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Implied Imports and Exports

We can calculate the implied change in national imports and exports arising directly from the assumed convergence of prices. Returning to figure B.1 in appendix B, the line segment *ef* shows the increment in imports by city *n* of item *i*, when the local price is above the upper margin of the broad world price band. Likewise, in figure B.2, the line segment *ef* shows the increment in exports by city *n*, when the local price is below the lower margin of the broad world price band. Assuming that all incremental imports and exports involve trade outside national borders, it is possible to calculate the import and export consequences of our static model. The results of this exercise are summarized in table B.1 (starting with market exchange rates) and the details are spelled out in the text of appendix B.

For most countries, the calculated increment in exports does not equal the calculated increment in imports. This discrepancy reflects the limitations of partial equilibrium analysis: no condition is built into the partial equilibrium model that forces export changes to equal import changes. If a general equilibrium framework were used instead, price convergence among consumer goods would cascade through the economic structure, and a closing condition would ensure balance between imports and exports. We think these general equilibrium effects would normally entail larger trade flows than those portrayed in table B.1. Countries with more imports than exports would increase their exports, because idle local resources would seek employment in the export sector. Conversely, countries with more exports than imports would increase their imports, as excess local demand was satisfied by foreign goods. In other words, general equilibrium analysis would predict a larger expansion of world trade flows than portrayed in table B.1. Assuming the additional expansion

followed the principles of comparative advantage, there would be further benefits beyond those we have calculated. Again, this is a difference between static and dynamic calculations.

For example, Brown, Deardorff, and Stern (forthcoming), using a CGE model, calculated that world imports and exports combined (goods and services) would increase by $2 trillion with complete liberalization by all countries of all post-Uruguay Round barriers (the scenario that generated static and dynamic world welfare gains of $1.9 trillion in their model). By comparison, our calculation is $2.1 trillion of additional merchandise exports (table B.1), compared with $0.6 trillion of static world welfare gains (table 1.1, starting with market exchange rates). The implied ratio between static gains and additional trade—about one-to-three—is consistent with other partial equilibrium estimates.[1] In contrast, general equilibrium models typically calculate a ratio between total gains (static plus dynamic) and additional trade at a one-to-two ratio, or even (as in the case of Brown, Deardorff, and Stern, forthcoming) at a one-to-one ratio.[2]

1. See, for example, Hufbauer and Elliott (1994).

2. However, Scollay and Gilbert (2001) arrive at a very different result. These authors use a CGE model to calculate static world gains from global liberalization of 0.56 percent of initial GDP (table 3.2f). Since initial GDP (at market exchange rates) is $28,862 billion in their model, the gains work out to $162 billion (table 2.5b). By contrast, the calculated change in world exports is 23.23 percent of base period (1996-98) exports. Base period exports were about $5,390 billion (International Monetary Fund 2000), indicating an export increase of $1,252 billion. In the Scollay and Gilbert model, net welfare gains are only 13 percent of export expansion.