CHAPTER 3

MAKING AGRICULTURAL TRADE REFORM WORK FOR THE POOR

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INTRODUCTION

With almost 800 million people in the developing world suffering from chronic hunger and a total of 1.2 billion people living on less than a dollar a day, poverty remains the greatest failure of the contemporary global economy, as well as the greatest challenge facing the global polity. Past efforts to focus official development assistance and debt relief on poverty alleviation are noble, but it is clear that solutions must look beyond aid to produce meaningful progress. Though foreign aid clearly has a role to play, it cannot be the primary means for sustainable economic development because it alone cannot enlarge the opportunities for economic growth. And without economic growth in developing countries, it is impossible to lift nations, and people, out of poverty.

With agriculture at the heart of current WTO negotiations, much is at stake for the rural poor. There is, however, a great deal of controversy surrounding the role that agricultural trade reforms can play in alleviating poverty and increasing food security. Most economists agree that economies that are more open to trade and investment grow faster than closed economies, and that robust economic growth is the only way to lift people out of poverty. But opponents of trade reforms for developing countries do not agree that open economies grow more rapidly than closed economies, nor do they believe that trade and investment-led economic growth alleviate poverty. Many believe that more open trade and investment regimes exacerbate poverty – particularly in developing countries and especially in agriculture.

This debate is at the centre of the Doha Round trade negotiations. While much of the trade debate has focused on reducing trade-distorting subsidies and improving

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market access in developed countries, increasingly developing countries are being asked to open their markets, mainly by lowering their tariff barriers. Developing countries have resisted opening their markets for fear of hurting their farmers. Both developed and developing countries have obtained many exemptions and exceptions (in the form of Sensitive and Special Products) in the market access negotiations. In general, tariff measures are a poor means of helping subsistence farmers. They tend to raise food prices, which harms consumers, and they do nothing to improve farmers' productivity or competitiveness. In many cases, tariffs become a wall for politicians to hide behind, rather than make the investments in rural infrastructure, in communications, in research and extension that will really improve the livelihoods of subsistence farmers.

This paper brings together what is known about the link between agricultural trade reform and poverty alleviation and about how developing countries can successfully manage to open their economies while reducing poverty. It highlights the channels that link agricultural growth, rural development and poverty alleviation with trade. It discusses the potential welfare impacts of policy reform and examines the recent trends of open trade in developing countries. Finally, the paper identifies policy reforms, investments and flanking measures that could be effective in combating poverty in conjunction with a more open trade policy.

AGRICULTURE AND POVERTY

For subsistence farmers, agriculture and the agri-food sector represent the dominant source of potential income and employment. In developing countries, agriculture employs almost three-quarters of the population and accounts for about half of the Gross Domestic Product (GDP). In the poorest of these countries, over three-quarters of the population live on less than two dollars a day – a proportion that is not expected to change and, in some regions, will only grow worse without significant changes in domestic and trade policies (Table 1). Counter-intuitively,

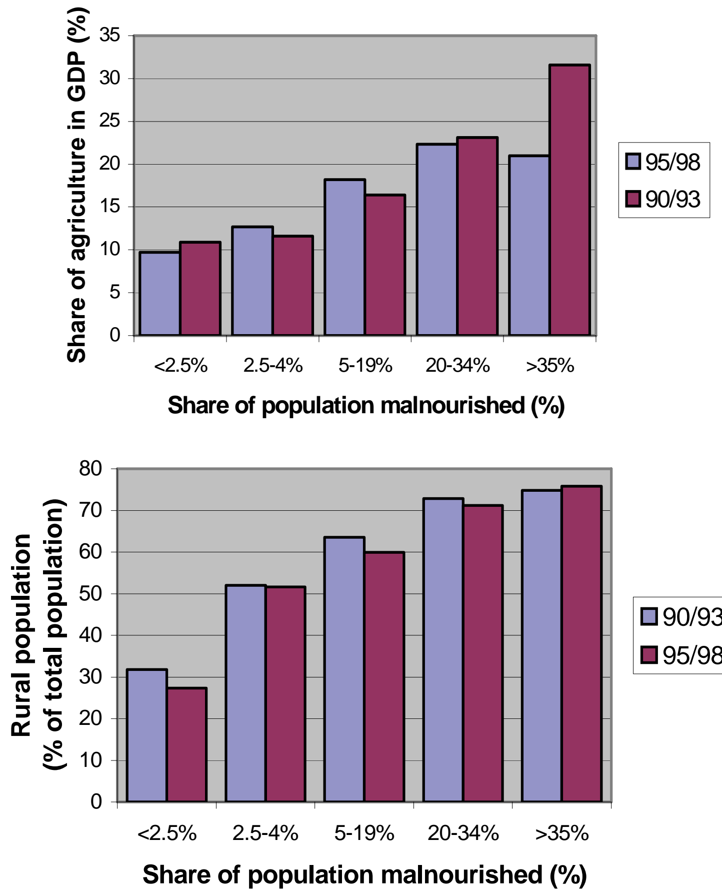
Table 1. *Share of population living on less than $2 per day*

	2001 (%)	Projected for 2008 (%)
East Asia/Pacific	47	32
South Asia	77	72
Eastern Europe/Central Asia	20	21
Latin America/Caribbean	25	39
Middle East/North Africa	23	22
Sub-Saharan Africa	77	77

Source: World Bank: World Development Indicators 2005

subsistence farming cannot solve the most basic needs for food security. While some may assume that such a heavy reliance on farming provides some degree of food security, in fact the opposite holds true. Developing countries deriving a large share

of their GDP and employment from the agricultural sector tend to have higher rates of poverty, hunger and malnutrition (Figure 1).



Source: World Bank: World Development Indicators and FAO calculations

Figure 1. *The importance of the agricultural sector in developing countries by prevalence of the undernourishment category (1990-1993 and 1995-1998)*

TRADE AND ECONOMIC GROWTH

Trade has the potential to lift developing nations out of poverty on a scale that could generate several times any conceivable benefits derived from direct monetary aid. The links between trade and economic growth operate through various channels, including changing the relative prices of tradable goods and the incentives for investment and innovation. Trade acts as a catalyst for economic growth by encouraging investment, efficiently allocating resources and opening markets for

those goods that people can produce most competitively. It is important that agriculture participate in this process, because agriculture is the dominant industry in most developing countries; the rural poor make up 75% of the total population in the developing world and suffer the most from deficiencies in capital and technology (FAO et al. 2002).

There is strong evidence that open-trade regimes (and more generally open economies) are associated with higher rates of economic growth. On average, open economies grew 3.5% annually versus closed economies, which grew at less than 1% annually (Berg and Krueger 2003). Over time, the difference in these two growth rates on the level of incomes is stunning: at a one-percent growth rate, it takes 62 years for incomes to double; at 3.5 %, incomes will increase 16 times in 62 years. Even a small annual difference in growth rates can be dramatic over the long term.

International trade allows counties to specialize in activities where they hold a comparative advantage. Trade extends the market facing local producers, allowing them to take advantage of economies of scale. Trade encourages more efficient allocation of resources and thereby raises incomes, since finding new and better ways of using land, labour and capital is vital to economic growth.

Openness to international trade is also closely linked to a supportive investment climate (both foreign and domestic), which is positively correlated with economic growth (Table 2). When markets are freed up, private investors see greater opportunity and reduced uncertainty where previous barriers may have restricted their business. Private investment brings intellectual capital and technology, and can also nudge other aspects of social infrastructure in a positive direction. Openness to trade also strengthens the financial services sector, which can better mobilize resources for domestic and foreign direct investment. The effects of trade on investment are often overlooked in models because they involve a more complicated analysis and investor decisions are often difficult to predict. Yet this linkage is vital to the development of a modern economy.

Growth and investment in the agricultural and agri-food sector has an especially important role to play in poverty alleviation because the benefits of increased primary agricultural production spill beyond the sector and spur more general economic growth. First, there is the direct impact of agricultural growth on farm incomes, which account for a large share of the GDP in developing countries. Second, these spin-offs or multiplier effects expand other economic activities because of strong linkages with other sectors. An additional dollar of income in the rural sector generated an additional three dollars in rural income through increased demand for rural goods and services (Watkins 2003). More jobs are created in agricultural-related industries and in the non-farm sector as farmers spend additional income. Third, there are national impacts, including lower prices for food and raw materials to the urban poor, increased savings, and reduced food imports or foreign exchange costs. Therefore, even poor and landless workers who may be net buyers of food benefit from the indirect effects of trade reform through higher wages and an increased demand for unskilled labour.

Table 2. *Trade, investment, education key sources of economic growth 1960-2000*

	1960-1973		1973-1985		1985-2000	
	Fast growers (%)	Slow growers (%)	Fast growers (%)	Slow growers (%)	Fast growers (%)	Slow growers (%)
Per capita income growth	5	1	3	-1	3	0
Share of investment/ GDP	24	11	21	14	18	12
Ratio of trade/GDP	63	44	72	58	79	64
Primary-school enrollment rate			87	74	98	87
Secondary-school enrollment rate			38	29	60	36

Source: WTO: World Trade Report 2003

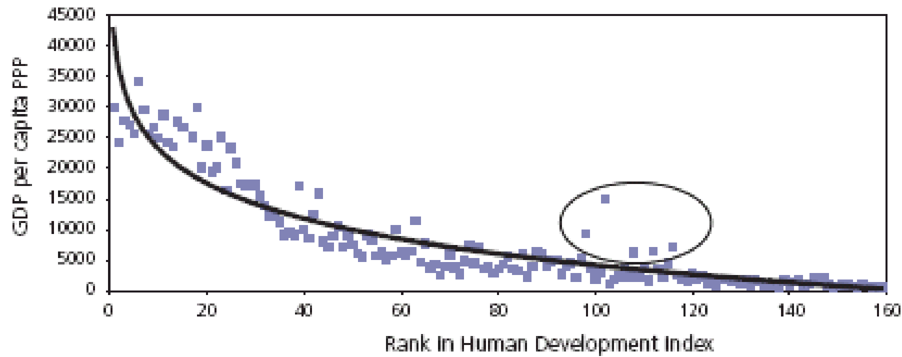
In addition, countries that are more open to trade often boast other policies that support macroeconomic stability and development. The agricultural sector in particular requires clear property rights, more research and improved infrastructure to increase competitiveness. These investments are often forthcoming once the economic potential becomes apparent.

ECONOMIC GROWTH AND POVERTY

Economic growth is not an end in itself, but a means to poverty alleviation and the general improvement of people's lives. There is a strong correlation between per capita income and how a country ranks on the Human Development Index (Figure 2)[1]. In fact, many of the outliers (circled in Figure 2) are countries in sub-Saharan Africa, where decreased life expectancy and other health impacts, caused by the AIDS epidemic, have hindered the countries' ability to prosper.

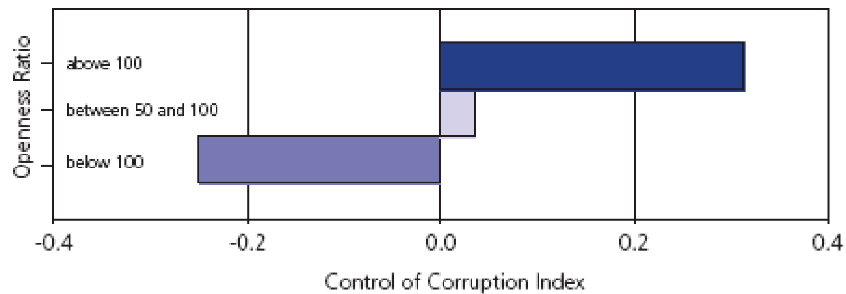
In recent years, improved governance has become a centrepiece of national development strategies. The role of open trade regimes in improving governance is often overlooked. One of the biggest challenges for developing countries is pervasive corruption. Corruption is driven by rent-seeking behaviour, which pervades in the absence of the rule of law and accountable systems of governance. When trade barriers are high, or where import and export quotas are in place, merchants resort to bribery to subvert high tariffs or to buy import and export licenses. Generally, corruption favours the rich and well-connected, who have the means and access to bribe government officials, and hurts the poor, who are often its victims (Berg and Krueger 2003). Corruption is significantly reduced under open

trade regimes (Figure 3). There is also a strong correlation between openness to trade and the rule of law (Figure 4).



Source: WTO: World Trade Report 2003

***Figure 2**. Higher incomes lead to higher welfare*



Source: World Trade Report 2003

***Figure 3**. Open economies face reduced corruption*[2]

ECONOMIC GROWTH AND POVERTY ALLEVIATION

Whether economic growth leads to poverty reduction is questioned by many of those who oppose trade reforms. They argue that economic growth does not necessarily improve the lives of the poor. But, a 2000 study of 80 developing countries over the past 40 years demonstrates that the income of the poorest 20% of the population in developing countries increased dollar for dollar with increases in per capita GDP (Dollar and Kraay 2000). Other studies concurred: finding that a one-percent increase in income in developing countries lowers the poverty rate by 1 to 3% (Watkins 2003; Berg and Krueger 2003).

Economic growth can alleviate poverty but not necessarily improve income distribution. China's recent growth is a classic example. There is no question that

economic growth has raised many Chinese out of poverty, but it is also true that income distribution in China has worsened. Increasing inequity in income distribution can have adverse consequences. It may, for example, spur unsustainable rural–urban migration, creating social and political problems that may need to be addressed.

Source: World Trade Report 2003

Figure 4. *…. and greater rule of law*[3]

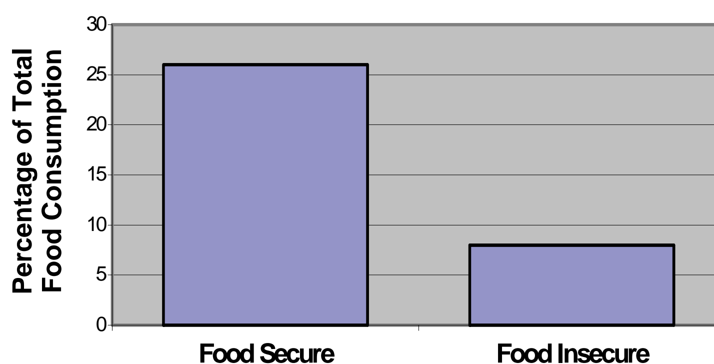
If income inequality increases, it does not necessarily mean that the poor are absolutely worse off. The poor may be relatively worse off, but absolutely better off as a result of economic growth. For example, trade reform in Bangladesh led to an increase in income inequality, but the percentage of people living below the poverty line fell from 28 to 25%. Similarly, income inequality increased while Chile was opening its market to international trade, but the proportion of people living in poverty fell from 17 to 6% over the span of 16 years (Winters 2002). The case of East Asia is similar. In the mid-1970s, six of every ten people in East Asia lived in extreme poverty. Today, fewer than two in ten live in extreme poverty. The absolute number of people living on less than a dollar a day in the region has fallen from 720 million to 278 million. Average incomes have grown by 5% annually, resulting in a doubling of per capita income every 14 years. This growth was mostly associated with rising exports, which drove the demand for goods in labour intensive manufacturing and generated foreign exchange.

It is important to distinguish between relative and absolute poverty. If poverty is defined as a relative concept, then every country faces some degree of poverty – there are certainly poor people in the United States, but on a relative scale the poor in the US are well-off compared to the poor in Africa or Asia. In the context of development goals, the concept of absolute poverty becomes much more significant because it refers to the ability of families to meet minimum consumption needs, without reference to the income or consumption levels of the general population. The first goal of development should be to reduce the level of absolute poverty.

TRADE AND FOOD SECURITY

The stability of food consumption is a particular concern for developing countries, and for poor households in developing countries. At the national level, the proportion of malnourished people and underweight children tends to be lower in countries where agricultural trade in proportion to agricultural production is large. The fact that farmers currently produce 17% more calories per person today than they did 30 years ago, despite a 70-percent population increase, demonstrates that hunger is a problem of income and access, not global availability (FAO et al. 2002).

Weak access to and integration with international markets limits the ability of countries with widespread hunger to import enough food to compensate for domestic production shortfalls. Figure 5 shows that countries with high incidences of malnourishment import less than 10% of their food, compared to more than 25% in countries with greater food security. According to a 2003 study by the FAO, "The relative isolation from international trade appears to be more a measure of vulnerability than of self-sufficiency" (FAO 2003, p. 18). Access to foreign markets can serve as an insurance policy during production shortfalls, because trade balances domestic production with imports. Trade reduces variability in consumption, as countries are not dependent only on their own highly variable production levels (Diao et al. 2003). (Clearly, increased dependence on trade is partly a function of higher incomes that lead to higher demand for food, and allow consumers to diversify their diets with imported foodstuffs. But, for those who argue that imports are a sign of food insecurity, more often than not the reverse is true.)



Source: FAO 2003

Figure 5*. Food-secure countries import more than food-insecure countries*

Tariffs and other border measures are often justified on grounds of food security. But tariffs are a poor way to improve food security for society overall (Table 3). While farmers and landowners are better off in terms of access to local food and potentially higher incomes, they are worse off because of higher food prices and limited access to imported food in times of domestic shortfall. (Most subsistence farmers consume more food than they produce, and so are not helped overall by

higher commodity prices.) However, the effectiveness of border measures also depends on whether or not the higher prices actually reach poor farmers in rural areas. In many developing countries, the price at the border has virtually no impact in rural areas because of poor infrastructure and poor internal marketing, so tariff measures have a negative impact on urban consumers but little positive impact on subsistence farmers.

Since many of the rural poor are subsistence farmers or altogether landless with little or no surplus crop to sell, the higher prices resulting from tariffs become ineffective when times are good and render them completely dependent on food aid during shortfalls. (Food aid often depresses domestic prices, so that even those local farmers that can manage during the bad times benefit less than they should from protectionist domestic policies.)

Table 3. *Commodity-dependent countries face higher rates of malnutrition*

	Per capita food consumption	**Incidence of undernourishment**	**Probability of consumption shortfall**
Single-commodity-dependent exporters	2314	36%	22%
Non-commodity-dependent countries	2285	22%	15%
China	2972	9%	1%
India	2493	24%	8%
All low-income, food-deficit countries	2317	19%	16%

Source: Pingali and Stringer 2003

Lower trade barriers – to both developed and developing country markets – can also help countries diversify their agricultural base. Farmers that have access to developed country and to neighbouring markets can afford to diversify out of staple crops by growing commercial crops. Countries with more diverse agricultural sectors tend to be more food secure. Those countries that depend on a single agricultural export face low food consumption (2300 calories per capita/day), high prevalence of undernourishment (36%) and a relatively high probability of a consumption shortfall (Table 3). Where agricultural sectors are more diversified, there is a lower probability of variations in consumption. As beneficial as preferential access schemes extended by some OECD countries may seem, they have contributed to narrowing the scope of agricultural production for many developing countries. Though such agreements have offered better market access to certain poor countries for specific products, they have done so at the cost of diversified agriculture. Preferential treatment can also mislead producers into growing crops for which they might not be competitive otherwise, at the expense of other crops. Dependency on a single commodity such as sugar or coffee is a particular challenge for several countries in Latin and South America. (There has been a great deal of controversy in the WTO negotiations over the impact of lower developed country sugar tariffs on preference holding countries. Clearly, in the short term, these countries will lose from lower sugar prices in rich country markets. But

they will gain from higher world sugar prices, and over time, they will gain as they diversify out of sugar into other crops or other economic activities.)

TRADE NEGOTIATIONS

The Doha Development Round of WTO negotiations has centred on the need for developed countries to reduce trade distorting domestic subsidies; phase out subsidized export competition; and open up markets by reducing tariffs and increasing import quotas. The extent of trade reform required of developing countries has received far less attention. Unlike the developed countries, developing countries rely almost exclusively on tariffs to protect their domestic markets. Few developing countries have the financial resources to offer direct subsidies to their farmers.

Numerous economic studies have examined the economic benefits of trade reform and, while different methodologies have produced a range of resulting effects, the direction of these effects has consistently shown overall welfare gains from trade. Estimates for the total economic gains from eliminating OECD agricultural protection range from $8 billion to $26 billion. Estimates of the benefits for developing countries from multilateral reform range from $2.6 billion to $21.5 billion (Beierle and Diaz-Bonilla 2003).

Table 4. *Rich-country trade reforms increase income to developing countries (increase in millions of US dollars)*

Changes in agricultural trade policies by:	United States only	European Union only	Japan/Korea only	All industrialized countries
Sub-Saharan Africa	$455	$1,290	$150	$1,945
Asia	$2,186	$2,099	$2,346	$6,624
Latin America and the Caribbean	$2,896	$4,480	$607	$8,258
Other developing countries	$1,148	$5,069	$339	$6,659
All developing countries	$6,684	$12,936	$3442	$23,486

Source: IFPRI 2003

Most economic studies also find that the impact from multilateral trade reform on developing country welfare and food security is positive. For example, a study by the International Food Policy Research Institute (IFPRI), released just prior to the Cancun Ministerial, showed significant gains to developing countries from the complete elimination of trade distorting subsidies and tariff barriers in developed countries (Table 4)[4].

According to the IFPRI report, global benefit to all developing countries was $23.4 billion, with Latin American and Asian countries gaining the most and even sub-Saharan Africa gaining almost $2 billion in additional income (Diao et al.

2003). Table 5 details these results for select countries as a relative annual increase in income.

Table 5*. Rich country trade reforms increase income to farmers and the agricultural sector (percentage increase)*

	Removal of all OECD subsidies and border protection
Argentina	3
Brazil	3
China	2
India	1
East Asia (rest)	1
Latin America (rest)	8 (1-15% range)
Sub-Saharan Africa	9 (3-15% range)

Source: IFPRI 2003

A study completed for the World Bank that includes dynamic benefits due to increased domestic/foreign investment and innovation illustrates that income would increase up to 80% in Argentina and 57% in sub-Saharan Africa over 15 years (Table 6).

Table 6*. Multilateral trade reforms increase incomes to developing countries (percent change from baseline in 2015)*

Countries/Policies	Removal of all subsidies and border protection	Removal of border protection only
Argentina	80	44
Brazil	32	17
China	-4	7
India	23	16
East Asia (rest)	7	6
Latin America (rest)	72	65
Sub-Saharan Africa	57	52

Source: Beghin et al. 2002

Whether reductions in trade distorting subsidies will benefit the poorest developing countries depends on the composition of their agricultural production. For example, 90% of Africa’s exports are in ten commodities (cocoa, coffee, cotton, tobacco, sugar, tea, palm oil, rubber, bananas and peanuts) (Beierle and Diaz-Bonilla 2003). Some of these products compete with subsidized temperate zone products on

export markets, but many do not. Reducing distortions in products such as sugar, peanuts tobacco and cotton, which are highly protected in OECD markets, would benefit African exporters. (Although, as noted above, some preference holders would lose from sugar policy reforms in the short term, but would gain over the longer term.) In other cases, African smallholders compete with subsidized imports, such as maize, which are dumped into their domestic markets. OECD policies tend to depress prices in the range of 5 to 20%, thereby allowing producers to 'dump' goods onto the international market. In such cases, improved trade rules would help African farmers who cannot compete with these products in the domestic market. The removal of trade distorting OECD subsidies that encourage dumping would tend to boost agricultural prices, substantially in some cases.

Accordingly, most economic studies predict that commodity prices will also rise following multilateral reform. (However, even if trade reforms raise commodity prices above the subsidy-depressed levels prevalent today, trade reform would not reverse the long-term decline of commodity prices.) Price increases are expected to be sharper for commodities that low-income net-food-importing countries must import, than for the commodities they export (FAO 2003). Price increases will therefore tend to help commercial farmers and exporting countries, and tend to disadvantage subsistence farmers and importing countries, depending on what the country produces and consumes, how domestic prices change, and whether the country is a net importer or exporter.

Subsidies benefit net food importers in the short term by depressing prices of food imports. By raising world market prices, subsidy cuts will increase the price of imported staples (rice, wheat and other grains) that are heavily subsidized by OECD countries. However, these price increases are expected to be relatively small. An IMF study predicts that removing all policy distortions would increase the price of seven out of ten commodities by less than 4%, with large increases for the other three: milk (24%), refined sugar (8%) and sheep meat (22%) (Tokarick 2003). Removal of production and input subsidies alone increase prices by less than 2% (Table 7). And, because subsidies will be phased out over a long time frame, the increase in prices due to trade reform will likely be overshadowed by annual fluctuations in demand and supply.

Least Developed Countries are more likely to benefit from subsidy cuts than other developing countries. On average, 18% of their exports are subsidized by at least one OECD member (compared with 4% of exports by other higher-income developing countries), meaning LDCs are competing against OECD governments more often than highly developed countries. For example, Benin, Burkina Faso, Chad, Malawi, Mali, Rwanda, Sudan, Tanzania, Uganda and Zimbabwe have 60 to 80% of their total exports subsidized by one or more WTO members. On the other hand, 9% of LDC imports involve products subsidized by OECD countries, compared to only 4% of the imports of other developing countries (Hoekman et al. 2002).

Table 7. *Commodity prices increase as a result of trade reforms (percent change from baseline in 2015*)

Commodities/Policies	Removal of all subsidies and border protection	Removal of border protection only
Paddy rice	6	4
Wheat	12	2
Horticultural products	0	0
Oilseeds	8	1
Refined sugar	9	8
Beef	10	2
Dairy products	8	6

Source: Beghin et al. 2002

Counter to most press coverage of the Doha Development Round, many studies indicate that for most developing countries, reducing developed and developing country tariffs is more important than reducing developed country domestic subsidies. Reducing tariffs generates significantly higher benefits in these studies than lowering subsidies, in part because both developed and developing countries rely on tariffs, while only developed countries use subsidies. Therefore, on a global scale, markets are more distorted by tariffs than by subsidies – and removing those distortions will generate across the board economic benefits. Moreover, even though developed countries have far higher subsidies than developing countries, developing countries have higher tariffs than developed countries. (This is not to argue that reducing trade distorting subsidies is not important. These subsidies do depress global prices, and they provide a rationale for many developing countries to maintain high tariffs against subsidized competition. For both political and economic reasons, these trade distorting subsidies should be reduced, and ultimately phased out.)

Studies by the OECD and the IMF support this conclusion: the impact of tariffs is much more deleterious than the impact of subsidies on developing countries. An IMF study cautions that scraping subsidies without complementary cuts to tariffs would help big developing exporters such as Brazil, Argentina and, to some extent, China and India, but would harm the rest of the developing world. It estimates that South Asia would be $164 million worse, sub-Saharan Africa would suffer a $420 million loss and North Africa and the Middle East would lose the most at $2.9 billion. By contrast, the same study predicts that eliminating all developed country tariffs on agricultural imports would produce a total welfare gain of $91 billion and no countries would be harmed (Tokarick 2003). Table 8 illustrates the results of various studies, supporting the IMF's findings and indicating a more general consensus that removing OECD tariffs by themselves boosts the incomes of LDCs.

Table 8*. All studies show developing countries gain from reform*

Authors	Reforms analysed	Global effect ($US billion)	Developing countries ($US billion)
Diao et al. (2001)	(i) Removing all agricultural supports and protections	31	3
	(ii) Removing all tariffs	25	6
	(iii) Removing domestic supports in the developed countries	3	-2
	(iv) Removing export subsidies, worldwide	0	-2
Hertel et al. (1999)	(i) 40% reduction in all agricultural protection	70	15
	(ii) Same excluding production subsidies	60	15
Francois et al. (2003)	(i) Full liberalization of border measures	97	25
	(ii) Liberalization of OECD border measures	39	4
	(iii) Liberalization of non-OECD border measures	59	21
	(iv) Full liberalization of OECD domestic support	12	-2
Anderson et al. 2000)	(i) Full liberalization of all protection	165	43
	(ii) Full liberalization of all protection in OECD	122	31
	(iii) Full liberalization of all protection in non-OECD	43	12
Brown et al. (2001)	33% reduction in post-Uruguay protection of agriculture	-3	-16
Dee and Hanslow (2000)	Elimination of all post-Uruguay trade barriers in agriculture	50	
UNCTAD (2003)	(i) 50% cut in all agricultural tariffs	22	10
	(ii) Elimination of export subsidies in agriculture	-2	-6
	(iii) Tariffs are reduced by 50% on processed agriculture	12	6
Dimaranan et al. (2003)	(i) 50% reduction in OECD domestic support	---	-0.4
Hoekman et al. (2002)	(i) 50% cut in all agricultural tariffs	14	2
	(ii) 50% cut in domestic support	0.3	-0.2

Source: Charlton and Stiglitz 2005

While the prevailing wisdom has been that developed country reforms are good for developing countries, and developing country liberalization is good for developed countries, the opposite is in fact truer: each group of countries benefits most from its own liberalization, not from liberalization by the other group. A recent study demonstrates that developing countries benefit even more from reducing their own tariffs than from a reduction in OECD tariffs, because high tariffs raise food prices to consumers and limit opportunities for other developing countries (Table 9) (Anderson 2004). Another study reinforces this point, arguing that anticipated Doha

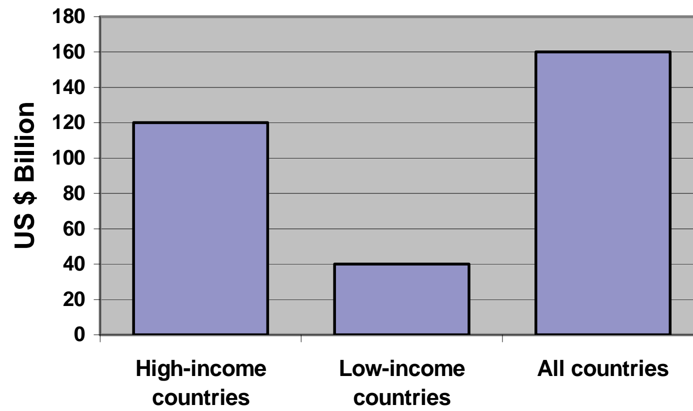
reforms are less poverty-friendly than full liberalization because they do not envisage meaningful cuts in developing country tariffs (Hertel and Winters 2005). The lion's share of the gains accrue to the liberalizers themselves, and if developing countries want to maximize their benefits from trade negotiations, their first best solution is to free up their own agricultural markets, mainly by cutting tariffs. About three-quarters of the benefits that come from developing country trade reform will stay with them, while only 10% of the benefits from developed country reforms would accrue to developing countries (Table 9). These results reflect the importance of own country reform and the expansion of South-South trade – trade among developing countries – in the overall scheme of trade liberalization.

Table 9*. Low-income and developed countries benefit from their own reforms distribution of gains from full trade liberalization (in 1995 US$ billion)*

Liberalizing region		**Agriculture and food**	**Other primary**	**Textiles and clothing**	**Other manufactures**	**Total**
Region	*Benefiting region*					
High income						
	High income	110.5 (90%)	0.0	-5.7	-8.1	96.6
	Low income	11.6 (10%)	0.1	9.0	22.3	43.1
	Total	122.1 (100%)	0.0	3.3	14.2	139.7
Low income						
	High income	11.2 (26%)	0.2	10.5	27.7	49.6
	Low income	31.4 (74%)	2.5	3.6	27.6	65.1
	Total	42.6 (100%)	2.7	14.1	55.3	114.7
All countries						
	High income	121.7 (74%)	0.1	4.8	19.6	146.2
	Low income	43.0 (26%)	2.7	12.6	49.9	108.1
	Total	164.7 (100%)	2.8	17.4	69.5	254.3

Source: Anderson, 2004

IMF and OECD analyses confirm these results. Although the dollar gains are smaller in absolute terms when compared to the gains that accrue to rich countries, they are far greater as a percentage of developing-country GDP. Anderson puts these gains at 1.9% of GDP for developing countries, over three times the expected gains for rich countries (2004).



Source: OECD, 2003

Figure 6. *Developed, developing countries gain from agricultural trade reform*

High tariff and non-tariff barriers between developing countries inhibit the potential for South-South trade, and thus the ability for developing countries to help each other. South-South trade can reduce the dependence of the South on the North; to encourage diversification of production in the South; and to capitalize on geographic proximity. Goods produced in the South may also be better suited for neighbouring markets with similar income levels, tastes, cultures and regulatory systems. In terms of improved productivity, South-South trade offers opportunity for developing countries to introduce new technologies and resources through other neighbouring developing countries where FDI is steadily rising, thereby offering each other mutual support. (Reducing tariffs in developing countries across the board is more beneficial than creating regional customs unions in developing countries which result in trade diversion. However, along with cutting tariffs, South-South trade will need to be accompanied by reforms in custom procedures and regulatory measures.

A final argument against reducing tariffs in developing counties is that developing countries rely on tariffs to generate revenues. In many developing countries, tariff revenues comprise a significant share of government resources. Twenty-five developing countries derive 30% of their total tax revenue from tariffs, according to an IMF study. Lowering these tariffs may deprive governments of much needed funds. But, if tariffs are reduced, overall trade volumes are likely to expand, potentially cancelling out the reduction in tariff levels. The increased growth generated by more open trade may provide governments with higher net tariff revenues. Also, high tariffs drive trade underground onto the black or the grey market, something that is already a problem in many developing countries (Bannister and Thugge 2001). Lowering these tariffs may in fact bring some trade from the 'informal' back to the formal sector. Third, there are no guarantees that

these government revenues are used to benefit rural sectors, and fourth, high tariffs may contribute to corruption as traders seek to avoid paying these taxes.

TRADE REFORM AND DOMESTIC POLICY

Since the poor in most developing countries are subsistence farmers who live in rural areas, it is vital that trade reforms be coupled with domestic policy reforms and financial assistance to ease the transition and facilitate the adjustment. Trade exerts a positive impact on economic growth because it serves as conduit for new ideas, new technology, and competition, which drives innovation and increases productivity. However, if markets are missing or do not function properly, then shifts in relative prices (i.e. from tariff cuts) will not lead to a shift of production, jobs and investment. Similarly, the lack of good roads, ports, telecommunications and marketing infrastructure can hamper a country's ability to participate in and benefit from international trade. Some of these conditions are inherited from geography; some are the result of inadequate or misguided investments, and others are relics of colonial rule.

For poor people to benefit from reform, they must be able to participate in markets. Policies that enhance their ability to participate in the formal market will ease the transition to reform. Where markets have been liberalized without accompanying policy reforms and investments (such as improved roads, improved communications, marketing infrastructure), the impact on food security and poverty has been detrimental. Complementary policies must also ensure that reform has a positive effect on people living in rural areas, not just urban centres or favoured areas. The links between poverty and other national policies in education, health, land reforms, micro-credit, infrastructure and governance are as important as border measures.

Trade is not a cure-all for poverty and slow growth, and to some extent it is unfortunate that the name Doha 'Development' Round has led to overly ambitious expectations about the results of trade reform alone. As the WTO's 2003 World Trade Report acknowledges, open trade must be part of a constellation of policies that are pro-growth; macroeconomic stability, reliable infrastructure, transparency, predictability, functioning domestic markets, and a good investment climate all advance the gains of economic efficiency from reduced trade barriers. The common thread behind these reforms is creating flexibility in factor markets – labour, land and capital – that allows the economy to grow.

Labour. The flexibility of labour markets is critical to how trade reform will affect poverty. If firms cannot adjust their work force because of labour regulations, then most of the adjustment to trade will come in the form of changes in wages to already employed workers. If workers can move from one sector to another, or if there is a minimum wage in place, then the adjustment will come in the form of changes in the level of employment.

For example, there are 749 products that are reserved for small-scale firms in India. Other tax exemptions and production subsidies also favour small-scale

producers. These policies prevent firms from growing and ultimately from competing in the export market. While in the short term such regulations may keep excess labour employed (in fact, Indian firms say they have 17% more labour than they need), over the longer term these regulations inhibit economic growth and employment generation (Stern 2002). Other evidence suggests that the entry rates of firms into liberalized sectors of the economy are 20% higher than into closed sectors of the economy, leading to higher job creation (Berg and Krueger 2003).

In rural areas of most developing countries, the labour market is very flexible and highly responsive, although unskilled. For the rural poor, adjustments to trade reform will take place largely through changes in employment levels. Trade reforms that turn the terms of trade against agriculture will lead to higher unemployment in rural areas. If trade reform improves the agricultural terms of trade, then the likely result will be higher rural employment, benefiting the poor. For example, reforms in East Asia improved the terms of trade for farmers, while reforms in Central Europe turned the terms of trade against farmers. As a result, agricultural output rose in Asia, and it fell in Central Europe, with predictable consequences for the rural sector. (It should be pointed out that, prior to undertaking these reforms, in neither East Asia nor in Central Europe did agricultural prices or input prices reflect the market. The direction of reforms in both sets of countries moved the market towards a more 'rational' allocation of resources in the rural sector.)

Countries such as China and Taiwan realized the need for institutions that enhance the productivity of rural labour, and that the process of poverty alleviation begins in agriculture. But, they also recognized that agriculture is not a long-term solution. Policies must accommodate demographic shifts; particularly in easing the rural–urban transition. There is a high correlation between education and poverty alleviation because education can go a long way in easing movements between rural and urban areas and from agriculture to other sectors. In general, the best way to improve conditions for the poor continually is to expand their opportunities for productive and remunerative employment, including schemes that promote entrepreneurship and innovation.

Land. Initial land distribution and economic structure influences the impact of trade reform on the different groups in society. For example, declining growth rates in South America, coupled with uneven land distribution, has particularly hurt the poor. And, while agriculture should have played a bigger role in these countries' economic growth strategies, it has generally been ignored or discriminated against.

Property-rights reform gave strong income and asset control to producers in Asia and Central Europe. For example, in East Asia, governments deliberately provided incentives to farmers through property rights reform. At the same time, governments also restructured farms to more efficient sizes. In Central Europe, reforms gave land back to farmers who had lost it during collectivization. By contrast, land reforms in the former Soviet Union have been more gradual, less clear and less effective. A more recent focus on gender policy recognizes that granting land rights and enabling women to manage and control their families' assets and wealth produces a more effective development strategy.

The experience of these 'transition economies' varied depending on whether they pursued a gradual or a rapid approach to land reform and privatization of markets. It is also important to note that neither full privatization of property rights nor fully private markets were necessary in either Asia or Central Europe, as long as the rights were perceived as strong and enduring and the hybrid markets reflected a real market.

Reforms in the rest of the economy. Another factor determining how an economy weathers trade reform depends on how widely the economy is reformed. Transition costs are lower when reform occurs across a wide swath of the economy. This is why it is vital that the Doha Development Round include reform in non-agricultural market access and services. Transition costs are lower when governments make accommodating domestic reforms. For example, if monopolies dominate a sector (particularly agricultural suppliers or purchasers) or if price controls limit adjustment, or if labour markets are inflexible, removing these constraints widens the domain of trade and eases adjustments.

Successful countries have recognized that increased rural productivity and development through agriculture will prime the pump for wider economic growth. But, long-term policy solutions must acknowledge the eventual need for a more diversified economy. This requires an investment in human capital (education, training, health care, etc.) and anticipating shifts from primary industries that utilize the land and natural resources, to secondary industries such as manufacturing and processing, and finally to the service-oriented sectors. This has been the path of most modern societies (Canada, Australia, Britain and the U.S.), and is illustrated by several works in progress throughout Asia and Eastern Europe.

The emergence of institutions of exchange is crucial to the success of trade reforms. For example, the countries of the former Soviet Union, by rapidly removing the centrally planned institutions of exchange before market structures were in place, created widespread short-term disruptions in agricultural production. The East-Asian economies gradually replaced the planned economy with a more market-oriented system, beginning instead by gradually raising the prices paid to farmers for their crops.

While developing country resources are limited, many of the reforms required involve legal and institutional changes, not infusions of money. And in any event, all governments make choices on how they distribute available resources between different groups in society. Developing country governments can leverage international aid toward the goal of poverty alleviation by seeking funding for infrastructure and other investments that will connect the poor to markets. If poverty alleviation is an important goal, then efforts can begin immediately by channelling existing resources, including donor aid and World Bank investments, into promoting the institutions that surround agriculture and agricultural research in developing countries.

CASE STUDIES IN TRADE AND DOMESTIC REFORM

In the early 1990s, Mozambique removed a ban on raw cashew exports, which was originally imposed to guarantee a source of raw nuts to its local processing industry and to prevent a drop in exports of processed nuts. As a result, a million cashew farmers received higher prices for the nuts in the domestic market. But, at least half the higher prices received for exports of these nuts went to traders and not to farmers, so there was no increase in production in response to the higher prices. At the same time, Mozambique's nut processing industry lost its guaranteed supply of raw nuts and was forced to shut plants and lay off 7000 workers (FAO 2003). A gradual removal of the ban would have allowed local producers to compete better in the international market, claim higher margins on their raw cashews and thereby encourage more production.

In Zambia, before reform, maize producers benefited from subsidies to the mining sector, which lowered the price of inputs such as fertilizer. A state buyer further subsidized fertilizer for small farmers. When these subsidies were removed and the parastatal privatized, larger farmers close to international markets saw few changes, but small farmers in remote areas were left without a formal market for their maize. In this case, decreasing subsidies over time and investing in research to reduce fertilizer applications would have afforded smaller farmers the means to adapt.

In Vietnam, on the other hand, trade reform was accompanied by tax reductions, land reforms, and marketing reforms that allowed farmers to benefit from increased sales to the market. As Vietnam made these investments, they began to phase out domestic subsidies and to reduce border protection against imports. An aggressive program of targeted rural investments accompanied these reforms. During this reform, Vietnam's overall economy grew at 7% annually, agricultural output grew by 6%, and the share of undernourished people fell from 27 to 19% of the population. Vietnam moved from a net importer of food to a net exporter (FAO 2003).

Similarly, in Zimbabwe, before reform of the cotton sector, the government was the single buyer of cotton from farmers, offering low prices to subsidized textile firms. Facing lower prices, commercial farmers diversified into other crops (tobacco, horticulture), but smaller farmers who could not diversify suffered. Internal reform eliminated price controls and privatized the marketing board. The result was higher cotton prices and competition among three principle buyers. Poorer farmers benefited through increased market opportunities, as well as better extension and services. As a result, agricultural employment rose by 40%, with production of traditional and non-traditional crops increasing.

Such efforts must also bring developing countries up to speed in meeting current international standards for productivity and quality. One of the main challenges for developing countries to open their markets will come in the form of technical standards, and bringing small farmers in line with the requirements of the Sanitary and Phytosanitary Standards (SPS) and the Technical Barriers to Trade (TBT) – among other treaties – will require technical assistance through aid.

Initial conditions. Initial conditions determine how the changes in relative terms of trade will affect agriculture when reform takes place. Three sets of initial conditions affect the output and productivity in the transition toward reform. Differences in initial price distortions; differences in technology that affected farm restructuring; and differences in the agri-food chain that distorted markets or pseudo-markets are the three main constraints. For example, in East Asia, pro-urban policies used low agricultural procurement prices to subsidize consumers. Price reforms that moved toward more realistic valuations raised prices to farmers, but disadvantaged urban consumers. In Central and Eastern Europe and the former Soviet Union, agricultural prices had been supported at above 'market' levels, and inputs were heavily subsidized. So, price reform in those countries caused substantial declines in the agricultural terms of trade.

In Africa, where there are huge disparities between urban and rural areas left over from colonial times, trade reforms that boosted export crops reversed rural declines in some countries. Where these crops were grown by smallholders the impact on rural welfare was positive. However, the benefits were lower than they might have been, because many countries waited to make reforms until the situation was fairly desperate. Government services had deteriorated and external debt had increased. Countries that succeeded usually did so after prolonged civil strife, when citizens were eager for some change, and trusted charismatic leadership that could lead countries through difficult transitions.

In Latin America, the hugely uneven distribution of land, capital and education has skewed income growth in favour of those with land. This uneven distribution of land and social capital has been exacerbated by growth policies (trade and others) that have favoured large landholders and more highly educated labour.

AGRICULTURAL TRADE REFORMS: NOW OR LATER?

Some policy makers argue that while trade reform may be good for the economy, some sectors may not be able to withstand the competition. These sectors should be 'protected' from competition until they are stronger. There are several problems with this line of reasoning. First, it is impossible to identify, in advance, which sectors should be protected and which can ultimately survive. Second, and more compelling, protection begets protection once the political forces are lined up to lobby and support it. As experience in the United States, Japan and Europe has proven, it is difficult to dismantle protections and subsidies once political forces have captured them.

Foregoing reform altogether or simply postponing it in those sectors that may have a greater impact on the poor is not the solution, either. The evidence suggests that in the long run, this would hurt the poor further by perpetuating slow growth and distorting incentives for investment and innovation in the economy. In any case, as shown above, trade policy is not a very transparent or efficient policy to use to maintain incomes. There are better policy alternatives, even in developing countries, to help maintain poor people's incomes. Moreover, adjustment costs are not usually large in relation to entire economy – and are usually small relative to the benefits.

Alternatively, policy makers argue to postpone reform until a better time. This may be true if the country is in the midst of a recession, when the pain of adjustment is likely to be magnified and the impacts on the least fortunate more difficult to ameliorate. However, there is a difference between trade reform with a long adjustment period (such as that provided by Special and Differential Treatment) and postponing reform altogether. Interestingly, sometimes reform moves faster than scheduled, even when long time frames are envisioned in trade agreements. There is a downside of long transition periods: elected governments may be tempted to push off necessary reforms and adjustments to the next election and perhaps to another party, leaving the protected sector further and further behind. This occurred in the NAFTA agreement in sugar (in the U.S.) and maize (in Mexico), where neither country put in place the needed reforms until the last minute. Then the needed reforms looked too large and too painful to be politically palatable. Moreover, those who wait risk being left behind by other countries seeking to expand their market opportunities.

TRADE REFORM CREATES WINNERS AND LOSERS

Regardless of trends, levels of hunger and poverty differ widely even among countries with very similar levels of agricultural trade. This indicates that the impact of agricultural trade on food security is mediated by other factors, and highlights the fact that trade reform must be accompanied by other policy reforms and investments if it is to have a positive impact on food security. Targeted social measures and investments in rural infrastructure are two measures that enhance food security for farmers and landowners without undermining the whole society's food security (FAO 2003).

Often employment decreases in the short run, but increases over the longer run or in different economic sectors. In general, the employment transition to reform is small relative to the overall size of the economy and the natural dynamics of the labour market. But, even though there are long-term and economy-wide benefits to trade reform, there may be short-term disruptions and economic shocks that may be hard for the poor to endure. Ultimately, the poor may find better jobs in another sector, but weathering that transition may be difficult for those with few resources.

Countries must consider the impacts of trade reforms on the poorest members of society, and formulate policies to counterbalance reforms that adversely affect the poor. Once a government decides to undertake a reform, the focus should be on easing the impact of reforms on the losers – through reforms in labour, land and capital markets, and through education, retraining and income assistance. Government policy should also focus on helping those who will be able to compete in the new environment take advantage of new opportunities.

Notwithstanding the overall positive analyses of the impact of trade reforms on developing countries, economic studies do not always address the significant variations by country, commodity and different sectors within a developing country. Most of the models aggregate all but the largest developing countries into regional groupings, so it is difficult to determine the precise impacts on individual countries.

Even those studies that show long-term or eventual gains for rural households or for the poor, in general do not focus on the costs imposed during the transition from one regime to another.

It is particularly difficult to evaluate the micro-level impacts on different types of producers within different countries, such as smallholders and subsistence farmers. Households with some food surpluses might benefit while subsistence farmers may remain unaffected. Empirical analysis is also not effective at evaluating how those policies will affect poverty among different households or among women and children within households. For this reason, the within-country distributional issues deserve more scrutiny.

Even though trade promotes economic growth and alleviates poverty, it is still important to pursue trade reform with a pro-poor strategy. In other words, focus on reforming those sectors that will absorb unskilled labour from rural areas as agriculture becomes more competitive, and on trade reforms in economic sectors that employ people in deprived areas. Alan Winters has proposed a useful set of questions that policy makers should ask as they consider trade and accommodating reforms (2002):

1) Will the effects of changed border prices be passed through the economy? If not, the effects – positive or negative – on poverty will be muted.
2) Is reform likely to destroy or create markets? Will it allow poor consumers to buy or sell new goods?
3) Are reforms likely to affect different household members – women, children – differently?
4) Will spillovers be concentrated on areas/activities that are relevant to the poor?
5) What factors – land, labour and capital – are used in what sectors? How responsive is the supply of those factors to changes in prices? How flexible is the market?
6) Will reforms reduce or increase government revenue? By how much?
7) Will reforms allow people to combine their domestic and international activities, or will they require them to switch from one to another?
8) Does the reform depend on or affect the ability of poor people to assume risks?
9) Will reforms cause major shocks for certain regions within the country?
10) Will transitional unemployment be concentrated among the poor?

CONCLUSIONS

All policies create winners and losers, including the existing policy environment in developed and developing countries. The losers from the current policy framework – with agricultural trade badly distorted by rich countries' subsidies, markets closed by rich and poor country barriers and insufficient attention to the rural poor in developing countries – are the hungry and the poor. The evidence is consistent and overwhelming that reducing distortions in agriculture, increasing market access and *at the same time* creating a domestic policy environment that supports agricultural and rural areas will increase economic growth and alleviate poverty.

The Millennium Development Goals and the Doha Development Round commit countries to reforming their trade and domestic policies in agriculture. This commitment has been made by OECD countries, which maintain high levels of agricultural subsidies and protection against commodities that are vital to the economic well-being of developing countries. The OECD countries must reduce their trade barriers and reduce and reform their domestic subsidies, but if developing countries are to derive benefits from trade reform, they must reform their trade and domestic policies as well. With the long implementation periods foreseen in the Doha Development Round, developing countries have at least 15 years to make those reforms and investments to enable them to take advantage of trade opportunities and to ease the transition.

Open trade is one of the strongest forces for economic development and growth. Developing countries and civil society groups who oppose these trade reforms in order to 'protect' subsistence farmers are doing these farmers a disservice. But, developing countries and civil society are correct that markets cannot solve every problem, and that there is a vital role for government, for public policies and financial aid. As the Doha negotiators move toward the discussion of modalities, the energies of the international community, developing countries and civil society would be better used to ensure that developing countries begin to prepare for a more open trade regime by enacting policies that promote overall economic growth and promote agricultural development. Their energies would be better spent convincing the population (taxpayers and consumers) in developed countries of the need for agricultural trade reform, and convincing the multilateral aid agencies to help developing countries invest in public goods and public policies to ensure that trade policy reforms are pro-poor.

Trade reform, by it self, does not exacerbate poverty in developing countries. Rather, the failure to alleviate poverty lies in the underlying economic structures, adverse domestic policies, and the lack of strong flanking measures in developing countries. To ensure that trade reform is pro-poor, the key is not to seek additional exemptions from trade disciplines for developing countries, but to ensure that the WTO agreement is strong and effective in disciplining subsidies and reducing barriers to trade by all countries.

Open trade is a key determinant of economic growth, and economic growth is the only path to poverty alleviation. This is equally true in agriculture as in other sectors of the economy. In most cases, trade reforms in agriculture will benefit the poor in developing countries. In cases where the impact of trade reforms is ambiguous or negative, the answer is not to postpone trade reform. Rather, trade reforms must be accompanied by flanking policies that make needed investments or that provide needed compensation, so that trade-led growth can benefit the poor.

NOTES

[1] The Human Development Index measures a country's performance in relation to health, education and income.

[2] The Control of Corruption Index can take values between -2.5 and 2.5 and has been averaged across countries grouped according to their level of openness, where openness is calculated as exports plus

imports divided by GDP. The sample includes 187 countries; 54 countries fall into the range of most open economies, 48 in the range of least open economies and 84 countries in the intermediate range.

[3] As with Figure 4, the Rule of Law Index can take values between -2.5 and 2.5 and has been averaged across countries grouped according to their level of openness.

[4] The model IFPRI used counts all the longer-term, dynamic benefits that would be expected from less distorted markets.

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