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### Coming to Grips with

# GLOBALIZATION

BY PHIL ABBOTT, MIKE BOEHLJE, AND OTTO DOERING

The march...or charge...of globalization: Opponents of "globalization" depict it as a juggernaut flattening everything unlucky enough to be in its path, but trade as a proportion of global gross domestic product has increased little in the last century. The truth about globalization is far too complex for catchy buzzwords.

image courtesy ArtToday



lobalization is, to coin a phrase, everywhere. It certainly has become an important dimension of the changing agricultural sector. Export growth for United States agricultural products is a fundamental premise of U.S. farm policy, and an indicator of the business climate for farm and agribusiness firms. U.S. policy has sought to facilitate the trend towards a higher proportion of high-value and processed food products in agricultural trade.

But do we really understand globalization — the changing dimensions; the drivers; the interrelationships among technology, capital and financing, goods trade, and markets across the national and international economy? While our interest is ultimately globalization's impact upon agriculture and related sectors, globalization is driving and being driven by a range of related factors that influence all sectors. The focus of this discussion will therefore be on the broader economic integration and globalization of industry and business.

#### **Perceptions and Facts About Globalization**

First, some observations on what globalization is and is not. Globalization should not be equated with trade liberalization (IFPRI). Trade liberalization is only one of many facets of globalization. Globalization is about broad economic integration that involves capital flows, foreign direct investment, trade in services, immigration rules, and special treatment for the migration of highly skilled workers. Globalization gives strong incentives to firms to restructure and to change behavior. This in turn changes the way business is done.

Contrary to popular perception, trade as a proportion of world GDP is not much greater than it was at the beginning of the last century (Rodrick and Krugman). Other components of globalization tell a different story — movements of financial resources, to name one. Financial capital flows, often speculative, vastly exceed the value of trade flows (Table 1 and Rodrick).

The composition of trade is also different. Agricultural trade is increasingly dominated by high value products. Bulk commodities, which dominated much of colonial trade a century ago and led the boom in agricultural trade of the late 1970s, are now an increasingly smaller proportion of the value of trade (Henderson, Handy and Neff).

Firms have changed the way they participate in trade and the global economy. Market opportunities in the rest of the world contrast with the slow growth of mature markets in Europe and the U.S. This has encouraged firms in the food production and distribution industries, from Deere & Co. and Du Pont/Pioneer to McDonald's and Wal-Mart, to emphasize global expansion strategies. Mergers and expansion have

Table 1. Balance of Payments - Trade and Investment Flows Euro Area Japan Korea U.S. 1980 U.S. 1990 U.S. 2000 1999 2000 2000 Exports 226 394 775 1,003 460 122 245 495 991 343 98 **Imports** 1,224 2 Current Account Deficit = -80 445 32 -117 21 Foreign Direct Investment -2 12 136 -6 -24 4 17 49 305 8 Inflow 288 8 11 -7 -131 -36 -6 Portfolio Investment 144 22 47 -7 Inflow 14 269 252 GDP 2,795 5,803 9,873 6,431 4,749 406 Gross Investment 484 847 1,778 1,372 1,197 113 -9.8% % from Abroad \* 0.4% -9.4% 25.0% 2.3% 18.2% % FDI - Inflows \*\* 3.5% 16.2% 0.7% 7.0% 5.8% 22.2% - Net \*\* -0.4% 1.4% 7.6% -0.4% -2.0% 3.8% Trade as a Share of GDP + 16.9% 15.3% 20.2% 31.0% 16.9% 54.3%

- = Net Capital Inflows
- \* Current Account Deficit / Gross Investment
- \*\* FDI Inflows / Gross Investment
- \*\*\* FDI (net)/ Gross Investment
- + (Imports + exports)/GDP

Source: International Monetary Fund, International Financial Statistics

Figures are billions of current U.S. dollars.

led to highly concentrated industries (Connor and Sheik). Vertical coordination has increased, particularly across borders. Sales through subsidiaries, affiliates, or through alliances dominate trade as a way to go global (Henderson, et al.). Intra-firm trade and sales by affiliates abroad are also increasingly the market entry model for manufacturing, including the food processing and agricultural input industries (Table 2).

Globalization is more about firms finding innovative ways to cross borders and financiers making deals on their cell phones than it is about goods crossing oceans in boats. In spite of massive international capital flows and the perception of globalization as dominant in finance, we still have a home bias in consumption and investment (Obsfelt and Rogoff). We see low "net" capital flows in spite of larger "gross" flows — the exception being capital inflows into the U.S. as a safe haven following the Asian financial crisis. Foreign direct investment and portfolio investment have rapidly increased as a way for firms and investors to operate outside of their own country (Table 1).

In spite of the move toward freer trade, there are still unexplained price differentials and incomplete transmission of prices across borders. These persist in the face of exchange rate movements (Knetter and Goldberg). Such "unexplained" price differentials between the U.S. and Canada, for example, are the equivalent of an additional 700 miles of transportation at the border (Knetter). Exchange rates also tend to "overshoot" in adjustments they bring to changing conditions. Agriculture is recognized as one of the most flexible sectors, whose pricing is highly sensitive to exchange rate fluctuations (Rausser Stamoulis).

#### **Globalization Around** the...Globe

Globalization is not uniformly manifest around the world. It is strongest in the U.S., Japan, Europe, and East Asia, followed by South America, Eastern Europe, and South Asia. In contrast, we see little in sub-Saharan Africa or the former Soviet Union.

Globalization has been spurred by the move toward more market-based economies. Some countries are embracing more market orientation in part because they have been subject

to the golden strait-jacket enforced by the International Monetary Fund (IMF), World Bank, and conditions placed on U.S. Agency for International Development (USAID) funds (Friedman). These countries are forced to meet international conditions intended to reduce trade deficits and shrink international debt. International institutions, such as the World Trade Organization (WTO), increasingly influence domestic policy issues such as the environment, labor standards, and food safety. These actions represent the attempts of the powerful to impose their values on the less powerful, and mirror the actions of multinational corporations to impose their wills on local communities in different parts of the globe.

Globalization and more complete economic integration should, in theory, bring about more equality of income distribution (Winters, BenDavid). In fact, however, income distribution is becoming more unequal, in both developed and developing economies (Pritchett). In many countries during the process of integration, rural areas are increasingly left behind when the agricultural sector does not keep up with sectors that trade higher-value products. Within developed countries, unskilled and low-skilled labor comes under increasing pressure from low-cost labor in less developed countries. Some might explain increasing income divergence by arguing that we are only in the painful transition to a better world that will emerge after full integration. Others contend that multi-national firms have come to dominate globalization, and thus influence — if not dictate — the distribution of income.

#### **Driving the Globalization Express**

Why has globalization taken the shape we see today? Why has the agricultural sector only been a partial participant? Among the reasons: The information technology explosion has expanded the geographic reach of firms as well as lowering the costs of assessing consumer demands and delivering products from producers to consumers.

At the same time, firms have reaped the benefits of dramatic improvements in transportation, including logistics, scheduling, and delivery. Parts of the globe that could not previously obtain or supply products are now able to do so. A "global economy consumer" can get anything from fresh

flowers grown in Holland to computer parts from Thailand — all based on justin-time delivery. Equally important, advances in containerization, climate control, shock-proof packaging, and other technologies have dramatically improved speed to market, quality, and delivery reliability (USDA).

Lower transaction costs, due in part to more globally accessible information, make financial and speculative capital increasingly mobile. Firms' ability to expand production and processing capacity and countries' ability to finance gov-

ernment deficits are no longer necessarily constrained by domestic savings behavior.

Technology, including food production and processing as well as manufacturing technology, is less geographically bound. It moves across country borders more within firms through foreign direct investment (FDI) and subsidiaries, and less from direct international technology transfer or from organizations such as the International Rice Research Institute and similar institutions.

#### A New Playing Field

What is occurring is a rewriting of the parameters of comparative advantage. Globalization has the potential to narrow the gap between the productivity of those parts of the world that have traditionally dominated, by increasing the efficiency of new locations. This drives the growth of world-wide sourcing and selling strategies. The locus of production or manufacturing no longer is an important factor, and existing production bases no longer have a guarantee of survival. This is what fuels many of the objections to globalization.

The model used by the agricultural sector to enter international markets in part mirrors that used by manufacturing, but with some important differences for food processing and production agriculture (Table 2). Input industries look most like manufacturing, relying more on intra-firm trade and FDI to enter foreign markets. Food processing, on the other hand, exhibits a tendency to source raw materials abroad and rely more heavily on FDI for marketing and distribution. However, bulk commodities largely continue to be traded in "arms-length" transactions between unrelated firms.

Globalization actually encourages the industrialization of agriculture. The drivers of globalization — information, improved logistics, lower transaction costs, and more mobile capital — are allowing firms to profit by industrializing the last "cottage industry" sector of the economy. Globalization

> is lagging behind in most of production agriculture, relative to manufacturing and agribusiness.

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International

Development....

#### Making the World Safe for Ag Technology

The technology needs and biases of agribusiness also change with globalization. What is wanted by the big multinational players is applied research for adaptation, not basic research. Some of this is driven by food safety concerns and questions of acceptability for genetically modified organisms (GMOs) and hor-

mones. Intellectual property rights and their enforcement overseas become a critical issue for those in the private sector doing agricultural research, and to those wanting exclusive rights to products. Concerns in these areas lie behind much of the controversy and criticism of agribusiness, including the push by the U.S. for increased GMO trade (and liberal rules), and for the use of "terminator genes" by seed companies.

The simplistic notion that free trade will provide continuing tangible benefits for production agriculture is being called into question (Ray). If agriculture is defined as raw commodity production, increased globalization (that is, trade liberalization) has done relatively little for producers. This is especially true in a world where one can obtain raw commodities nearly anywhere. Trade policy is being drawn into different arenas — such as environmental standards, labor standards, and human rights — that make reducing trade barriers more difficult.

We also see domestic agricultural policy running head on into globalization. Problems in agriculture may end up holding global trade negotiations hostage, as was the case when the U.S. attempted to open the Japanese rice market during the General Agreement on Tariffs and Trade Uruguay Round. Recent U.S. farm legislation (specifically, supplemental Agri-

Table 2 - International Market Entry Modes - Trade, Intra-firm Trade, and Sales from Foreign Direct Investment (billions of current U.S. dollars)

	1998	Agriculture	Food	Ag Chemicals	Farm Machinery	Manufacturing	All Industries
Exports		25.3	27.9	6.0	5.1	597	682
Intra-firm Exports from U.S.		0.5	6.5	2.4	**	224	367
Intra-firm share		2.0%	23.3%	40.0%	**	37.5%	53.8%
Sales Abroad by U.S. Affilliates		2.8	133.1	7.7	7.7	1087	2443
Sales / Exports		11.1%	477.1%	128.3%	151.0%	182.1%	358.2%
Imports		16.2	25.7	3.2	4	791	912
Intra-firm Imports to U.S.		0.7	7.7	**	**	383	478
Intra-firm share		4.3%	30.0%	**	**	48.4%	52.4%
Sales in U.S. by Foreign Affilliates		2.3	49.8	3.7	**	834	1882
Sales / Imports		14.2%	193.8%	115.6%	**	105.4%	206.4%
	1990	Agriculture	Food	Ag Chemicals	Farm Machinery	Manufacturing	All Industries
Exports	1990	Agriculture 24.0	Food 16.3	Ag Chemicals 4.3	Farm Machinery 2.8	Manufacturing 315	All Industries
Exports Intra-firm Exports from U.S.	1990	_		-			
•	1990	24.0	16.3	4.3	2.8	315	394
Intra-firm Exports from U.S.	1990	24.0 0.3	16.3 3.6	4.3 0.5	2.8 0.6	315 133	394 198
Intra-firm Exports from U.S. Intra-firm share	1990	24.0 0.3 1.3%	16.3 3.6 22.1%	4.3 0.5 11.6%	2.8 0.6 21.4%	315 133 42.2%	394 198 50.3%
Intra-firm Exports from U.S. Intra-firm share Sales Abroad by U.S. Affilliates Sales / Exports Imports	1990	24.0 0.3 1.3% 1.6 6.7% 9.7	16.3 3.6 22.1% 75.9 465.6% 17.7	4.3 0.5 11.6% 2.8 65.1% 1.9	2.8 0.6 21.4% ** **	315 133 42.2% 741 235.2% 389	394 198 50.3% 1493 378.9% 495
Intra-firm Exports from U.S. Intra-firm share Sales Abroad by U.S. Affilliates Sales / Exports Imports Intra-firm Imports to U.S.	1990	24.0 0.3 1.3% 1.6 6.7% 9.7 0.1	16.3 3.6 22.1% 75.9 465.6% 17.7 3.7	4.3 0.5 11.6% 2.8 65.1% 1.9 0.2	2.8 0.6 21.4% ** ** 2.7 1.5	315 133 42.2% 741 235.2% 389 128	394 198 50.3% 1493 378.9% 495 284
Intra-firm Exports from U.S. Intra-firm share Sales Abroad by U.S. Affilliates Sales / Exports Imports Intra-firm Imports to U.S. Intra-firm share	1990	24.0 0.3 1.3% 1.6 6.7% 9.7 0.1 1.0%	16.3 3.6 22.1% 75.9 465.6% 17.7 3.7 20.9%	4.3 0.5 11.6% 2.8 65.1% 1.9 0.2 10.5%	2.8 0.6 21.4% ** 2.7 1.5 55.6%	315 133 42.2% 741 235.2% 389 128 32.9%	394 198 50.3% 1493 378.9% 495 284 57.4%
Intra-firm Exports from U.S. Intra-firm share Sales Abroad by U.S. Affilliates Sales / Exports Imports Intra-firm Imports to U.S.	1990	24.0 0.3 1.3% 1.6 6.7% 9.7 0.1	16.3 3.6 22.1% 75.9 465.6% 17.7 3.7	4.3 0.5 11.6% 2.8 65.1% 1.9 0.2	2.8 0.6 21.4% ** ** 2.7 1.5	315 133 42.2% 741 235.2% 389 128	394 198 50.3% 1493 378.9% 495 284

Source: US Department of Commerce,

U.S. Direct Investment Abroad; Foreign Direct Investment in the United States; and Trade dataweb.

cultural Market Transition Act payments) has brought the U.S. dangerously close to violating its own WTO commitments from the Uruguay Round.

The emphasis on counter-cyclical payments in the current farm bill proposals and the bills recently passed in the U.S. House of Representatives and the Senate contradict the 1994 agreement on agriculture and are inconsistent with U.S. proposals in ongoing WTO negotiations. Trade agreements often require little change when adopted, but were thought to prevent future administrations from backsliding on reform commitments. It appears U.S. farm policy may be caught by this constraint today, unless it chooses to abandon those commitments, as the October 2001 House version of the Farm Bill suggests (FAPRI).

#### **Postscript: The World Since September 11**

September 11 clearly has had an impact on globalization. The economic downturn, already underway, has been accentuated by the attacks and their aftermath. There will be major additional costs in logistics and in the movement of goods that will be internalized and passed on to consumers. This will slow the

globalization process. However, other major forces driving globalization need not be impeded. The increasing use of foreign subsidiaries or partnerships to gain market access and source goods may expand faster to make up for some of the impediments to trade resulting from September 11.

Globalization is about all those things that affect the reach and influence of firms, as well as governments, as they expand

their horizons internationally. If September 11 results in a war footing or bunker mentality for developed economies, there is the danger of a parallel to the retrenchment that followed both world wars (Kriegman). Globalization engenders increased international vulnerability. If threats or actions make this vulnerability dangerous, then those forces that drove globalization and increased vulnerability will lead governments as well as businesses to turn inward.



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<sup>\*\*</sup> Missing data in the Ag Chemical and Farm Machinery sectors is due largely to the fact that the Department of Commerce cannot report data which might reveal firm level information. Hence, there are relatively few firms in these Industries, indictating a high degree of concentration.