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The Limited Promise of Agricultural Trade Liberalization

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Abstract

It has become an article of faith in international trade negotiations that farmers in developing countries have much to gain from agricultural trade liberalization. This paper assesses the evidence for such claims. It concludes that the promise of agricultural trade liberalization is overstated, while the costs to small-scale farmers in developing countries are often very high.

Relying on World Bank data and analyses, United Nations trade data, and other economic modeling carried out to inform the current round of World Trade Organization negotiations, this paper shows that rich countries are the main beneficiaries of agricultural trade liberalization, gaining markets in both the global North and South. Only a limited number of developing countries – for example, Argentina and Brazil – can compete effectively in global markets. Most developing countries are left out of the export boom but suffer the negative effects of rising imports, as they reduce their own tariffs and farm supports. Meanwhile, farm prices do not remain high for long after liberalization, as supplies, fed by rising yields and new land under cultivation, catches up to rising demand. While the current commodity boom, fueled in part by the demand for agro-fuels, may keep prices high for a few years, it is unlikely to fundamentally alter the structure of global agriculture and the long-term trends toward lower prices.

Keywords: agriculture, trade, commodities, rural development, liberalization

Introduction

It has become an article of faith in international trade negotiations that farmers in developing countries have much to gain from agricultural trade liberalization. The World Bank issues study after study touting the potential gains to the rural poor of policies that reduce tariffs, subsidies, and other barriers to agricultural trade. Meanwhile, campaigners for global justice, such as the international development agency Oxfam, assert that such reforms to rich country agricultural policies will represent a major step in reducing poverty in the global South.

This paper assesses the evidence for such claims. It concludes that the promise of agricultural trade liberalization is overstated, while the costs to small-scale farmers in developing countries are often very high. The promise is that reforms will reduce overproduction in the global North. Prices will rise, benefiting all producers. Developing countries, which are seen to have a comparative advantage in agriculture, will gain rising shares of export markets for their agricultural goods. In essence, the promise of agricultural liberalization is the lure of export markets.

Relying on World Bank data and analyses, United Nations trade data, and other economic modeling carried out to inform the current round of World Trade Organization negotiations, this paper shows that rich countries are the main beneficiaries of agricultural trade liberalization, gaining markets in both the global North and South. Only a limited number of developing countries – for example, Argentina and Brazil – can compete effectively in global markets. Most developing countries are left out of the export boom but suffer the negative effects of rising imports, as they reduce their own tariffs and farm supports. Meanwhile, farm prices do not remain high for long after liberalization, as supplies, fed by rising yields and new land under cultivation, catches up to rising demand. While the current commodity boom, fueled in part by the demand for agro-fuels, may keep prices high for a few years, it is unlikely to fundamentally alter the structure of global agriculture and the long-term trends toward lower prices.

The current food crises plaguing much of the world may not represent a long-term shift toward higher prices, but it has generated some welcome new thinking about agricultural development. In late 2007 the World Bank published *World Development Report 2008: Agriculture for Development*. In a welcome shift from its advocacy of export-oriented policies, the report reasserts agriculture's importance in the economic development process, particularly for less-developed, agriculture-based economies such as those in Sub-Saharan Africa, but also for what the report calls the "urbanizing" economies of regions such as Latin America. The report notes the particular importance of small-scale agriculture in poverty reduction and the critical role of governments in overcoming market failures. The authors call on governments and international agencies to increase the assets of poor farmers (particularly access to land, water, education, and health care), to raise the productivity of smallholders, and to generate opportunities in the rural non-farm economy (World Bank 2007).

Unfortunately, the World Bank report continues to call for deeper liberalization in agriculture. This paper offers a detailed analysis of why the promise of liberalization for developing country farmers is overstated, while the dangers are very real.

Who Wins from Liberalization?

Contrary to the rhetoric that accompanies trade negotiations, evidence suggests that developing countries have far less to gain from agricultural trade liberalization than free-trade proponents suggest. The claims are certainly grandiose. Anderson and Martin (2005) of the World Bank have referred to the gains from agricultural trade liberalization under the World Trade Organization's Doha Round as "huge." It is hard to see how their own projections justify such a statement.

Table 1 presents the World Bank's projections for gains from agricultural trade liberalization under a scenario modeled in 2005 to estimate the likely reforms from the Doha Round. Global gains are estimated at \$96 billion (2001 US dollars) for the year 2015, with \$75 billion coming from agricultural reforms. That is already a far cry from the more widely quoted figure of \$287 billion overall (\$182 billion of which is from agricultural liberalization), which is the Bank's estimate under a scenario of full liberalization. The more realistic projection is only 0.18% of global GDP. More important, high-income countries are projected to capture \$66 billion of the \$75 billion in gains, nearly 90% of the total. Developing countries as a group see just \$9 billion in welfare gains, less than one-tenth of a percent of GDP and less than \$2.00 per person per year. Gains of less than a penny-a-day per person would not seem to justify the use of the term "huge."

Table 1. Potential Gains from Agricultural Liberalization

	Doha scenario: Beneficiary Region		
	High-income	Developing	World
Total	\$66 billion	\$9 billion	\$75 billion
Percent GDP	0.20%	0.09%	0.18%
Per capita	\$64.96	\$1.77	\$12.36

Source: Anderson, K., W. J. Martin, et al. (2005). Global impacts of the Doha Scenarios on poverty. Putting Development Back into the Doha Agenda: Poverty Impacts of a WTO Agreement. T. W. Hertel and L. A. Winters. Washington, D.C., the World Bank: Chapter 17.

So part of the reason the promise of agricultural trade liberalization is overstated is that the projected gains, once put in context, are quite small, and high-income countries capture the vast majority of the benefits.

This should not be surprising. While trade theorists continue to refer to developing countries' comparative advantages in agriculture, rich countries dominate global agricultural trade. Table 2 shows the global market share of agricultural exports for the most traded non-tropical agricultural commodities. In 2005, rich country exporters dominated global markets for maize, wheat, barley, and cotton. Only in oilseeds, sugar, and rice did developing countries as a group export more than half the value of any non-tropical agricultural commodity in 2005.

Table 2.

2005 Shares of Commodity Export Value: Developed World and Next Largest Competitor Region		
	2005 Share	Next Largest Region (Share)
Maize	65%	Latin Am/Caribbean (15%)
Wheat	75%	Former Soviet Union (12%)
Barley	72%	Former Soviet Union (19%)
Sugar	39%	Latin Am/Caribbean (34%)
Oilseeds	48%	Latin Am/Caribbean (42%)
Cotton	66%	Sub-Saharan Africa (10%)
Rice	29%	South Asia (32%)
Source: UN Statistics Division, Comtrade		

As the table shows, the next largest region's share of each of those markets tends to be dominated by the countries of the former Soviet Union and Latin America and the Caribbean. A closer look shows how concentrated these markets are, with Brazil, Argentina, China, and the former Soviet Union controlling the lion's share of agricultural exports from the non-industrialized world. Table 3 presents more detail on the size and potential of these export markets and the relative competitiveness of developing countries.

Table 3.

Developing World's Share of Global Export Value for Selected Commodities							
	2005 World Export Value, (US\$ billions)		Developing World		Without Brazil, Argentina, China, and Former USSR		Countries Gaining Significant Market Share
			2005 share	Change, 1995-2005	2005 share	Change, 1995-2005	Country (% point gain '95-'05)
				% pts		% pts	
	1	2	3	4	5	6	7
Oilseeds	\$20.9	82%	52%	25	11%	3	Brazil (19), Argentina (4)
Wheat	\$17.4	2%	25%	13	6%	1	Former USSR (10), Australia (6)
Sugar	\$15.8	16%	61%	14	30%	-1	Brazil (11)
Maize	\$11.1	2%	35%	24	9%	4	China (10), Argentina (5)
Cotton	\$8.2	2%	34%	-3	24%	-3	India (7), Brazil (4)
Rice	\$7.9	29%	71%	-4	66%	3	Pakistan (7)
Barley	\$3.6	72%	28%	20	8%	3	Former USSR (16)
Source: UN Statistics Division, Comtrade							

The table presents the 2005 global export value for each commodity group, in descending order of value. The second column shows the growth in these export markets globally in the last decade. While some have shown dynamic growth – notably, oilseeds and barley – it is worth noting that several have barely expanded, despite the dramatic rise in global trade. Wheat, maize, and cotton registered only 2% growth in overall export value from 1995-2005. One way for the developing world to benefit from expanding global trade is to maintain its market share in a dynamic and growing market. It would be a mistake to suggest that all of these agricultural markets show that dynamism.

Columns 3 and 4 show the developing country share of each market in 2005 and the amount by which that share grew since 1995. The latter draws on a methodology developed by Lall and Weiss (2005) to gauge international competitiveness. They look at the global market share gained or lost by a given country or region as an indicator of its ability to compete in the global marketplace for a given product. As the fourth column shows, developing countries as a group lost market share in cotton and rice while making impressive gains in oilseeds, maize, barley, and, to a lesser extent, wheat and sugar. This suggests that developing countries as a group have shown only uneven capacity to compete for market share in a liberalized world market.

Columns 5 and 6 are perhaps the most revealing, though. In most global markets, the number of countries that have shown competitiveness in agricultural commodities is quite limited. These two columns take Brazil, Argentina, China, and the former Soviet Union out of the developing country totals. Only in rice do the remaining developing countries control a majority of exports. And the revealed competitiveness shown by the ability to expand market share over the previous ten years is vastly reduced.

Making reference to columns 4, 6 and 7, we can see that in oilseeds, developing countries gained 25 percentage points of global market share, and 23 of those were captured by Brazil (19) and Argentina (4). Similarly, Brazil claimed 11 points of the 14-point gain in sugar. The 24-point gain in developing country maize trade was captured largely by China (10) and Argentina (6). Meanwhile, the countries of the former Soviet Union took 10 of the 13-point gain in wheat exports and 16 of the 20-point increase in barley sales. In the developing world, only two other countries show significant competitiveness in these major export commodities, India, with a 7-point gain in cotton, and Pakistan, with a 7-point gain in rice exports.

The main conclusion from this examination of revealed competitiveness is that very few developing countries find themselves in a position to compete internationally in liberalized agricultural markets. Those that do, such as Brazil and Argentina, generally have vast tracts of high-quality land, have achieved a significant level of industrialization, have modernized much of their agricultural production, and have developed the infrastructure to respond to the demands of the global market. To emerge a winner from agricultural trade liberalization, other developing countries will need to out-compete not just the global North but these emerging agricultural export powerhouses.

Limited Shift in Northern Production, Prices

The prospects for broad developing country gains from agricultural trade liberalization dim even further when we examine the projected impacts of liberalization on specific commodity markets. The promise, championed by advocates as diverse as the World Bank and the development group Oxfam, is that reforms to rich-country agricultural support programs will result in significant production and export cuts in those countries. As a result, prices long suppressed by trade-distorting policies – mainly farm subsidies in the United States and tariffs and export subsidies in the European Union and Japan – will rise and developing countries will earn higher prices for their exports and gain market share in a less distorted global marketplace.

Most evidence suggests that such promises are true to only a limited extent and for a limited number of commodities. Using a partial equilibrium model, researchers at the French institute, CEPII, projected the static price impacts of a likely Doha agreement on world agricultural prices, breaking down the projected price impacts by the particular area of reform – domestic support, export subsidies, or tariffs (Bouet, Bureau et al. 2004). Their results, reprinted in Table 4, are indicative.

Table 4. Impact of the Doha Agreement scenario on world prices (import prices)

Sector	Initial share in world exports	Domestic support	Export subsidies	Tariffs	Doha agreement, 3 pillars
Paddy rice	0.6	8.2	0.1	1.3	9.4
Processed Rice	1.2	0.6	0.0	0.3	1.0
Coarse grains	3.6	2.6	0.1	0.5	3.1
Wheat	3.9	1.4	0.1	0.9	2.3
Sugar	2.7	0.2	5.6	-1.5	2.8
Oilseeds	5.7	9.1	0.0	0.5	9.7
Live animals	1.2	0.9	0.1	0.7	1.6
Animal products	3.4	0.6	0.0	0.1	0.8
Meat	4.0	0.6	0.1	0.5	1.2
Meat products	4.8	0.3	1.5	0.1	2.0
Dairy products	3.6	0.3	2.3	0.0	2.7
Fibers	3.6	25.6	0.0	0.2	26.0
Fruits & vegetable	8.3	0.1	0.2	0.5	0.8
Other crops	10.1	0.8	0.0	0.4	1.2
Fats	7.2	2.8	0.0	0.2	3.0
Beverages and Tobacco	11.0	0.1	0.5	0.3	0.3
Processed food	25.0	0.3	0.6	0.4	0.9
Total agrofood	100.0	2.1	0.5	0.3	2.8

Source: Bouet, A., J.-C. Bureau, et al. (2004). Multilateral agricultural trade liberalization: the contrasting fortunes of developing countries in the Doha round, CEPII.

For the entire agro-food sector, they project only a 2.8% price increase as a result of likely Doha reforms. Only three sectors show price increases higher than 3.1% -- fibers (mainly cotton), paddy rice, and oilseeds. We examine those in more detail below, but before moving on it is worth noting how limited the price impacts are for some of the most important commodities under discussion. Coarse grains, which include maize, show only a 3.1% price impact despite being the most heavily subsidized crop in the United States. Similarly, wheat prices are projected to increase only 2.3% with liberalization. Even sugar shows limited price impacts, with gains from the elimination of EU export subsidies being partially offset by the loss of preferences that boost prices for many developing country exporters.

Let us examine more closely the commodities projected to show significant production and price impacts, at least in the short term. The U.S. cotton program, with its trade distorting domestic subsidies, was found to be in violation of even the Uruguay Round agreement. CEPII projects a 26% price impact from reform of the U.S. program. This is significantly higher than other estimates (see, for example, Alston, Sumner et al. 2007). But all analysts agree that cotton is one

commodity where Northern policy reform would have an impact on global production and prices.

Table 5 shows the 2005 market shares for the top ten cotton exporters. With nearly 50% of the export market dominated by the United States, it is no surprise we would expect significant production and price impacts from U.S. reforms. Less clear is who would benefit from such policy changes.

Table 5.

Cotton: Top 10 Exporting Countries by Export Share, 2005		
	2005 share	Change, 1995-2005
USA	48.8%	2.1
Australia	9.3%	2.3
India	8.0%	7.3
Brazil	5.5%	4.3
Greece	4.2%	-0.7
Kazakhstan	2.0%	1.6
Benin	2.0%	0.5
Cote d'Ivoire	1.7%	0.0
Cameroon	1.6%	0.6
Pakistan	1.6%	-1.2

Source: UN Statistics Division, Comtrade

Using our previous method to estimate revealed competitiveness, we can see that the countries that showed export dynamism from 1995-2005 were India, Australia, and Brazil. West African countries, which are significant producers and perhaps most need to gain from reforms, show only limited competitiveness. Some recent studies suggest that U.S. cotton reforms could dramatically boost West African cotton incomes (see, for example, Alston, Sumner et al. 2007). This could well be true, even if these producers see only higher prices and no increase in market share following U.S. reforms. But the competitiveness indicator in Table 5 offers a caution: Australia, India, and Brazil are the countries that sit poised to capitalize on any decline in U.S. production, and they could easily siphon off the benefits from liberalization in cotton.

Rice is a more complicated story. Rice markets show a projected 9% short-term price increase from Doha reforms, mainly from reductions in farm subsidies in the United States and removal of protective tariffs in important rice-consuming countries such as Japan and South Korea. The global North does not dominate rice export markets, though, with only the United States and Italy showing up as significant exporters. (Belgium is principally a re-exporter.) Pakistan is the one country showing gains in competitiveness from 1995-2005. Other modeling suggests that Thailand would be a major winner from liberalization in Northern rice policies, exporting to other Asian countries.

Table 6.

Rice: Top 10 Exporting Countries by Export Share, 2005		
	2005 share	Change, 1995-2005
Thailand	29.2%	-0.5
India	17.7%	-3.0
USA	16.2%	1.0
Pakistan	13.8%	6.5
Italy	5.7%	-0.5
China	2.8%	2.6
Uruguay	2.5%	0.0
Belgium	1.8%	1.8
Spain	1.5%	-0.3
Argentina	1.1%	-1.0

Source: UN Statistics Division, Comtrade

Oilseeds, the other commodity projected to show significant production and price impacts from liberalization, are dominated by soybean trade. As noted earlier, Brazil and Argentina in the last ten years have risen considerably as competitive exporters, entirely at the expense of the United States and, to a lesser extent, Canada. Table 7 shows Brazil gaining about 19 percentage points in market share, equal to the U.S. decline, and Argentina gaining 4 points, equivalent to Canada's loss. The only other country to show sizeable gains in market share in that ten-year period was one of South America's other soybean producers, Paraguay.

Table 7.

Oilseeds: Top 10 Exporting Countries by Export Share, 2005		
	2005 share	Change, 1995-2005
USA	32.0%	-19.1
Brazil	25.7%	19.0
Argentina	11.6%	4.0
Canada	6.8%	-4.0
China	3.2%	-1.1
France	2.9%	-2.0
Paraguay	2.9%	1.3
Netherlands	2.1%	0.1
Australia	1.4%	0.7
India	1.4%	0.2

Source: UN Statistics Division, Comtrade

To summarize, the promise that developing country farmers will see significant benefits from global agricultural trade liberalization is overstated because:

- the projected gains from agricultural liberalization for the developing world as a whole are quite small;

- reforms in rich-country farm programs produce relatively small production and price impacts for most commodities; impacts are projected to be significant in only cotton, rice, and oilseeds;
- a limited number of countries – most notably, Brazil, Argentina, China, and the former Soviet Union – has demonstrated the competitiveness to take advantage of such market openings.
- The smallest-scale farmers are likely to benefit the least. As the World Bank notes, the transmission of world prices to local producers is “very imperfect.” Thus, “the overall effect of trade policy reform on farm incomes of staple food producers in the poorer developing countries is likely to be small” (World Bank 2007, pp. 156-7).

Short-term Gains, Long-term Decline

The promise of agricultural trade liberalization is overstated in another important way as well, one that is less widely acknowledged than the limitations above. Most trade models, including the ones cited above, do not capture long-term adjustments in commodities markets. Most models are static. They establish a baseline, impose the policy change within the model, and measure the changes in output, prices, and incomes. Some go one step further, factoring in assumed economic growth or productivity increases to give an estimate for a future post-reform year. The World Bank’s Doha projections did just that, testing a reform scenario against a 2001 baseline, then factoring in economic growth to give an estimate for 2015 of the gains from reform compared to the non-reform scenario.

The problem with this approach is that the shock of an initial reform can produce an impact that diminishes over time as commodities markets adjust. The CEPII model cited above, for example, projects a 26% price increase for cotton, presumably because it models significant reductions in U.S. cotton subsidies, which produce an equally significant shift out of cotton by U.S. producers. Prices go up as global production goes down. But it would be a mistake to assume that global production will remain that low or that prices will remain that high. In fact, other producers will increase production, supplies will rise to meet demand, and prices will fall. Those subsequent movements are not captured in static economic models.

Not only are initial production and price impacts of limited duration, they are also quite misleading. Recent commodity price increases notwithstanding, primary goods over the long term show terms of trade losses compared to manufactured goods. The FAO has estimated the annual losses at 2% (FAO 2004). Agricultural trade policy reform does nothing to reverse this long-term trend. Demand grows mainly with population growth; the demand for food is inelastic because the human stomach is inelastic, as U.S. agricultural economist Willard Cochrane famously said (Cochrane and Levins 2003, pp. 74-5). Production grows faster, as technology raises yields and more land is brought into industrial production. Supply outstrips demand, driving prices down in a long-term trend that has shown brief interruptions but few hints of structural change.

For a given commodity that shows production-responsiveness to reform, we are likely to see a short-term price increase followed by a slow return to previous levels, or lower.

Drawing on a model that estimated price impacts of full global agricultural liberalization, taking into account these dynamic trends in commodities markets, we can see these tendencies clearly (IFPRI 2003).

Figure 1.

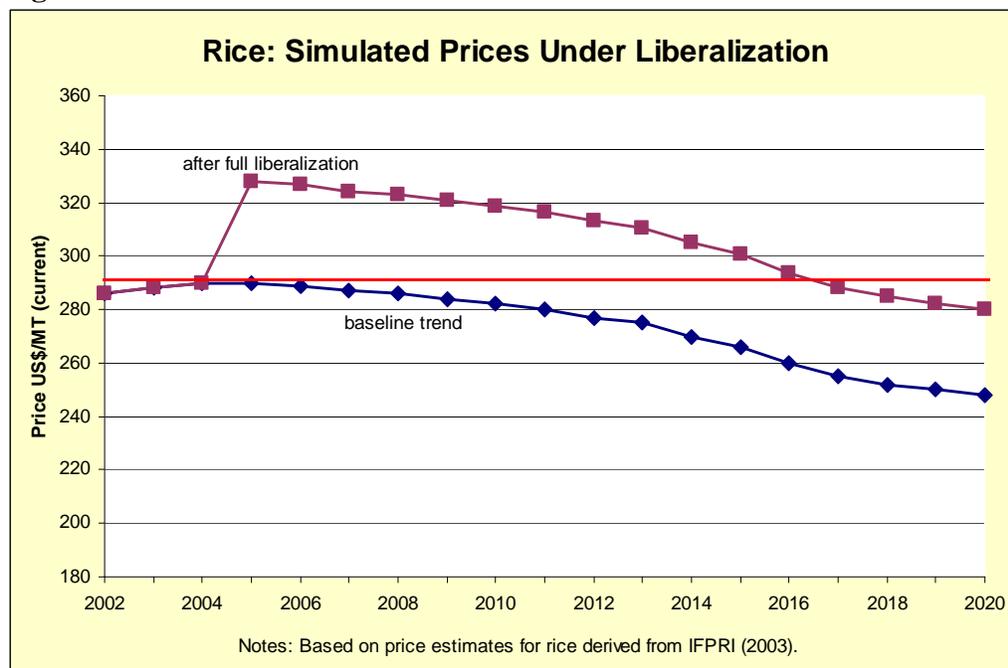


Figure 1 shows the projected impacts on global rice prices under a full liberalization scenario. The reform is assumed to take place in 2004. There is an immediate production impact, and global prices rise 18%. Generally, this is where many trade models leave off. Here, though, the commodity market is modeled into the future, to the year 2020, against the baseline assumption of no reform. The modelers still report that in 2020 rice prices are 13% above the baseline, suggesting a long-term benefit. But note:

1. The baseline assumption reflects a long-term downward trend in real prices. This is consistent with the terms of trade losses mentioned earlier.
2. The reform scenario shows the same downward trend, albeit from a slightly higher starting point after the reform. In other words, the reforms did nothing to reverse that trend.
3. Post-reform prices may remain higher than the baseline, but by 2016 they are below pre-reform levels. In other words, the benefits of an 18% price increase from full liberalization of international rice markets are gone by 2016. After 2016, prices are below pre-reform levels.
4. The scenario modeled here is for the unrealistic case of full liberalization. Partial liberalization, such as that under negotiation in the Doha Round, will produce partial impacts, with initial price adjustments more on the order of 5%. Prices will fall to their pre-reform level within five years in such partial liberalization scenarios, making any gains quite limited.

This analysis suggests that even for a commodity such as rice, which shows production-responsiveness to liberalization, the gains from such reforms are likely to be short-lived. Global commodities markets eventually adjust, with the most competitive producers expanding production, partly in response to the higher prices. For commodities markets that show little responsiveness to reform, such as maize and wheat, there is little short or long-term gain from Northern-country reductions in support.

Perhaps most important for developing countries, increasing one's dependence on primary production offers poor prospects for dynamic economic development. Economic development generally involves some process of industrialization, with a shift from primary production toward more value-added economic activities. Agricultural trade liberalization, to the extent it generates production impacts, tends to increase developing country dependence on low-value commodities exports. According to one recent study, the Doha Round is projected to decrease developing countries' terms of trade by .74%. Brazil, projected to be one of the big winners in the Doha Round largely because of its agricultural exports, sees its terms of trade decline .18% in the process (Polaski 2006).

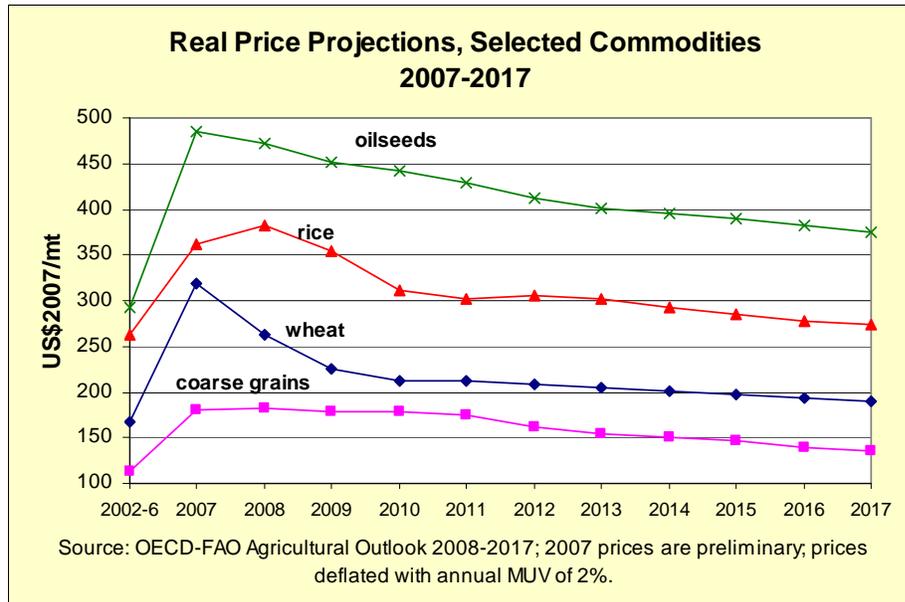
Will the "Commodity Boom" be Sustained?

The recent surge in prices for some commodities has had a decided economic impact on many commodity-exporting countries. Driven significantly but not exclusively by rising demand from China, the prices for many raw materials have increased to a degree not seen in many years. In agriculture, the bio-energy boom has fueled a run-up in prices for corn and other bio-energy crops, with a ripple effect on other commodities as land-use patterns shift.

The commodity boom has created incentives for countries to promote primary production as the engine of economic development. With China and other low-cost producers capturing the lion's share of manufacturing exports, commodities seem to offer a more promising path. The key question remains: How likely are global commodities markets to sustain demand beyond global production capacities? In agriculture, evidence suggests the boom will be longer than most cyclical swings but will not reverse the long-term trends toward declining prices. There is great volatility in commodity prices. The commodity boom appears in this context as a larger increase than we have seen in several years. But the overall trend was significantly down from 1980-2005. According to the FAO, real agricultural commodity prices declined 2% per year from 1960-2002 (FAO 2004, p. 10).

In this long-term context, the current agricultural commodity boom, driven by new demand for bio-fuels and rising demand for animal protein, fails to promise sustained high prices for farmers. Most projections show production again catching up to demand, albeit after several years rather than just one or two. Vast new tracts of land are being brought into production, more than enough to meet and exceed the increases in demand. Even for a crop like soybeans, in high demand both for animal feed and agro-fuels, real prices are projected to resume their downward trend after 2007 (OECD-FAO 2007). An estimated 13 million more hectares worldwide are projected to be planted in soybeans in the next decade, a jump of 14%. Not surprisingly, 11 million of those new soybean hectares are projected to be in Brazil, an increase of more than 50% (FAPRI 2007).

Figure 2.



In the long run, none of the new demands for agricultural products promises to resolve the tendency of agricultural production to meet and exceed demand. As long as there are significant tracts of arable land available to be brought into production, and as long as technological innovations continue to increase yields, global supplies will catch up with global demand. Just as markets adjust to trade liberalization, markets will adjust to changes in demand. Some countries stand to gain market share from such changes. But it remains an open question whether even those apparent “winners” in global agriculture end up as leaders in sustained and sustainable economic development.

New Sources of Demand, New Challenges

There is no question, though, that the recent surge in agricultural prices poses new challenges and opportunities. For farmers (if not society as a whole), the current upswing has two things going for it. First, it is driven by shifts in demand from vegetable to animal-based protein in growing parts of the world, especially China. It takes much less corn and soybeans to feed humans than it does to feed animals that can then be fed to humans. So demand increases faster than population growth for commodities used as animal feed. This is particularly true in the early stages of development, when the shift to meat-consumption is the most dramatic.

Second, demand for agricultural-based fuels is adding a large new source of demand to international markets. This too takes agriculture beyond the limited demands of a growing population for food, adding a non-food-based source of demand for what the land can produce.

Both new sources of demand present daunting challenges. Unless there are spectacular and unexpected increases in productivity, agriculture probably cannot sustain a world in which the majority of the population is deriving the bulk of its protein from meat. One cost of this transition is rising prices for staple foods, as we have seen recently. This is unsustainable even

in the short run for the world's poor, who will not view the long-run probability of lower crop prices with calm.

Similarly, most bio-fuels offer limited net environmental benefits while putting added pressure on land. With further industrialization of global agriculture, based on petroleum-based inputs, the world faces the prospect of farm prices increasingly tied to oil prices. Add to this panorama the land-use implications of climate change, which already threatens to render parts of the world unsuitable for grain production.

It is beyond the scope of this paper to address the complex issues of climate change, bio-fuels, and the so-called "food vs. fuel debate." But there is no doubt these factors will be decisive in the evolution of agricultural commodities markets.

The Perils of Liberalization for Family Farmers

If the promises of agricultural trade liberalization are exaggerated, the perils are very real. As case after case has shown, in a global market in which rich countries or a select few advanced developing countries dominate, liberalization leads to a flood of cheap imports, which undermine domestic producers previously protected by tariffs or other government supports. Employment in expanding sectors of the domestic economy generally does not grow fast enough to absorb new entrants into the workforce, never mind those displaced from traditional agriculture. The result is often a decline in livelihoods for the rural poor, a decrease in food security, and a rise in food dependency for the nation as a whole. Poor urban consumers may benefit from lower food prices, but it is doubtful that there is a net benefit to the nation from this trade-off.

Of course, displacing small-scale producers from the land is precisely the goal of this economic model. Smallholders are seen as hopelessly inefficient, and trade liberalization is intended to force inefficient farmers into more productive work. Often lost in the market calculations of efficiency, though, are the market failures that plague the sector. Smallholders are being asked to compete with low-priced imports from countries that not only subsidize their agricultural sectors but also offer adequate infrastructure, functioning credit markets, strong histories of research in applicable technologies, and the agricultural extension services to help farmers raise productivity. Smallholders in most of Latin America share few of these benefits. As U.N. researchers have noted, "free market rules in a context of highly concentrated property and imperfect and missing markets [lead] to the marginalization of otherwise perfectly viable enterprises" (David, Dirven et al. 2000, p. 1685).

Trade liberalization globalizes not only markets, it globalizes market failure. Bringing smallholders into unmediated competition with subsidized and supported industrialized producers from the global North places millions of productive farmers – and food-producers – at risk.

Conclusion: Alternatives to Liberalization

For most developing countries, agricultural trade liberalization holds limited promises and great perils. The promise is limited because the comparative advantages of the global South in export

agriculture are quite limited. Liberalization will only significantly reduce Northern production in a limited number of commodities, most notably cotton and rice, and perhaps soybeans and sugar.

Even where liberalization produces openings, other rich countries or developing countries with advanced agro-industrial sectors sit poised to win the intense competition for those markets. In soybeans, Brazil and Argentina will dominate. Brazil is likely to capture any new market share in sugar. In cotton, many developing countries – including an important group of West African producers – could benefit, but they will be hard-pressed to beat Brazil, Australia, and maybe India. In rice, Thailand, India, and Pakistan could show significant gains.

Perhaps most important, liberalization does not reverse the long-term tendencies toward lower real prices for agricultural commodities. Even in markets where liberalization produces production and price impacts, the gains will be ephemeral as new land is brought into production, yields continue to rise, and global supply catches up with global demand.

Meanwhile, small producers, primarily of staple crops, bear the brunt of economic adjustment. Left unprotected and unsupported, they see prices for their goods fall, markets they used to sell to are captured by conglomerates, and few new job opportunities emerge to sustain their families.

There are alternatives to liberalization. Recent work by the FAO documents that liberalization is not always the economically optimal policy, that different levels of import protection are appropriate at different levels of development (Morrison and Sarris 2007). In fact, recent research suggests that many countries could benefit from “food first” policies that give priority to domestic food production and internal market development over the pursuit of export markets (Morrissey 2007). In contrast to many barriers most developing country producers face in highly competitive export markets, domestic food markets tend to show stable growth. Demand grows with population, generally at a fairly predictable rate. Where liberalization opens access to that stable and growing market to international agribusiness, continued protection can reserve an important portion of the domestic market for domestic producers. With appropriate government-supported credit and investment, small-scale producers can increase their productivity to meet the rising demand for their goods.

Such policies seem even more urgent in light of the current food crises in developing countries. Fortunately, there is a growing awareness that the kind of one-size-fits-all liberalization that has dominated official policy for the last 25 years has failed to generate either development or food security. The World Bank’s recent *World Development Report 2008* is an important indicator that a shift in priorities is warranted, one that sees the potential for export-led agricultural development but recognizes the continued importance of domestic agriculture and the smallholders on which it often rests (World Bank 2007).

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