ANNEX: An Ownership-Based Trade Measure

An ownership-based trade measure expands the measurement of trade performance and competitiveness beyond the traditional balance of payments measurements. The alternative measure of trade performance is based on translating export and import data into "foreign sales" and "foreign purchases" data. This alternative measure is based on the assumption that a firm can supply an external market through exports or by relocating of its production through direct investment and local sales. The results will then be on an ownership basis rather than a residency basis.

The construction of an ownership-based measure of the economic transactions between countries has to include the way a country's firms, domestic or off-shore, penetrate foreign markets, that is, through exports/imports and through the local sales/purchases of foreign-owned firms. Problems arise when FDI-related trade which could be present in both measures is double-counted. For example, a foreign-owned firm operating in Canada imports components from the investor country, assembles the components into product in Canada and sells them domestically. These components could be double-counted since they are included both in the investing countries' exports to Canada and in the local sales of the foreign-owned firms in Canada.

The organizing principle is to convert traditional import and export figures into measures of "foreign purchases" and "foreign sales" which assign transactions according to nationality of ownership rather than residency. The intent is to create a measure that reflects the fact that a firm can choose to supply a foreign market either by exporting to it or by investing in it and selling locally. Such ownership-based measures should be insensitive to shifts in foreign strategy by individual firms.

The basic procedure is to subtract FDI-related trade from the traditional trade measures to avoid double-counting and to add the local sales/purchases of foreign-owned firms. Figure 1 illustrates a world with only 2 countries and domestic and foreign-owned firms. In this two-country world, the foreign-owned firms operating in Country 1 are owned by domestic investors in Country 2 and vice versa. From Figure 1, the exports of Country 1 on the <u>traditional residency basis</u> can be written as:

EXPORTS = (Country 1, Residence)	Shipments from domestically-owned firms and consumers (A) to Domestically-owned firms and consumers in Country 2 (C) plus	**AC +**
	Shipments from domestically-owned firms and consumers (A) to Foreign-owned firms in Country 2 (D) plus	**AD +**
	Shipments from Foreign-owned firms (B) to Domestically-owned firms and consumers in Country 2 (C) plus	**BC +**