

APPENDIX D

Table D.1
Summary of Three Different IIT Measures

	Horizontal (H)	Vertical (V)	Total
Modified Grubel & Lloyd	$\frac{BT^H}{TT^H}$ Degree of horizontal IIT	$\frac{BT^V}{TT^V}$ Degree of vertical IIT	$\frac{BT^H + BT^V}{TT^H + TT^V}$ Degree of (horizontal and vertical) IIT
Greenaway, Hine & Milner	$\frac{BT^H}{TT^H + TT^V}$ Proportion of horizontal IIT in total trade	$\frac{BT^V}{TT^H + TT^V}$ Proportion of vertical IIT in total trade	$\frac{BT^H + BT^V}{TT^H + TT^V}$ Degree of (horizontal and vertical) IIT
Fontagne & Freudenberg	$\frac{TT^H}{TT}$ Share of two-way trade in similar products in total trade	$\frac{TT^V}{TT}$ Share of two-way trade in vertically differentiated products in total trade	$\frac{TT^H + TT^V}{TT}$ Share of two-way trade in total trade

Note: Total trade: $TT = (X + M)$

Balanced trade: $BT = (X + M) - |X - M| = 2\text{Min}(X, M)$

Table D.2
Numerical Example of Three Different IIT Measures

Product j	X	M	Total trade (X+M)	Unmatched trade X-M	Unit price difference 15%	Matched trade (X+M)- X-M		Minimum 10% trade flow	Trade types (X+M)				
						H	V		HTW	VTW	OW		
1	9	10	19	1	<	18		Yes	19				
2	1	20	21	19	<	2		No			21		
3	10	18	28	8	>		20	Yes		28			
4	30	2	32	28	>		4	No			32		
Total	50	50	100	56		20	24		19	28	53		
Summary of method of HIIT/VIIT measurement													
						H	V	H+V					
						Matched trade	20	24	44				
						Total Trade	40	60	100				
Measures:						GL	0.50	0.40	0.44				
						GHM	0.20	0.24	0.44				
						FF			0.19	0.28	0.53		

Note: X is value of exports, M is value of imports, H is horizontal, V is vertical, HTW is horizontal two-way trade, VTW is vertical two-way trade, and OW is one-way trade. GL is Grubel-Lloyd related index, GHM is Greenaway, Hine and Milner (1994, 1995), FF Fontagné and Frudenberg (1997)

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