot.	—	21.6	153.5	153.5	0.07	0.47	2.06	1.98	3.52
351 - pjs, nightwear etc., cot.	88.1	46.5	143.5	143.5	0.14	0.43	1.83	1.77	8.28
352 - underwear, cot.	12.7	3.9	—	—	0.06	—	1.69	1.74	3.68
438 - knit shirts, blouses, wool	14.3	348.2	234.8	234.8	3.59	2.42	15.32	15.14	30.61
638/639 - knit shirts, blouses, mmf	22.5	113.7	125.8	125.8	0.98	1.08	6.00	6.72	19.52
647 - trsers, slcks, shts.,MB, mmf	—	64.5	78.4	78.4	0.56	0.68	4.24	5.53	15.22
648 - trsers, slcks, shts, WG, mmf	78.8	52.1	48.8	48.8	0.45	0.42	4.36	4.99	11.51
								Weighted with columns:	
								(14) 5.09	(15) 5.01
								(17) 4.08	(18) 4.75
								Re-based to 100%	
								16.78	16.52
								13.04	15.28
US: T&C Categories	Quota Utilization			% of HK-US Trade					Conversion
	%			US \$		Volume			Factor
	1989	1998	1999	1989	1998	1999	1989	1998	1999
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
338,339- tanktops,tops,knit, cot.	105.6	104.3	105.8		2.58	2.55	1.18	1.29	1.30
340 - shirts not knit, cot.	105.0	103.3	105.5		7.02	6.38	5.01	5.55	5.41
345 - sweaters, cot.	107.3	102.6	104.5		1.76	1.64	1.16	1.38	1.37
350 - dress. gowns, robes, etc, cot.	70.0	104.7	105.1		0.28	0.27	0.32	0.58	0.58
351 - pjs, nightwear etc., cot.	106.1	107.7	108.7		2.21	2.13	4.68	5.29	5.22
352 - underwear, cot.	107.4	107.4	106.4		2.37	2.86	4.80	6.44	6.65
438 - knit shirts, blouses, wool	62.5	99.3	104.6		3.37	3.17	0.58	1.01	0.95
638/639 - knit shirts, blouses, mmf	107.0	103.5	106.3		8.72	8.78	6.61	7.32	7.09
647 - trsers, slcks, shts.,MB, mmf	100.6	107.4	104.3		0.78	0.98	0.58	0.80	0.85
648 - trsers, slcks, shts, WG, mmf	107.9	106.5	106.7		1.64	1.57	1.43	1.64	1.64
					Σ 30.34	30.33	26.35	31.30	31.08

Sources:

Cols. (1)-(3) Unpublished data from Federation of Hong Kong Garment Manufacturers.

Cols. (4)-(5) Re-based from columns (2) & (3) with OTEXA conversion factors in col (19) using prevailing HK\$/US\$ exchange rates.

Cols. (6)-(7) Calculated from OTEXA value and quantity data on web site (<http://otexa.ita.doc.gov>) for major shippers report.

Cols. (8)-(9) Based on ratio of quota prices in US\$/m² to unit values net of quota prices.

Cols. (10)-(12) Unpublished data of HK Trade Dept. on restrained textile exports to United States by US textile and clothing categories; licensed exports in % of restraint limit (quota).

Cols. (13)-(15) Calculated from above-mentioned OTEXA value data.

Cols. (16)-(18) Calculated from unpublished HKTD quantity data.

Col. (19) From OTEXA web site.

Table 16.F.2 Hong Kong Quota Prices/Utilization and Rents for Textile and Clothing Trade with the European Union: 1989, 1997-99

European Union: T&C Categories	Quota Prices			Unit Values			Quota Rents		
	HK \$/doz			US \$/doz			%		
	1989	1998	1999	1989	1997	1998	1989	1997	1998
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4 - knitted shirts, etc.25.1	19.1	2.5	16.9	57.72	84.00	66.72	4.46	0.30	0.49
5 - knitted pullovers, anoraks, etc 67.4	238.5	152.8	300.2	151.80	203.73	166.97	25.43	18.10	13.39
6 - MB shorts, WG trsers, wov.453.3	54.4	13.0	34.0	54.48	82.15	68.22	14.79	1.89	2.52
6A - MB, WG trsers, wov.–	97.4	89.3	158.3	91.26	125.33	103.45	15.97	8.28	12.53
7 - WG blouses, shirts knit, n-knit88.1	35.6	7.2	11.5	94.69	121.58	108.97	5.08	1.86	0.86
8 - MB shirts, n-knit12.7	49.0	2.1	7.2	74.40	118.86	101.24	9.29	0.22	0.27
21 - parkas, anoraks, woven14.3	19.2	17.2	8.7	226.99	252.10	236.07	1.10	0.89	0.95
26 - WG dresses, knit, n-knit22.5	17.3	9.4	8.4	112.65	156.11	134.90	2.02	1.84	0.91
								Weighted with column:	
								14) 4.94	(15) 4.40
								(17) 4.81	(18) 5.89
								Re-based to 100%	
								(14) 6.54	(15) 6.38
								(17) 6.23	(18) 7.50
European Union: T&C Categories	Quota Utilization			% of HK-US Trade			Conversion		
	% of licensed exports			US \$			Volume		
	1989	1998	1999	1989	1997	1998	1989	1997	1998
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
4 - knitted shirts, etc.	99.7	68.7	103.2	4.84	5.68	5.50	5.10	4.69	5.35
5 - knitted pullovers, anoraks, etc	98.1	105.5	104.1	9.54	17.51	16.64	5.40	8.43	9.19
6 - MB shorts, WG trsers, wov.				0.71	1.42	1.53	2.89	4.37	5.29
6A - MB, WG trsers, wov.	103.1	104.5	104.3	9.59	16.41	15.08	25.81	33.08	34.44
7 - WG blouses, shirts knit, n-knit	100.1	88.8	88.4	6.72	10.28	9.45	4.98	6.77	6.50
8 - MB shirts, n-knit	97.1	60.0	57.0	8.06	10.30	8.58	9.05	8.37	7.66
21 - parkas, anoraks, woven	96.7	77.1	79.7	8.16	11.12	9.61	6.08	8.52	7.36
26 - WG dresses, knit, n-knit	61.3	68.1	80.1	1.53	2.84	2.59	1.71	2.61	2.57
Σ				75.56	68.88		76.84	78.36	

Sources:

- Cols. (1)-(3) Unpublished data from Federation of Hong Kong Garment Manufactures; values for 1989 based on weighted average of German and British prices.
- Cols. (4)-(6) Calculated from unpublished HK Trade Dept. quantity data for restrained exports and Eurostat trade statistics on imports by 8 digit codes aggregated to EU textile and clothing category levels converted from ECU to US\$ at prevailing exchange rates.
- Cols. (7)-(9) Based on ratio of quota prices in US\$/doz to unit values net of quota prices.
- Cols. (10)-(12) Unpublished data of HK Trade Dept. on restrained textile exports to the United States by US textile and clothing categories; licensed exports in % of restraint limit (quota).
- Cols. (13)-(15) Calculated from above-mentioned Eurostat value data.
- Cols. (16)-(18) Calculated from unpublished HKTD quantity data.
- Col. (19) From EU OJ Com Reg. 2542/1999 (2/12/99) containing specification of textile and clothing categories.