



WP/01/54

IMF Working Paper

International Trade and Poverty Alleviation

Geoffrey J. Bannister and Kamau Thugge

IMF Working Paper

Policy Development and Review and African Departments

International Trade and Poverty Alleviation¹

Prepared by Geoffrey J. Bannister and Kamau Thugge

Authorized for distribution by Anne McGuirk and Robert Sharer

May 2001

Abstract

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

Empirical studies suggest that trade reform has a positive effect on employment and income for the poor; however, there are winners and losers. If the transitional costs of trade liberalization fall disproportionately on the poor, trade reform can be designed to mitigate these effects. This includes making reforms as broad based as possible, sequencing and phasing them to allow for adjustment, and implementing social safety nets and other reforms that facilitate adjustment to the new trade policy. In assessing these findings, it should be borne in mind that the links between trade reform and poverty are complex, making systematic empirical investigations difficult.

JEL Classification Numbers: F13, I30, O19

Keywords: trade reform; poverty alleviation;

Author's E-Mail Address: gbannister@imf.org; kthugge@imf.org

¹ This paper has benefitted significantly from comments from Laurence Allain, Brian Ames, Marc Auboin, Scott Brown, Nur Calika, Tim Lane, Brad McDonald, Anne McGuirk, Robert Sharer, Natalia Tamirisa, Patrizia Tumbarello, and Jarek Wiczorek.

Contents	Page
I. Introduction	3
II. The Links Between Trade Liberalization and Poverty.....	5
A. Changes in the Price and Availability of Imports and Exports.....	5
B. Factor Prices, Income, and Employment	8
Economy-wide effects	10
C. Government Revenue and Programs for the Poor.....	11
D. Investment, Innovation, and Growth.....	12
E. Vulnerability to Negative External Shocks	13
III. What does the Empirical Literature Tell Us?	14
IV. Lessons for the Design of Trade Reform.....	19
A. Broad-based Liberalization	20
B. Exchange Rate Flexibility	20
C. Attention to Effects on Urban Informal and Rural Agricultural Markets.....	21
D. Complementary Reforms	21
E. Sequencing and Credibility	22
F. Social Safety Nets.....	22
G. The PRSP Process and Social Safety Measures.....	23
V. Poverty Reduction and Multilateral Trade Liberalization	24
VI. Conclusion	27
Text Table	
Table 1. Taxing Malaria Protection: Countries Known to Charge Duties on Imported Bednets	7
Boxes	
Box 1. Imports of Used Clothing.....	6
Box 2. Trade Liberalization, Malaria, and Poverty Reduction	7
References.....	29

I. INTRODUCTION

The link between trade and poverty is a new area of study. Although the recent emphasis on poverty has spurred some initial research (e.g., Winters, 2000; and Ben-David, 2000), this is still mostly theoretical and few empirical investigations have been undertaken.² There is a consensus, however, that the essential precondition for sustained poverty alleviation is rapid economic growth.³ By providing incentives for an efficient allocation of resources, an open and transparent trade regime is an important precondition for broad-based and sustained growth. Thus, in the medium term, trade reform has an important role in poverty alleviation through its effects on the rate and sectoral pattern of growth.

In the short run, trade reform could have redistributive effects on income that can hurt the rich and the poor alike. Trade theory has generally assumed that lump sum transfers are possible from winners to compensate losers (e.g., Dixit and Norman, 1980; and Corden, 1974). However, lump sum redistribution of the gains from trade is hardly ever practical, let alone politically feasible. Thus, although trade reforms may raise average incomes in the medium term, in the short term some segments of society can suffer losses. Because the poor or near-poor have fewer assets to protect them during economic hard times, they are less able to absorb adjustment costs than other segments of society. This justifies looking more carefully at the effects of trade liberalization on the poor.

Who are the poor? The simplest definition is that of income/consumption poverty, which defines people as poor if their access to economic resources is insufficient to acquire enough commodities to meet basic needs (World Bank, 2000; and Khan, 2000). This definition implicitly relies on the establishment of a level of income/expenditure which is necessary to acquire a basket of goods that satisfies basic needs (i.e., the poverty line). This traditional definition ignores many of the social and participatory aspects of poverty.⁴ However, it is a useful starting point for looking at the effects of changes in the economic environment from trade reform. Under this definition trade reform will increase poverty if it results in a greater number of individuals or households with an income falling below the poverty line.

There are other attributes of poverty that are important to consider in relation to the effects of trade reform. First, the poor lack physical, financial, or human capital and

² Though some are planned—see Evans (2000).

³ For instance, Ravallion (1997) has presented empirical evidence suggesting that every one percent increase in per capita income can reduce headcount poverty by 1.5 percent to 3.5 percent.

⁴ In particular, for example, access to health, education and other social services, infrastructure, and political enfranchisement, as well as insurance against economic risk.

are therefore much more vulnerable to economic fluctuations or sudden changes in the economic environment (such as might come from trade reform). For example, as discussed in the case study of Zambia below, a farmer might respond to the effects of a change in relative prices by diversifying from the cultivation of traditional to nontraditional products, but this will typically involve an investment of resources to acquire new seeds, new tools, new cultivation methods. A lack of physical, financial, or human capital will make this switch much more difficult. Second, there is evidence of considerable rotation of households into and out of poverty. To the extent that trade policy affects the determinants of these movements, it will have an effect on the number of poor (Winters, 2000). More important, severe shocks can turn transitory poverty into a permanent phenomenon. Even a transitory loss of income can cause the poor to lose opportunities to acquire human capital through education, health care, and nutrition and thus affect their ability to get out of poverty in the future. Third, the poor are not tightly linked to the formal economy (Lustig, 1998), and generally subsist in the urban informal sector or in rural subsistence agriculture. Thus, trade policy reform that seeks to be sensitive to its effect on the poor will not be able to ignore these sectors. Finally, the poor typically have little political voice, and thus have little or no chance to influence the way trade reforms are conducted. This disenfranchisement means that the effects of trade reform on the poor will be less likely to be taken into account when policy decisions are being made.

This paper presents an overview of the links between trade reform and poverty, reviews the limited empirical evidence, and discusses policy options for trade reform that might minimize its negative effects on the poor. Section II describes the different mechanisms through which changes in trade policy can affect the incomes of the poor. The analysis of these links forms the basis for a discussion of policy options later in the paper. Section III reviews the empirical literature. In addition to the few studies that exist on the direct links between trade and poverty, we draw some insights about how trade reform might affect poverty from studies of the adjustment costs of trade reform, its effects on income distribution, and the links between trade and growth.⁵ Section IV presents some lessons for the design of trade reforms that take into account their effects on the poor. These include the implementation of complementary reforms that facilitate the participation of the poor in formal markets and allow them to take advantage of market opportunities. In addition, we discuss how trade reforms can be designed to spread the costs of adjustment as widely as possible and to minimize them, including through the use of safety nets. Section V broadens the focus from unilateral trade liberalization to the multilateral trade negotiations under the World Trade Organization (WTO) and broadly describes the interests of the poor developing countries. Section VI presents conclusions.

A clear message from this review is that trade liberalization has a positive overall effect on the employment and income of the poor. However, as with all structural reforms

⁵ The literature is thin, and most results are preliminary, indicating that more work needs to be done in this area.

there are winners and losers, and there may be some episodes where the transitional costs of trade reform fall disproportionately on the poor. The empirical evidence suggests, however, that even for the poor, the short-term costs of adjustment to trade reforms are outweighed by the benefits.

II. THE LINKS BETWEEN TRADE LIBERALIZATION AND POVERTY

Trade liberalization can affect the welfare of the poor through a number of channels: (i) by changing the prices of tradable goods (i.e., lowering prices of imports for poor consumers and producers, increasing prices of exports for poor producers), and improving access to new products; (ii) by changing the relative price of factors (skilled and unskilled labor and capital) used in the production of tradable goods and affecting the income and employment of the poor; (iii) by affecting government revenue from trade taxes and thus the government's ability to finance programs for the poor; (iv) by changing incentives for investment and innovation and affecting economic growth;⁶ and (v) by affecting the vulnerability of an economy (or subgroups within the economy) to negative external shocks that could affect the poor. Because of their general equilibrium nature, these channels of transmission are interdependent and subject to influence from many other types of policies and economic events. In addition, some of these effects take place immediately and others work only over longer periods. This makes the link between trade liberalization and poverty extremely complex, and thus drawing generalizations about these links very difficult. In this section we review each one of these links in turn.

A. Changes in the Price and Availability of Imports and Exports

Trade liberalization helps the poor in the same way it helps most others, by lowering prices of imported goods and keeping prices of substitutes for imported goods low, thus increasing their real incomes. Imported products that might be especially important for the poor include basic foods, pharmaceuticals and other medical or basic health products, used clothing and other used products (see Box 1). There can also be an important benefit to the poor, to the extent that they are net producers of exports (as is often the case in agriculture, for example), from removing export taxes or prohibitions. The removal of export barriers can increase the price producers receive and stimulate the production of exportables, leading to increases in employment and income.

⁶ Including the incentives for human capital formation, which is an essential component of growth and poverty alleviation.

Box 1. Imports of Used Clothing

Despite bans, prohibitive tariffs, licensing requirements, and other restrictive trade practices, imports of used clothing have become increasingly important in many developing countries, accounting for as much as 17 percent of total imports of clothing and textiles in some (Pakistan). The key issue raised by imported used clothing is whether they contribute to the welfare of the poor, who can now afford to purchase low-priced and potentially higher quality goods, or whether the importation of these cheap products serves as a disincentive for domestic substitutes, resulting in a loss of income and increased unemployment, and constituting “dumping” of inferior goods.

Countries that restrict importation of used clothing to protect their domestic industries point to the “infant industries” argument, noting that the textile industry is a necessary first step in industrial development, requires relatively little capital to enter, and may result in positive externalities in the form of skills and experience gained. It can be argued, however, that apart from the poor being able to afford usable clothes, the market for imported used clothing itself generates employment via cleaning, repairs, and distribution. Moreover, there are potential indirect benefits in that poor households now have more real income to spend on other goods thus potentially increasing employment in those other sectors.

There is little detailed empirical evidence on the net economic benefits of imported used clothing. One of the few detailed studies on this issue involving Rwanda¹ suggests positive net economic benefits from imported used-clothing, though its general applicability is limited by the fact that Rwanda did not have any domestic textile production that would have been negatively affected by the trade.

As for any other imported good, the import of used-clothing is likely to have short-term adverse effects on the import competing clothing industry. However, in light of the potential benefits that could accrue to the poor, governments should make efforts to liberalize the sector in a credible and transparent way, and should strengthen social safety nets to help any of the displaced workers. In any event, it is worth noting that in many countries (e.g., Bolivia, Ghana, and Tanzania, among others), used clothing is imported anyway through contraband and so the maintenance of trade restrictions simply represents administrative costs for government and opportunities for rent seeking.

¹ Haggblade, 1990.

An open trade regime also permits imports of technologies and processes that can help the poor, for example technologies for packaging perishable foods that are light and do not require refrigeration; chemicals for sterilizing water; or improved seeds and fertilizers. Trade liberalization can also facilitate anti-poverty programs and social policies implemented either by the government or by nongovernmental organizations, by making products and technologies used in these programs more generally available and cheaper. For example, at the African Summit to Roll Back Malaria (RBM) in April 2000, the heads of state pledged to reduce or waive taxes and tariffs for mosquito nets, insecticides, anti-malarial drugs, and other recommended goods and services that are needed for malaria control as one component of a strategy to reduce the costs of malaria in Africa, which have been estimated at about 1 percent of GDP per year (Box 2).

Box 2. Trade Liberalization, Malaria, and Poverty Reduction

It is estimated that over 1.1 million people die worldwide from malaria each year and that 90 percent of these deaths take place in Africa. Malaria has been estimated to have substantial short-term negative effects on economic growth due to lost work time and the cost of treatment and prevention. In addition, it also reduces the economy's long-term growth potential since it reduces school attendance, thereby limiting the accumulation of human capital over time. One study estimates that malaria slows economic growth in Africa by up to 1.3 percent each year.¹

Despite these costs, however, some 14 countries worldwide, 12 of which are in Africa, impose tariffs on imported items used to protect against mosquito bites and prevent malaria. Explanations for the high import tariffs on mosquito nets, include: (i) the need to generate government tax revenues, and (ii) the desire to protect the domestic textile industry from foreign competition.

Table 1. Taxing Malaria Protection: Countries Known to Charge Duties on Imported Bednets ²	
	Percent Tariff
Namibia	8
Eritrea	13
Yemen	15
Guinea	18
Guinea-Bissau	25
Zambia	25
Bolivia	30
Djibouti	33
Benin	36
Burundi	36
Cameroon	50
Mozambique	50
Togo	50
Gabon	53
Senegal	65
Côte d'Ivoire	75
Source: UNICEF, 1998.	

Imposing such import tariffs increases the price of mosquito nets and other anti-malarial treatments, making it less likely that poor households will be able to effectively fend off malaria. Some studies [(Gambia)] suggest that malaria deaths among children can be reduced by about 25 percent if children sleep under insecticide treated mosquito bed nets. Trade liberalization could, therefore, serve to reduce the cost of such bed nets and significantly reduce the incidence of malaria.

During the recent African Summit on RBM, the African Heads of State committed to halving malaria mortality by 2010 by implementing strategies and actions for RBM. Among other measures, they agreed to reduce or waive taxes and tariffs for mosquito nets and materials, insecticide, anti-malarial drugs, and any other goods or services needed to control and prevent the spread of malaria. Substantially reducing inordinately high taxes and tariffs in this area would contribute to lowering the cost to poor households of imported mosquito bed nets and other such items. It is also important that quantitative restrictions on anti-malaria products (e.g., mosquito repellent coils are banned in Nigeria) be eliminated.

¹ Center for International Development, Harvard University, "Economics of Malaria," 2000.

² Among 74 malaria-endemic countries responding to the survey.

B. Factor Prices, Income, and Employment

The shift in resources between industries that often accompanies trade liberalization can have an important effect on wages and employment. We first consider these effects for particular sectors or industries. But trade liberalization can also have economy-wide effects that exacerbate or mitigate the effects on particular sectors. These economy-wide effects can potentially be important, and they are examined in the subsequent section.

Sector-specific effects

Traditional trade theory relies on the Stolper-Samuelson (SS) theorem to predict results of trade liberalization on the income of factors of production (Dixit and Norman, 1980). The SS theorem predicts that a rise in the relative price of a commodity leads to a rise in the real return to the factor used intensively in producing that commodity. Thus, for a developing country with a highly protected production structure, liberalization will result in a rise in the relative price of unskilled labor-intensive products (since skilled labor- or capital-intensive imports become relatively less expensive when trade barriers are removed) and a consequent increase in the real wage for unskilled workers. As the market for labor-intensive products expands, so demand for unskilled labor will rise leading to higher returns to unskilled labor in general. According to the SS theorem, trade liberalization in developing countries should draw more unskilled workers into employment and increase their real wages.

While this is a very powerful result of general trade theory, it rests on very specific assumptions about technologies, labor markets and the number of products and factors (among others).⁷ In practice, these restrictive assumptions are almost always violated, for example, if economies of scale exist in certain more capital-intensive industries, or if labor is not perfectly mobile across all sectors. In this case the effects of trade reform on income distribution will not generally be predictable (Winters, 2000a).⁸ Further, the SS theorem refers to changes in the functional distribution of income, which are not necessarily related directly to changes in household incomes.

If the SS theorem results do not always apply in practice, is there anything more we can say about how trade reforms might affect the wages and employment of the poor? An alternative approach is to draw on general conclusions from empirical studies of trade reforms to illustrate the factors that might affect the way in which trade reform would be

⁷ For a review of these assumptions see “Box 1: Why the Stolper-Samuelson Theorem is not Sufficient to Analyze Poverty,” in Winters (2000b).

⁸ This does not mean that SS effects do not occur in practice. Many observers have pointed out that the effect of trade liberalization on income distribution in East Asia is consistent with the SS theorem (Wood, 1997), and Hanson and Harrison (forthcoming) find the effect of trade liberalization in Mexico is also consistent with the SS theorem.

translated into income and employment changes. Harrison and Hanson (1999), for example, have presented studies of dramatic trade liberalizations in Mexico and Morocco from which some general considerations can be drawn.

First, the flexibility of labor markets will determine whether the effects of trade reform get translated into changes in employment or wages. To the extent that firms are constrained from adjusting their work force by labor regulations, or other restrictions on labor mobility, most of the adjustment to changes in the relative price of outputs will have to come from changes in the real wage. On the other hand, if minimum wage legislation prohibits downward adjustments in wages, but labor mobility is high, adjustment will take place through changes in employment. Empirical evidence shows that in the United States and Canada, for example, trade policy changes have resulted in employment reallocation across industries with very little effect on real wages (Harrison and Hanson, 1999).

In the rural and urban informal sectors of developing countries where the poor reside, labor markets usually have a high degree of flexibility (being generally unregulated) and a high (if not infinite) elasticity of supply of labor. The wage will generally be determined by the requirements of urban and rural subsistence or the next best opportunity for employment. Thus, we could expect that for the poor, adjustment to trade shocks will take place predominantly through changes in employment. Trade reform that results in lower prices of agricultural and labor intensive products will thus lead to higher unemployment. For the poor, with no alternative sources of income, a loss of employment is probably more damaging than a reduction in the real wage, so the costs of trade reform for the poor in this case can be large and might require some kind of government assistance.

On the other hand, if trade liberalization results in higher prices of agricultural and labor-intensive products, this could result in higher employment at the urban or rural subsistence wage, which would substantially benefit the poor. Trade liberalization (or any other reform) will only increase the real wage of unskilled workers to the extent that it raises the marginal product of labor (labor productivity).

Second, the initial pattern of protection will obviously have an important bearing on who wins and loses when that protection is removed. If, as was the case in Mexico, the initial pattern of protection favored unskilled workers in agriculture and light manufacturing, then the removal of protection could be expected to lower the relative wages of this segment of the labor population (Hanson and Harrison, forthcoming).

Finally, the speed with which firms react to liberalization may determine whether liberalization has an important effect on employment and wages. If firms take on the brunt of the adjustment costs, say by reducing profit margins, then liberalization may have little effect on wages or employment. Alternatively, if firms have the capacity to react swiftly and the right economic environment exists, then investment and higher productivity can also protect firms and workers from the negative temporary effects of liberalization. In the informal sector, micro enterprises or small farm households will usually be able to adjust only to a limited extent by reducing profits, and this will be only

a temporary strategy. Since the cost of entry and exit in these markets is relatively small, an informal sector firm might well adjust by exiting from the market temporarily or closing down for good. This highlights what may be a common feature of informal and rural markets where the poor subsist. As pointed out by Winters (2000a), if markets are thin, then trade reform may not result in a smooth reallocation of resources across markets, but rather in the disappearance of whole sectors and products. These kinds of “corner solutions” in the new equilibrium after trade reform will generally have larger negative welfare effects than smooth reallocation where industries contract or restructure, but do not disappear.

These considerations point to a number of observations about the effects of trade liberalization on the poor. First, the effects are much more complicated than the simple SS theory would predict, and depend on a number of key variables, including: the degree of elasticity of the supply of labor in markets where the poor subsist, the flexibility of labor markets, and other events or policies that might affect the other dimensions of demand for labor. Second, because informal markets can be thin and precarious, the adjustment to trade reform may result in “corner solutions” where whole industries or segments of industries disappear. Third, even if industries do not disappear, because of the unregulated nature of informal and rural markets and the generally high elasticity of supply of labor in these markets, adjustment is more likely to take place through changes in employment as opposed to changes in wages. Because the poor work in informal markets, have few assets, and are generally more vulnerable to risk, this kind of economic dislocation can result in high welfare costs from the breakdown of markets and unemployment.

Economy-wide effects

In general, a trade liberalization can be seen as a shock to the economy coming from a change in relative prices. The propagation of this shock through the economy depends on market structure, infrastructure, particularly in distribution services, and the institutional and economic links between markets, as well as the response of economic agents (Winters, 2000a). The propagation of price shocks along these distribution channels depends on the structure of the markets of the goods in question, as well as the market for distribution services. If at any stage these are dominated by monopolies (as is the case for government distribution monopolies, for example) then a reduction in the landed price from trade liberalization may not be passed through entirely to intermediate or final domestic markets. At the extreme, if infrastructure is lacking and distribution channels do not exist, then certain regions or markets (perhaps where the poor reside) will be entirely insulated from the effects of trade liberalization, and these will be more localized.

The localization of the price effects of a trade liberalization, or conversely how widespread they are in the economy, may also have an important effect on the results for the poor. As Winters (2000a) points out, the “domain of trade”—that is, the number of products or markets over which the liberalization can be expected to take effect—can have a bearing on the incidence of the resulting price shock. The wider the domain of trade the more products, markets, and economic agents will be called upon to adjust to it.

Thus, if the costs of adjustment are spread more widely over a number of different actors and markets, this will lessen the costs for any individual market, and vice versa.

This clearly has implications for the design of trade policy reform. In particular, reform across a wide range of products will be optimal in that it can, under most circumstances, call upon a wider domain of trade to adjust. This will happen, for example, because across-the-board reform results in price changes that mutually offset each other, as they reduce prices proportionally for both inputs and outputs, or on products and services for which the poor (as well as other income groups) are simultaneously net consumers and net suppliers.⁹ In addition, this effect need not be limited to traded goods since the effects of liberalization may spillover into nontraded goods markets, and these in turn may benefit other parts of the economy. For example, liberalization of fuel imports could directly reduce transportation costs and have economy-wide benefits, including for the poor.

The above also has implications for complementary reforms that may be desirable to implement either before or concurrently with trade reform. For example, in circumstances where monopolies reduce the domain of trade, reforms that increase competition in distribution markets or in markets that are linked to products and services that the poor consume or produce would clearly be beneficial. Similarly, removing price controls would also introduce more flexibility for markets to adjust to trade policy shocks. Finally, measures to increase the flexibility of labor markets could be considered an important complement to trade reform that would facilitate adjustment (Edwards, 1995; and Matusz and Tarr, 1999).

C. Government Revenue and Programs for the Poor

There is a general concern that trade reform may lead to lower government revenue as trade taxes are reduced or eliminated, and that in an effort to maintain macroeconomic stability, governments may cut social expenditures or implement new taxes which could disproportionately affect the poor. It should be noted, however, that trade liberalization can have a positive, negative, or neutral effect on government revenue depending on the reforms introduced and the particular circumstances of the country (Sharer and others, 1998). Tarrification of NTBs and elimination of tariff exemptions will generally raise revenues (Ebrill and others, 1999). Similarly, if the initial tariff is

⁹ If we divide the domain of trade into final, intermediate and primary products then the proposition of widespread reform is linked to the idea that trade reform should aim at eliminating effective protection (i.e., radically different rates of protection for inputs and outputs) especially as a result of tariff escalation which protects final goods more than intermediate goods and raw materials. This may be particularly important as the poor may be concentrated in markets where the production of intermediate goods and raw (agricultural) goods takes place. Under these circumstances, a widespread reform will help eliminate the bias against intermediate and agricultural goods markets and thus create more economic opportunities for the poor.

prohibitively high, reducing it can result in higher trade flows that will increase revenue. Lowering high tariffs also reduces the incentive for smuggling and corruption, which can increase the volume of goods recorded at customs and boost revenue. Finally, simplification of the tariff regime to a more uniform structure with just a few tariff rates could increase fiscal revenue through increased transparency and simplification of tax administration. Complementary reforms such as sound supporting macroeconomic and exchange rate policies may also lead to higher rates of growth and increases in trade volume that could offset revenue losses from lower tariffs. Transparency and good governance also help to make an economy more “open” and thus more able to take advantage of the benefits from trade.¹⁰

To the extent that lowering tariffs leads to lower government revenue from trade taxes, domestic tax reform (particularly a move towards more broad based and less distortionary taxes) or expenditure restraint may be required in order to maintain macroeconomic stability.¹¹ In this context, domestic tax reforms (including, in particular, moving to broad-based taxes) and expenditure measures should be designed so as to minimize their adverse effects on the poor. For instance, this might involve not raising excises and other taxes on basic foodstuffs that the poor rely on and cutting back on nonproductive expenditures, rather than those which have a direct impact on the poor.

D. Investment, Innovation, and Growth

As noted earlier, an important factor in sustained poverty reduction is robust economic growth in which the poor can participate. One of the main channels through which trade reform affects growth is by reducing the anti-export bias of trade policy and leading to a more efficient allocation of resources. However, this one-time gain in allocative efficiency need not affect the long-term growth rate of the economy. In the long term, trade liberalization can affect the rate of growth of an economy through its incentive effects on investment (for example, to produce a larger number of different goods (Romer, 1989) and innovation (Grossman and Helpman, 1991; and Bayoumi and others, 1995)). In addition, trade reform is usually associated with higher flows of foreign direct investment with attendant spillovers of technologies, new business practices and other effects in domestic firms that increase the overall level of productivity and growth (Hejazi and Safarian, 1999; and Aitken and others, 1994).¹²

¹⁰ For an estimate of the quantitative effect of good governance on trade, see Anderson and Marcoullier (1999) and Wei (2000).

¹¹ The general prescription for phasing in trade reform in steps, first removing nontariff barriers and then lowering tariffs and rationalizing their structure, will also allow countries some time to implement domestic tax reform to substitute for the decline in trade tax revenue.

¹² Trade reform in services can also result in significantly improved access to education and the formation of human capital that can have a significant effect on innovation and growth.

Recent empirical research (Rodriguez and Rodrik, 1999; and Harrison and Hanson, 1999) suggests that the relationship between trade liberalization and growth is not straightforward. In particular, the effects of trade reform on growth depend upon the existence of other complementary macroeconomic and structural policies. For example, in cross-country research, one variable that is consistently related to the rate of growth is the exchange rate black market premium, indicating that exchange rate overvaluation may be an important inhibitor of growth. The implication is that trade reform without appropriate macroeconomic and exchange rate policies to improve competitiveness will be less effective in promoting growth. Thus, a consistent overall economic package is essential for trade reform and other structural measures to foster adjustment and growth.

But even when such policies lead to growth, one concern often raised is that open trade policies may lead to a pattern of growth that disproportionately benefits the rich, thus worsening the distribution of income (Lundberg and Squire, 1999). Recent evidence casts doubt on this assessment. Dollar and Kraay (2000) assess whether the growth in per capita income of the bottom fifth of the population is related to that of average per capita income in a sample of 80 countries. They find that the growth in average per capita income is translated one for one to growth in the per capita income of the poorest fifth of the population, so that aggregate growth has a direct effect on the poor. Further, they find that openness to foreign trade benefits the poor to the same extent that it benefits the whole economy.¹³

E. Vulnerability to Negative External Shocks

Trade liberalization will make an economy more open and foster a deeper economic integration with the rest of the world. In many cases, this will help an economy diversify exports in line with its comparative advantage and become less dependent on single export markets or products. In addition, integration with foreign markets helps an economy diversify risk away from the domestic market, so that domestic economic downturns are offset by growth in the international economy. However, openness may also make an economy more vulnerable to external shocks, such as abrupt changes in the terms of trade, which can have an important effect on growth. If the shocks affect certain sectors such as agriculture or informal production directly, they can have a large effect on the poor. For example, cotton production in Bolivia, on which a large proportion of

¹³ Here it is also important to distinguish between the effects of trade policy and geographic location as a factor in a country's "openness" to trade (from proximity to world markets, for example). Frankel and Romer (1999) have shown that the geographic component of trade has a significant effect on growth of income, meaning that naturally open economies do grow faster. However this link has not been established so clearly for openness induced by trade policy reform, largely because it is difficult to measure the component of a change in a country's trade that comes from trade reform. As a result, most studies have concentrated on measuring the trade reform itself (i.e., the change in policies), but even this is difficult to capture accurately (Anderson and others, 1995).

seasonal migrant labor depends, has declined dramatically in recent years as a result of the fall in commodity prices linked to the Asian crisis. This has left a large group of poor people without income during part of the year.

Are more open economies more vulnerable to external shocks? There is evidence that, although they grow faster, more open economies do suffer from greater terms of trade shocks, which result in greater volatility of economic growth rates (Easterly and Kraay, 1999). To the extent that trade policies contribute to openness they thus also might lead to greater macroeconomic volatility. There is also evidence that greater macroeconomic volatility affects the poor disproportionately. Lustig (2000) points out that there is a strong link between macroeconomic downturns and rising poverty in Latin America, where every one percentage point decline in growth results in a two percent increase in poverty. Part of the reason is that macroeconomic shocks can have an irreversible impact on the human capital of the poor as they affect opportunities for investment in education, nutrition and health.

One of the obvious prescriptions to deal with external trade shocks is exchange rate management as a complement to demand management policies. Many writers (for example, Hausman and Gavin, 1996; and Hausman and others, 1999) have pointed to the benefits of flexible exchange rates in attenuating external shocks, resulting in lower volatility of real GDP than under fixed exchange rates. But even with a fixed or pegged exchange rate some margin for adjustment may be possible. Rodrik (1999) uses a simple model to show that, in the presence of downward wage and price rigidity, an exchange rate policy that is targeted on the current account not only serves a stabilization function, but also can serve as social insurance. An exchange rate targeted at correcting external imbalances (that might arise from a terms of trade shock, or a devaluation or recession in a major trading partner, for example) spreads the cost of adjustment throughout the economy and thereby eases the adjustment to the shock of the most directly affected industries.

III. WHAT DOES THE EMPIRICAL LITERATURE TELL US?

Because of the complexity of the linkages between trade reform and poverty, the empirical evidence to date on trade liberalization and poverty is limited to studies of general market reforms and growth on the one hand, or case studies on the other. Some of these studies make a direct link between trade reform and changes in the level of measured poverty. Others infer the effects indirectly through the likely implications for the poor of movements in wages and employment that can be imputed to trade liberalization. The general results are positive overall. Both the general and the specific studies show that trade liberalization increases economic opportunities and improves incomes for the poor. But these studies also show that among the poor there can be winners and losers.

The effect of trade reform on the poor has been reviewed in the context of overall market-oriented reforms in the *World Development Report* of the World Bank (2000). A number of studies cited there show that greater openness to trade in developing countries over the last ten years may be partially responsible for the relative increase in the wages

of skilled workers versus unskilled workers, a result that is contrary to what might be expected from the classic SS analysis (Hanson and Harrison, forthcoming; Currie and Harrison, 1997). The implication is that these reforms may have worsened the relative position of the poor as a result of higher income inequality. However, specific studies of reform episodes in Latin America and the Baltic countries, Russia, and other countries of the former Soviet Union show conflicting results in this respect, so it is difficult to draw generalizations. While trade reform was found to worsen income inequality (though only very slightly) in Latin America, it did not have this effect in the countries of the former socialist bloc (Morley, 1999; World Bank, 2000). Wood (1997) has contrasted the results on income distribution of reforms, citing the reduction in income inequality that accompanied reform in East Asia in the 1960s and 1970s as opposed to the increase in inequality that resulted in Latin America. Winters (2000b) has pointed out, however, that trade liberalization in Chile was temporarily associated with worsening inequality over the 1980s but that by 1997 the degree of inequality had returned to its pre-reform level, and at a level of income that was considerably higher (World Bank, 1997). This suggests that worsening inequality from economic reforms could be a transitional phenomenon.

Winters (2000b) presents two case studies designed to illustrate the potential effects of liberalization on the poor. He reports on an Oxfam-IDS (1999) study of liberalization of the cotton market in Zimbabwe and the maize market in Zambia. The study defines liberalization much more broadly than just lowering trade barriers. In fact, the study identifies liberalization from outcomes of policies rather than the implementation of policies themselves, so that a liberalization is identified as an episode which has (a) provided more uniformity of policy treatment between different economic activities; and (b) introduced freer competition into markets. Thus, trade reform is only part of the reform measures reported on here.

In Zimbabwe, before liberalization, the government was a monopsony buyer of cotton from farmers and used low producer prices to subsidize inputs into the textile industry. Facing lower prices, larger commercial farmers could diversify into other crops such as horticulture and tobacco, but small and poor farmers suffered. The liberalization eliminated price controls and privatized the marketing board. The result was higher prices and greater competition among three principal buyers. In addition, the buyers competed not only on price, but also through the supply of extension and other input services to small landholders. Thus, the poorer farmers benefited through increased market opportunities, higher prices, and the availability of extension and input services. As a result, agricultural employment rose considerably (by 40 percent from 1988 to 1997), with production of both traditional and nontraditional (horticultural) agricultural products increasing.

In Zambia, the result of liberalization in the production of maize was the opposite. Before liberalization, maize producers enjoyed cross-subsidies financed by the mining sector which made inputs much less expensive. In addition, small producers in remote areas were implicitly subsidized by pan-seasonal and pan-territorial pricing set by a monopsony parastatal buyer. With the removal of subsidies and privatization, larger farmers close to national markets saw no effective change in market conditions, but small farmers, and especially those in remote areas, were severely affected. Due to a sharp

deterioration in transportation infrastructure, remote rural markets for corn completely disappeared leaving poor maize farmers without a formal income.

The results of these episodes are not in themselves surprising given the initial conditions before liberalization. Nevertheless they are examples of the effects that follow from different types of liberalization. In Zimbabwe, the initial restrictions might be seen as analogous to a tax on exports which keeps producer prices low and inhibits competition. The removal of these “taxes” resulted in benefits to net suppliers of exports. In Zambia, on the other hand, the restrictions could be seen as analogous to a tariff on imports which results in a subsidy to domestic producers (and a tax on consumers) of import competing products.¹⁴ The removal of the tariff/subsidy, not surprisingly, resulted in a decline in revenue for producers of the import-competing products, and at the extreme the disappearance of uncompetitive domestic production.

A more important distinction between these two cases, as Winters points out, is that liberalization in Zimbabwe resulted in the creation of markets in which the poor could participate, and an improvement in market performance, while in Zambia reforms resulted in the disappearance of functioning markets for the poor. The disappearance of maize markets in Zambia undoubtedly had to do with a deterioration of transportation infrastructure which progressively marginalized rural farmers. But according to Winters, it is an open question whether, even with adequate infrastructure, maize markets would have survived, given the institutional constraints that existed.

Winters (2000b) also reports on a study (CUTS, 1999) of the effects of trade liberalization on labor markets in India and Bangladesh. Again, there is no specific tracking of the effects of liberalization on certain sectors or income groups, but rather a general analysis of what happened to employment and wages during the period from 1987/88 to 1994/95, when trade liberalization took place. In the formal manufacturing sector, there was an acceleration in the rate of growth of employment, and a deceleration in the rate of growth of real wages (though not a decline). However, in the informal manufacturing sector there was a large decline in employment. Winters (2000b) argues that because formal wages are well above the poverty line, the increase in formal employment is likely to have had a greater effect on reducing poverty (particularly through remittances of urban formal workers to rural areas) than the decline in employment in the informal sector. This yields a positive assessment of the effects of trade liberalization on the poor in India. Some caveats to this conclusion that Winters (2000b) mentions are: (a) the effects were very small, since formal manufacturing employment was a tiny part of the Indian economy and the rates of growth of employment and wages over the period of liberalization were also relatively small; and (b) in any event, workers in the formal and informal sectors perceived themselves to be worse off after the liberalization. One explanation for the fact that gains were not more widespread is that labor markets are segmented and the benefits of reform were isolated

¹⁴ For an analysis of the way a tariff acts like a simultaneous tax on consumers and subsidy to producers of the import competing goods, see Dixit (1985).

in specific industries. A number of other studies attempt to quantify the effects of trade liberalization directly on the poor. The first, cited in Bussolo and Solignac Lacomte (1999) estimates that a reduction of average tariffs in sub-Saharan Africa from 40 percent to 10 percent entails a real income loss of 35 percent for urban employers, a loss of income of 41 percent for workers who receive trade rents (usually urban workers in protected industries) and a gain of 20 percent to rural farmers. Since rural farmers significantly outnumber affected workers and their employers, trade liberalization will have an overall positive effect on welfare, although those few that were receiving rents from trade protection may lose. The second is a recent study on the effects of trade liberalization on the poor in Nicaragua, which quantifies the initial partial equilibrium, first-round effects of removing trade restrictions and price support mechanisms (Kruger, 2000). The study finds that the effect on poor producers is negative as the prices for agricultural products fall, but that this is more than offset by the income effect of the decline in prices of consumer goods. Overall, the net real income for the very poor increased by 2.3 percent, while real incomes for all poor increased by 1.7 percent.

More detailed studies have been presented recently which use computable general equilibrium (CGE) models to estimate the price effects of liberalization and then link these effects to the welfare of households differentiated by income strata and other characteristics.¹⁵ Some of these studies disaggregate the household sector within the CGE model, while others use the price results of CGE models and impute effects to households by using household income and consumption survey data. The value of these studies is that they are able to trace the effects of liberalization from price changes in specific sectors, and through effects on consumption and factor prices and other types of income for poor households.

Preliminary results from three of these studies give an indication of the results that are achievable. The first is a CGE model for South Africa which includes 24 types of households identified by ethnic background and income classification, and labor disaggregated into 13 categories (Devarajan and van der Mensbrugghe, 2000). The policy experiment is to liberalize South Africa's trade regime by removing all tariffs. This results in overall gains in the model of 0.7 percent of GDP and a 1 percent increase in employment. Black households are better off as a result of the liberalization while white households lose, so that overall there is a decline in income inequality. However, among black households, the bottom 40 percent lose while the top 60 percent gain. This is because high-income black households derive a significant amount of their income from export oriented industries which benefit from the liberalization while the poorest black households receive most of their income from government transfers, which remain fixed.

¹⁵ The studies described below, and others, were presented at the conference on Poverty and the International Economy sponsored by the World Bank Group and the Parliamentary Commission on Swedish Policy for Global Development in Stockholm on October 20 and 21, 2000. The results detailed here are very preliminary and subject to revision.

Thus the experiment shows that trade liberalization would increase welfare for the poor in general, but could hurt the poorest black households.

A second study looks at the effects of trade liberalization on the poor in Indonesia (Friedman, 2000). This study uses a CGE model to calculate the commodity price effects of unilateral and multilateral liberalization and then applies these to information from household consumption and income surveys to see which households gain and which lose. Again the results are preliminary, but they show that after adjusting for the value of self-produced food, the net effects from unilateral liberalization amount to a small average gain of 0.7 percent in household income. However, the rural poor are net losers with a slight decline of 0.1 percent in their household income. This is due to the fall in agricultural prices from liberalization which results in a decline in rural household income. Also, since poorer households consume much of what they produce, they do not benefit from the fall in prices that results from the liberalization. The poorest of the rural poor are the largest net losers.¹⁶

The preliminary results for Indonesia from multilateral liberalization are quite different.¹⁷ This scenario results in higher international prices, presumably due to the increase in world demand that results from the multilateral trade liberalization. These higher international prices outweigh the decline in prices from Indonesia's own trade liberalization, resulting in a substantial net increase in prices faced by Indonesian households. Under this scenario all households gain, but the poorest households gain the most (with a net gain of 6.2 percent in income). This gain comes from the fact that the increase in prices does not significantly affect the cost of consumption for the poorest rural households, because of the high proportion of self-produced food that they consume.

The studies presented above look at the changes in income and employment before and after trade liberalization, but do not take account of the costs that society or individuals may have to bear during the transition from one regime to another. Matusz and Tarr (1999) review the literature on adjustment costs to trade reform. All studies to date have been in developed country settings, but the authors argue that these may be applicable to developing countries to the extent that a higher percentage of employment in developing countries is in agriculture and informal markets which are very flexible. They find that trade reform has led to some unemployment in the short run, but to

¹⁶ A number of caveats to this result are mentioned. First, since the methodology does not incorporate substitution effects for households the estimates of income change represent an upper bound on income losses and a lower bound on income gains. This suggests that including substitution effects rural poor might not lose after all.

¹⁷ The model divides the global economy into 5 regions: Indonesia, North America (NAFTA), Europe (EU), other countries in AFTA, and the rest of the world. Multilateral liberalization is simulated in the model by liberalization of QRs and/or tariffs in these other regions.

increases in employment in the medium to long run. Further, in every study, the estimated degree of adjustment is relatively small in relation to the natural dynamics of the labor market. Where quantification is possible, the studies they cite find that each dollar of adjustment cost is associated with several dollars worth of efficiency gains. In addition, adjustment costs are realized only during the transition, while the benefits of liberalization increase over time as the economy grows.

In terms of the private costs of unemployment, Matusz and Tarr (1999, p. 20) find that workers with substantial industry-specific human capital stand more to lose from liberalization: "Available research tends to show that the private losses borne by individual workers depend heavily on worker characteristics. On the one hand are workers who have substantial specific human capital accumulated in the industry or firm, or workers who are earning substantial wage premia (possibly due to union power or high government wage scales or efficiency wages). These workers tend to lose a lot as a result of displacement. On the other hand, workers with little specific human capital or who are not earning wage premia lose little or nothing from displacement, depending on the industry." Of course, losing a little can be devastating for a poor household that has little in terms of assets to begin with, while losing more for a worker that has some assets may not be so catastrophic.

In general, the results of the studies cited above are positive. As might be expected, trade reform in these empirical analyses increased the income of the poor as a group, and the transition costs in general were small relative to the overall benefits. This supports the impression that the poor gain from trade reform. Nevertheless, there are cases where the effects of liberalization on the poor, and others, in the short run can be negative and significant. While these negative results cannot be discounted, it is important to realize that in many cases they are conditioned by the initial pattern of protection. When the poor benefit from rents from trade protection, it is inevitable that in the short-run the removal of protection will result in a reduction in their income. This is true in the studies of Zambia, Indonesia, and Turkey. It is also important to note that the studies cited here, particularly the CGE analyses, assume a short-term perspective in which no changes in investment or the growth path of the economy can occur. The benefits that they impute from liberalization come from static gains in efficiency. But the more important gains from liberalization are known to come from dynamic gains such as more efficient patterns of investment and technological diffusion. Further, these studies do not include the effects of complementary policies (such as those discussed below) that facilitate adjustment to the new free trade equilibrium. In this respect they are likely to significantly overstate the costs of liberalization and understate its benefits, even for the poor. Over the medium term changes in investment and economic growth can (and usually do) significantly overwhelm the negative distributional effects of changes in prices that result from trade liberalization.

IV. LESSONS FOR THE DESIGN OF TRADE REFORM

In the past, the specific effects trade liberalization might have on the poor have rarely taken into account. There is, however, sufficient anecdotal evidence suggesting that the transition costs of trade liberalization can hurt the poor in the short run. If there is

some indication that liberalization might increase poverty, one option might be to postpone it altogether, or to forego liberalization in those sectors where it will have a greater impact on the poor. But the evidence cited above suggests that in the long run this would hurt the poor further by perpetuating slower growth and distorting incentives for investment and innovation in the economy. In any case, as has been pointed out by Corden (1974) among others, trade policy is not a very transparent policy to use for income maintenance (which is part of its attraction for governments), and there are certainly better (i.e., more targeted, transparent, and less distortionary) policies to help maintain the incomes of the poor.

A natural question to ask is whether there are ways of liberalizing trade restrictions that might be more friendly to the poor. One first and obvious suggestion is to pay attention to the way liberalization might affect the most vulnerable in society. In practical terms this means developing a poverty diagnostic which can help identify where the losers from trade liberalization might be among the poor. Based on this analysis some compensatory measures can be designed to help the poor deal with the transition costs of adjustment and benefit from the new open trade regime. In the section below on safety nets we review some of these measures. Beyond compensatory policies, there are also other prescriptions for trade policy reform itself, and for accompanying policies, that follow from the discussion in previous sections.

A. Broad-based Liberalization

The importance of broad-based liberalization (i.e., cutting trade barriers across the board) follows from the discussion of the general equilibrium adjustment to trade liberalization. To reiterate, the wider the domain of trade that is being liberalized, the more individual sectors or groups (including the poor) will be able to perceive the benefits of liberalization (not only from lower costs of inputs or consumption goods, but also from economy-wide effects such as lower transportation costs) and thus bear the costs. In addition, if the liberalization is broad-based the costs of adjustment will be more widespread among different sectors.

B. Exchange Rate Flexibility

Related to the above, just as exchange rate flexibility will reduce the output costs of terms of trade shocks, so it can help in the adjustment to trade policy reform. The classic policy prescription for substantial trade liberalization under a fixed exchange rate regime is for a once-off devaluation just before or in conjunction with reform. This raises the local currency price of tradables reducing demand for imports and increasing incentives for a supply response in the export sector. In practice this might be difficult to implement in countries that have fixed or pegged exchange rate regimes and are sensitive to the inflationary effects of devaluations. But, with nominal wage rigidity, even some exchange rate flexibility that will dissipate the shock of trade reform throughout the economy will be better than requiring the adjustment to take place entirely through increased unemployment in the most affected industries. This is especially important if the poor depend on these industries.

C. Attention to Effects on Urban Informal and Rural Agricultural Markets

Because the poor earn their livelihood mainly in urban informal markets or in rural agriculture, any analysis of trade reform's effect on the poor should pay particular attention to these sectors. Often these are not homogeneous sectors and there may be conflicting effects that will have to be sorted out even within each sector. Informal carry trade across borders (i.e., contraband) may also be a large part of the activity that sustains the poor in rural areas or in border cities. To the extent that trade reform may seek to formalize these informal forms of market integration, it may hurt the poor.

D. Complementary Reforms¹⁸

Trade reform cannot succeed in promoting growth in isolation from other reforms. Complementary reforms enhance the flexibility of markets (which reduces the costs of adjustment), and facilitate the creation of markets that benefit the poor. For the poor, complementary reforms may be especially important to ensure that trade reform does not result in the disappearance of entire markets or products on which they depend. Some of the more important complementary reforms include:

Infrastructure development

This will allow the poor better access to principal markets for their products, and let them benefit from opportunities that might develop as a result of trade liberalization. Similarly, enhanced communication between markets will allow for the dissipation of price shocks and will ease the adjustment costs for the poor.

Facilitation of markets

On the one hand, this involves the deregulation of markets and the removal of monopolies (such as state trading monopolies) that might adversely affect the poor or impede their receiving the benefits of trade liberalization. But perhaps more important for the poor is the additional support they might need in terms of technical assistance, extension services in agriculture, business practice, and other areas to allow them to take advantage of new market opportunities. There are examples of this kind of facilitation for the introduction of horticulture and craft products in Zimbabwe (Winters, 2000b) that have benefited the poor. Developing credit markets is also an important part of this facilitation for the provision of important inputs into the creation of market activities.

¹⁸ This section relies on Winters (2000b).

Labor mobility and training

Rigidities in the labor market can also restrict the ability of the poor to move into other occupations and take advantage of new market opportunities, while at the same time minimizing the costs of trade liberalization. Market segmentation is one of the principal explanations given above for the fact that the benefits from trade liberalization in India and Bangladesh were not as widespread as could be expected. Worker training and worker assistance can also be an important tool in facilitating the transition of the poor from employment in sectors that suffer from trade liberalization to those that benefit.

E. Sequencing and Credibility

The broad-based liberalization advocated above does not discount the fact that there may be a need to sequence liberalization across different sectors at different speeds to ameliorate the costs of adjustment. This may postpone the benefits of liberalizing across the board, but in specific cases the tradeoff may be worth it. In particular, this may be true for sectors or markets where the liberalization has a very large effect on prices or the adjustment is very difficult and may take a long time. For example, under the North American Free Trade Agreement the liberalization of maize was delayed for 10 years and phased in to allow for adjustment among rural subsistence farmers in Mexico that depend upon this crop.¹⁹ The long adjustment periods were considered necessary because the price difference between Mexican domestic maize (long protected) and U.S. maize exports was very large.

In addition to sequencing across sectors, trade reform may be phased in gradually if it is thought that economic actors need more time to adjust to the new policy environment. An important condition for the implementation of long adjustment periods for liberalization of sensitive sectors, however, is the credible commitment of the government to trade reform and the communication of this commitment to economic agents. If the government's commitment to reform is not credible, then establishing long adjustment periods presents ample opportunities for affected parties to attempt to reverse planned reforms. If the commitment is not communicated clearly, then economic agents may not have an incentive to adjust to trade reform, believing that it will be reversed (or in the case of long implementation periods interminably delayed). A common strategy for enhancing the credibility of commitments to trade reform is for governments to enter into international agreements (either regional arrangements or multilateral agreements).

F. Social Safety Nets

Even the best designed trade reform will create winners and losers. In order to mitigate the possible adverse effects of transitory short-term adjustment costs on the poor, developing countries need to have well functioning social safety nets. Potential safety net measures could take the form of (i) targeted subsidies; (ii) cash transfers (e.g.,

¹⁹ Hufbauer and Schott (1993).

child allowances, fee waivers for basic services)—though these are rare in developing countries; (iii) severance pay and retraining for laid-off workers in companies that can no longer compete; and (iv) employment through public works (workfare programs), with appropriately set wages to ensure targeting of the truly needy (Gupta and others, 2000). The presence of such safety nets can ease the tension between implementation of ambitious but necessary trade reforms and the social objectives of alleviating poverty. The absence of appropriate safety net policies, however, should not be used as an excuse to forego trade liberalization. If an analysis of trade reform finds that the transition costs are likely to fall disproportionately on the poor, then the sequencing and phasing of the trade reform can be varied to take account of the need to mitigate these effects.

G. The PRSP Process and Social Safety Measures

Trade liberalization is often pursued in the context of programs supported by the Fund's Poverty Reduction and Growth Facility (PRGF). In this context, trade reforms will generally be part of a comprehensive policy package involving macroeconomic adjustment and broad-based structural reforms. Accordingly, the design and implementation of social safety nets would be consistent with this broad agenda rather than restricted solely to the potential adverse effects of trade liberalization. Under the new framework for poverty reduction supported by the International Monetary Fund and the World Bank, countries are expected to draft a Poverty Reduction Strategy Paper (PRSP) after a participatory process involving government, civil society, and other groups likely to be facing poverty. The participatory process, which is at the heart of the PRSP, is designed to strengthen the voice of the poor in economic decision-making, and to enhance the credibility of reforms by strengthening ownership. The PRSP process should also be very useful in identifying groups that could be affected adversely by trade and other reforms and in ensuring that social safety nets adequately assist those groups. In this regard, the ongoing efforts to improve poverty databases as a backdrop for PRSPs will be a critical input in this process.

In the deliberations leading up to the full PRSP, the country authorities, drawing on outside expertise as required, should to the extent possible (i) identify those groups that are likely to be affected by the trade reforms; and (ii) quantify the short-term adjustment costs of the reforms and the required budgetary allocations to ease the adverse impact on the poor. These costs could then be considered as part of the financing needs that might be covered including by external assistance. The support by the Fund and others would explicitly incorporate the costs of such social safety nets into an overall macroeconomic framework consistent with the broader objectives of achieving internal and external balance with sustained growth.

In those poor developing countries where social safety nets have not been established, it would be important at an early stage of the PRSP process to seek technical assistance to help establish institutions and procedures to monitor, control, and evaluate the implementation of the social safety nets to ensure their cost effectiveness by appropriate targeting of benefits. The need for such institutions is critical since experience suggests that implementation of social safety nets have been hampered by weak administration. Such mechanisms should improve transparency and increase cost

effectiveness of the programs. Efforts should also be made to establish permanent social protection arrangements (e.g. pensions and unemployment insurance) over time (IMF, 2000). The presence of such general features of safety nets can help those adversely affected by trade liberalization and other structural reforms.

V. POVERTY REDUCTION AND MULTILATERAL TRADE LIBERALIZATION

The discussion thus far has focused on the effects of autonomous (unilateral) trade liberalization on poverty reduction. Equally important for poverty reduction will be (i) unilateral actions by developed countries to improve market access for developing countries;²⁰ (ii) implementation by developed countries of commitments made under the Uruguay Round; and (iii) full participation by developing countries in the next Round of multilateral negotiations.

On improving market access for the poor, the Director-General of the WTO has proposed that developed countries consider granting bound duty- and quota-free market access for all products originating from the LDCs. The President of the World Bank and the Managing Director of the Fund support this initiative in order to address the problems of the poorest countries through coherent policies. They have also proposed that any market access initiative in favor of LDCs be extended to include the HIPC. ²¹ Such an initiative would complement debt relief, with improved market access and a reversal of the declining trend in foreign aid flows.

The implementation of commitments under the Uruguay Round in areas such as agriculture, textiles and clothing is of the utmost importance. Given the importance of agriculture to most poor countries and its potential to have a substantial impact on poverty alleviation in the rural areas, the interest of LDCs and HIPCs would be enhanced by ensuring that undertakings under the Uruguay Round on agricultural trade liberalization are implemented. Most of the HIPCs and LDCs rely substantially on agricultural production for their incomes, and it accounts on average for roughly 35 percent of their GDPs. Agricultural trade restrictions in developed countries tend to be

²⁰ For example, following the expiration of the Lomé Convention in early 2000, a successor agreement was signed in June 2000 to regulate commercial relations of the 71 nations composing the African, Caribbean and Pacific Group (ACP) with the European Union for the next 20 years. This new convention calls for an eight-year transition period during which regional WTO-compatible free trade agreements would be negotiated with the more advanced ACP countries. Least-developed ACP countries that are unable to adapt will continue to benefit from the EU's preferential system.

²¹ There are ten members of the WTO which are eligible for debt reduction under the enhanced HIPC Initiative but which are not considered LDCs. These are Bolivia, Cameroon, the Republic of Congo, Côte d'Ivoire, Ghana, Guyana, Honduras, Kenya, Nicaragua, and Senegal. Vietnam is eligible under the HIPC initiative but is not yet a member of the WTO.

very high, with average import tariffs of over 15 percent. Moreover, these tariffs understate the level of protection against agricultural exports from developing countries since they conceal highly restrictive tariff peaks (some as much as 100 percent), quotas, marketing arrangements in a number of products (sugar and bananas—though these are intended to help some select developing countries), and the use of export subsidies and other agricultural support. The above underscores that, substantial agricultural trade liberalization, including by developed countries, is crucial for poverty reduction in poor countries.

The Agreement on Textiles and Clothing (ATC), which phases out the Multifiber Arrangement (MFA), is to be implemented over a ten-year period ending 2005. More rapid implementation by developed countries could reduce skepticism among developing countries about the welfare gains from the Uruguay Round and potentially increase support for further multilateral trade liberalization.²² The abolition of the MFA could help contribute to poverty reduction in countries having an abundance of labor, with the benefits likely to be concentrated among the urban poor.

Regarding the new Round, though it is difficult to anticipate the timing for the upcoming negotiations following the failure of the WTO's Seattle Ministerial Meetings in December 1999, it is nonetheless clear that continued participation by poor countries in the international trading system will enhance their long term growth prospects and reduce poverty. For these reasons, developing countries could gain from participation in the next round of multilateral trade liberalization by ensuring that issues of particular importance to them feature in the Agenda for negotiations.²³ In general, improved market access should be at the top of their agenda. Key issues that would be of interest to developing countries would include agricultural trade liberalization, expansion of the services agenda under the WTO, and dealing with issues such as labor and environmental standards in a way that does not harm their competitiveness.

Some developing countries have expressed concerns that their interest could be adversely affected if the WTO system is used to enforce labor and environmental

²² The ATC stipulates that all bilateral quotas are to be phased out over ten years in four steps at the beginning of 1995, 1998, 2002, and 2005, covering cumulative totals of 16, 33, 51, and 100 percent respectively of 1990 import volumes. Indications are that, with the addition of previously unrestricted products to the ATC product list, the targeted liberalization has not been achieved.

²³ Several studies have estimated that further trade liberalization could result in global welfare gains ranging from \$220 billion annually for a 20 percent reduction in trade barriers to trade in goods and services to \$400 billion per year for a 50 percent reduction in such barriers (Australian Government (1999), the European Commission (1999)). Of this amount, developing countries are estimated to account for a third to one-half of the welfare gains.

standards.²⁴ The concern is that interest groups in developed countries could use such standards as a way to restrict imports from those countries that are able to use abundant labor resources for production. Given the relative abundance of unskilled labor in developing countries, an agreement on these issues should avoid diminishing poorer countries' comparative advantage in producing labor-intensive products, and thereby raising their standards of living.

The developing countries also stand to gain much from the liberalization of services. In particular, poor countries could benefit substantially if a WTO-based agreement were reached under which developing countries could supply services (such as for construction) through temporary entry by services providers, thereby allowing construction companies in developed countries to employ workers from the poor countries.²⁵

The debate is ongoing on whether stronger protection under Trade-Related Intellectual Property Rights (TRIPs) is beneficial for the poor countries. For net importers of products such as pharmaceuticals and other technologies, it has been argued that stronger patents would have a negative impact on poor countries' welfare by, for example, preventing the importation of drugs from cheap sources. Of course, over time, as the poor countries begin to produce IPR-sensitive products (e.g., music) stronger protection would be beneficial, and in the much longer run the dynamic impact of stronger TRIPs on the welfare of poor countries is not clear. However, in the upcoming review required under the built-in agenda of the Uruguay Round, developing countries have an interest in obtaining a more sympathetic interpretation of their rights in relation to traditional goods and remedies and in relation to compulsory licensing in pharmaceuticals. The potential effect could be to lower the price of drugs. Recognizing the inability of some developing countries to finance the cost of certain medicines, major pharmaceutical companies based in developed countries have recently agreed to provide South Africa with anti-AIDS cocktail drugs at prices well below those they charge in developed markets.

²⁴The advancement of sound labor laws and environmental standards as important policy objectives that need to be pursued by all countries. These issues are better addressed by other institutions, the International Labor Organization, and by multilateral treaties, than by the WTO. Domestically, the protection of core labor standards can be accomplished through more effective and direct means such as improved and widely accessible education (including, for example, by subsidizing books to reduce the cost of education) and thus avoid or reduce the exploitation of child labor.

²⁵ Most developed countries maintain restrictions on such service trade through various requirements (including the applicant's financial position) imposed on requests for entry visas (Hertel and Hoekman, 2000).

VI. CONCLUSION

The links between trade reform and poverty are diverse and complex. The direct effects of trade liberalization operate through changes in prices or availability of goods and services for which the poor are net suppliers or net consumers. But there are also numerous economy-wide indirect effects of trade liberalization that can affect the poor, for example through spillovers of price and quantity effects between markets, or through the effects of trade reform on government fiscal policy, economic growth, and economic instability.

Because of the complexity of these linkages, there are few systematic empirical investigations of how trade reforms have affected the poor. The studies that do exist often refer to general structural reform (where trade is included) and are not focused on the poor, or are very specific case studies. They are useful in pointing out various factors that could influence the impact of trade liberalization on the poor in particular cases, but they do not provide conclusive answers to the general question of how trade reform (and other structural reforms) affect the poor. An obvious, yet important, conclusion is that much more work needs to be done in this area.

With these caveats in mind, the results of the empirical analyses surveyed in the paper suggest that trade reform has a positive effect on employment and income for the poor. Even in the short term, the adjustment costs associated with trade reform seem to be small in relation to the benefits, and these benefits seem to be fairly widespread. However, as in all structural reforms, there are winners and losers, and the losers in some cases include the poor. This should not be construed as an excuse to avoid trade reform, but rather as an inducement to implement it in ways that cushion the poorest. In practice, this implies designing trade reform to minimize the costs to the poor where possible, and to provide adjustment assistance to the poor.

It is important to point out that most recent detailed empirical studies concentrate on short-run effects of trade liberalization, during the period in which the economy cannot adjust completely to the new trade regime. In addition, they do not include the effects of changes in complementary policies that facilitate adjustment to the new trade equilibrium. Thus these studies almost certainly overestimate the costs and underestimate the benefits of liberalization, even for the poor. Over the medium-term, higher economic growth will result in greater economic opportunities and higher incomes for the poor that will overwhelm the negative distributional effects from trade reform.

From the analysis of the linkages between trade liberalization and poverty some general prescriptions for pro-poor trade reform can be drawn. First, poor people need to participate in markets to benefit from trade liberalization. Therefore, reforms that enhance or facilitate their participation will benefit them. These reforms, which should be carried out at the same time or before trade liberalization, include the provision of infrastructure that facilitates links between regions and markets and the provision of technical assistance, credit, extension services and other types of training to allow the

poor to take advantage of market opportunities. Macroeconomic stability and growth will also be indispensable for the poor to benefit.

Although there are long-term benefits from trade liberalization, in the short term, adjustment costs may be significant and may hurt the poor. Since the poor are less able to tolerate these costs without irreversible damage, policies need to be in place to assist them. However, these policies need to be designed so as not to affect the incentives to adjust to trade policy reform. In this connection trade reform can be carried out in such a way as to spread the costs of adjustment as widely as possible and minimize them. For example, promoting broad-based liberalization, allowing movements in the exchange rate to support trade liberalization, and promoting flexibility of labor markets will ease adjustment costs for the poor, especially if they are concentrated in the sectors most severely affected by the reform. The sequencing and phasing of trade reform in sensitive sectors or industries can promote adjustment, though policy makers must be careful not to let extended timetables erode the credibility of their commitment to the reform.

In order to mitigate the short-term adjustment costs for the poor, it is important to have well-functioning safety nets that would assist groups negatively affected by trade liberalization, and to quantify the budgetary costs of offsetting some of these adverse effects. This could be done in the context of the participatory process of the Poverty Reduction Strategy Papers for countries that have Fund- and Bank-supported programs.

Finally, in light of the importance of trade liberalization for sustained economic growth, developing countries would benefit by fully participating in the forthcoming multilateral trade negotiations. Key areas where further liberalization can have a significant effect on poverty alleviation will be in agriculture; textiles and clothing, and services. It will be important in this regard to resist protectionist policies that could reduce poor countries' comparative advantage in producing labor-intensive goods. In addition, one action of significant benefit to the least developed countries would be the granting of bound duty-free and quota-free access for their exports into industrial country markets.

References

- Aitken, Brian, Gordon H. Hanson, and Ann E. Harrison, 1994, "Spillovers, Foreign Investment, and Export Behavior," NBER Working Paper No. 4967 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Anderson, J., and D. Marcoullier, 1999, "Trade, Insecurity, and Home Bias: an Empirical Investigation," NBER Working Paper No. 7000 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Anderson, J., P. Neary, and G. Bannister, 1995, "Domestic Distortions and International Trade," *International Economic Review*, Vol. 36, No. 1, pp. 139–57.
- Australian Department of Foreign Affairs and Trade, 1999, "Global Trade Reform."
- Bayoumi, Tamim, D. Coe, and E. Helpman, 1996, "R&D Spillovers and Global Growth," IMF Working Paper WP/96/47 (Washington: International Monetary Fund).
- Ben-David, Dan, and others, 2000, *Trade, Income Disparity and Poverty*, World Trade Organization Special Study No. 5, (Geneva: World Trade Organization).
- Bussolo, M., and H. Solignac Lecomte, 1999, "Trade Liberalization and Poverty," ODI Poverty Briefing No. 6, December 1999 (Washington: Overseas Development Institute).
- Center for International Development, Harvard University; London School of Hygiene and Tropical Medicine; World Bank, 2000, "Economics of Malaria," draft manuscript.
- Corden, W. M., 1974, *Trade Policy and Economic Welfare* (New York: Oxford University Press).
- Currie, J., and Ann E. Harrison, 1997, "Trade Reform and Labor Market Adjustment in Morocco," *Journal of Labor Economics*.
- Devarajan, Shantayanan and Dominique van der Mensbrugghe, 2000, "Trade Reform in South Africa: Impacts on Households," paper presented at the conference on Poverty and the International Economy, sponsored by the World Bank and the Parliamentary Commission on Swedish Policy for Global Development, Stockholm, October.
- Dixit, A., 1985, "Tax Policy in Open Economies," Chapter 6 in *Handbook of Public Economics*, edited by Alan J. Auerbach and Martin Feldstein (Amsterdam: North Holland).
- and Victor Norman, 1980, *Theory of International Trade* (Cambridge, England: Cambridge University Press).

- Dollar, David, and Aart Kraay, 2000, "Growth *Is* Good for the Poor," Development Research Group, The World Bank (Washington: World Bank).
- Easterly, William, and Aart Kraay, 1999, "Small States, Small Problems?" World Bank Policy Research Working Paper No. 2139 (Washington: World Bank).
- Ebrill, Liam, and others, 1999, *Revenue Implications of Trade Liberalization*, IMF Occasional Paper No. 180 (Washington: International Monetary Fund).
- Edwards, Sebastian, 1995, *Crisis and Reform in Latin America: From Despair to Hope*, (New York: Oxford University Press).
- European Commission, 1999, "The Millennium Round: An Economic Appraisal."
- Evans, D., 2000, "Trade and Poverty: A Story of Two Policy Agendas," mimeo, IDS, University of Sussex.
- Frankel, J., and D. Romer, 1999, "Does Trade Cause Growth?" *American Economic Review*, June 1999, pp. 379–99.
- Friedman, Jed, 2000, "Differential Impacts of Trade Liberalization on Indonesia's Poor and Non-poor," paper presented at the conference on Poverty and the International Economy, sponsored by the World Bank and the Parliamentary Commission on Swedish Policy for Global Development, Stockholm, October.
- Gavin, M., 1999, "Latin American Central Banks: Reticent to React," *Latin American Economic Policies*, Vol. 7, 2nd Quarter, Office of the Chief Economist, Inter-American Development Bank (Washington: Inter-American Development Bank).
- Grossman, Gene M., and Elhanan Helpman, 1991, *Innovation and Growth in the Global Economy* (Cambridge: MIT Press).
- Gupta, Sanjeev, and others, 2000, *Social Issues in IMF-Supported Programs*, IMF Occasional Paper No. 191 (Washington: International Monetary Fund).
- Haggblade, Steven, 1990, "The Flip Side of Fashion: Used Clothing Exports to the Third World," *Journal of Development Studies*, April, Vol. 26(3), pp. 505–21.
- Hanson, Gordon H., and Ann E. Harrison, forthcoming, "Trade and Wage Inequality in Mexico," *Industrial and Labor Relations Review* (Ithaca, New York: Cornell University).
- Harrison, Ann E., and Gordon H. Hanson, 1999, "Who Gains from Trade Reform? Some Remaining Puzzles," NBER Working Paper No. 6915 (Cambridge, Massachusetts: National Bureau of Economic Research).

- Hausmann, R., and M. Gavin, 1996, "Securing Stability and Growth in a Shock Prone Region: The Policy Challenge for Latin America," Working Paper No 315, Office of the Chief Economist, Inter-American Development Bank (Washington: Inter-American Development Bank).
- , C. Pages-Serra, and E. Stein, 1999, "Financial Turmoil and the Choice of Exchange Rate Regime," Working Paper No. 400, Office of the Chief Economist, Inter-American Development Bank (Washington: Inter-American Development Bank).
- Hejazi, Walid, and A. Edward Safarian, 1999, "Trade, Foreign Direct Investment and R&D Spillovers," *Journal Of International Business Studies*, Vol. 30, No. 3.
- Hufbauer, G., and J. Schott, 1993, *NAFTA: An Assessment*, Institute for International Economics, (Washington: Institute for International Economics).
- Khan, Mahmood Hasan, 2000, "Rural Poverty in Developing Countries: Issues and Policies," International Monetary Fund Working Paper WP/00/78 (Washington DC: International Monetary Fund).
- Krueger, Anne O., 1999, "Developing Countries and the Next Round of Multilateral Trade Negotiations" (Washington: World Bank).
- Kruger, D., 2000, "Redistribution Effects of Agricultural Incentives Policies in Nicaragua," background paper for the Nicaragua Poverty Assessment 2000 (College Park: University of Maryland).
- Lundberg, Lars, and Lyn Squire, 1999, "Inequality and Growth; Lessons for Policy," mimeo (Washington: World Bank).
- Lustig, Nora, 1998, *Mexico: The Remaking of an Economy* (Washington: Brookings Institution Press).
- , 2000, "Crisis and the Poor: Socially Responsible Macroeconomics," Sustainable Development Department Technical Paper Series No. POV-108, Inter-American Development Bank (Washington: Inter-American Development Bank).
- Matusz, Steven J., and David Tarr, 1999, "Adjusting to Trade Policy Reform," World Bank Policy Research Working Paper No 2142 (Washington: World Bank).
- Morley, S., 1999, "Impact of Reforms on Equity in Latin America," Background Paper for the *World Development Report, 2000/2001* (Washington: World Bank).
- Ravallion, Martin, 1997, *Can High Inequality Developing Countries Escape Absolute Poverty?* (Washington: World Bank).

- Rodriguez, Francisco, and Dani Rodrik, 1999, "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence," NBER Working Paper No. 7081 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Rodrik, D., 1999, "Why Is There So Much Insecurity in Latin America?" mimeo (Washington: World Bank).
- Romer, Paul M., 1989, "What Determines the Rate of Growth and Technical Change?" The World Bank Policy, Planning and Research Working Paper No. WPS 279 (Washington: World Bank).
- Shatz, Howard J., and David G. Tarr, 2000, "Exchange Rate Overvaluation and Trade Protection: Lessons From Experience," World Bank Policy Research Working Paper No. 2289 (Washington: World Bank).
- Sharer, Robert, and others, 1998, *Trade Liberalization in IMF-Supported Programs*, World Economic and Financial Surveys (Washington: International Monetary Fund).
- Wei, Shang-Jin, 2000, "Natural Openness and Good Government," mimeo (Washington: World Bank).
- Winters, L. Alan, 2000a, "Trade, Trade Policy and Poverty: What are the Links?" CEPR Working Paper Series, No. 2382 (London: Center for Economic Policy Research).
- , 2000b, "Trade Liberalization and Poverty" Paper prepared for the UK Department for International Development, mimeo (Brighton: University of Sussex).
- Wood, A., 1997, "Openness and Wage Inequality in Developing Countries: The Latin American Challenge to East Asian Conventional Wisdom," *The World Bank Economic Review*, Vol. 11, No. 1, pp. 33–57.
- World Bank, 1997, *Chile: Poverty and Income Distribution in a High-Growth Economy; 1987–1995*, Latin America and the Caribbean Region, Vol. 1, (Washington: World Bank).
- , 2000, *World Development Report, 2000–2001*, "Attacking Poverty" (Washington: World Bank).