A. Introduction

The issue

Openness and trade liberalization are now seen almost universally as key components of the national policy cocktail required for economic growth and aggregate economic well-being. They are believed to have been central to the remarkable growth of industrial countries since the mid-20th century and to the examples of successful economic development since around 1970.

The continued existence of widespread and abject poverty, on the other hand, represents perhaps the greatest failure of the contemporary global economy and the greatest challenge it faces as we enter the 21st century. This essay asks whether the two phenomena are connected. Specifically it asks whether the process of trade liberalization or the maintenance of a liberal trade regime could have caused the poverty that so disfigures modern life, or whether, in fact, it has contributed to its alleviation.

Extreme poverty—living on, say, \$1 a day per head—is basically restricted to the developing countries, and so I focus exclusively on them. I also focus largely on the effects of those countries' own trade policies—i.e. how their own openness or trade liberalization might affect their own poverty. In almost all circumstances countries are more affected by their own trade policies than by their partners', and, of course, it is the former over which they have most influence. As will become plain, however, most issues concerning partners' policies or shifts in world markets can be analyzed using the same tools as I discuss below for countries' own policies.

The approach

If trade liberalization and poverty were both easily measured, and if there were many historical instances in which liberalization could be identified as the main economic shock, it would be simple to derive simple empirical regularities linking the two. Unfortunately, none of these conditions is met, and so we are reduced to examining fragmentary evidence on small parts of the argument.² The key to interpreting this evidence in terms of the effects of trade on poverty, as well as to designing policies to alleviate any ill effects, is to understand the channels through which such effects might operate. That is, in the absence of clear empirical regularities, we need to develop a theory of how trade shocks might translate

into poverty impacts in order to consider how plausible such links look in the light of what we do know about the way economies function; to identify the places in which it would be sensible to seek empirical evidence; and to help us to fit the jigsaw puzzle of fragmentary evidence into a single overall picture.

It will be obvious from the previous paragraph that tracing the links between trade and poverty is going to be a detailed and frustrating task, for much of what one wishes to know is just unknown. It will also become obvious below that most of the links are very casespecific. Hence general answers of the sort "liberalization of type a will have poverty impacts of type are just not available—poverty impacts will depend crucially on specifics such as why people are poor to start with, whether the country is well-endowed with mineral wealth and what sort of infrastructure exists. Rather the essay will develop a way of thinking about the poverty effects of trade and trade reform, ending up with a series of questions which will help policy makers to predict the effects of specific reforms.

In the broadest possible terms, the essay concludes that trade liberalization is generally a strongly positive contributor to poverty alleviation—it allows people to exploit their productive potential, assists economic growth, curtails arbitrary policy interventions and helps to insulate against shocks. The essay recognizes, however, that most reforms will create some losers (some even in the long run) and that some reforms could exacerbate poverty temporarily. It argues, however, that in these circumstances policy should seek to alleviate the hardships caused rather than abandon reform altogether.

A yardstick for economic policy

The fact that trade reforms can create some losers means that one needs to be explicit about the criteria for judging policy shocks. If one's approach is to condemn any shock that causes even one individual to suffer a reduction in income, it is unnecessary to carry out any analysis. Given the differences of interest between people and the strongly redistributive nature of trade policy internally, virtually any policy will fail this test. Even the requirement that no household fall temporarily into poverty is likely to be extremely restrictive in poor

I do not seek to define to the appropriate metric for judging policies here, but it is important to be aware in considering the arguments below that all judgements



focusing on households I am consciously setting aside gender and intergenerational issues, but I will return to these very shortly.

In this simplest case, we can think of household welfare as depending on income and the prices of all goods and services that the household faces. The former must be measured as so-called 'full income' comprising (a) the value of the household's full complement of time—the maximum amount of time that could be spent working, perhaps 12 hours per person per day—valued at the prevailing wage rate, (b) transfers and other non-earned income such as remittances from family members

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practise. Not all will be feasible or relevant in every case, of course, but among the factors to be included are:

Unfortunately while the arguments of the previou

A corresponding taxonomy can be constructed for export goods, starting at the bottom of the column. An export good is produced, put into local marketing channels, aggregated into national supply of the good and finally sold abroad. At each stage the institutions involved incur costs and add mark-ups, all of which enter the final price. If the export price of the good is given by the prevailing price on world markets, all such additions come off the farm-gate price that determines household welfare.

In determining the effects of world price or trade policy shocks on poor households it is vital to have a clear picture of these transmission channels and the behaviour of the agents and institutions comprising them. For example, sole buyers of export crops (i.e. those to whom sellers have no alternative) will respond differently to price shocks than will producers' marketing cooperatives. Regulations that fix market prices by fiat or by compensatory stock-piling can completely block the transmission of shocks to the household level.⁵

Even more important, all these various links must actually exist. If a trade liberalization itself—or, more likely, the changes in domestic marketing arrangements that accompany it—lead to the disappearance of market institutions, households can become completely isolated from the market and suffer substantial income losses. This is most obvious in the case of markets on which to sell cash crops, but can also afflict purchased inputs and credit. If official marketing boards provided credit for inputs and against future outputs, whereas post-liberalization private agents do not, no increase in output prices will benefit farmers unless alternative borrowing arrangements can be made.

The importance of transmission mechanisms is well illustrated by the contrasting experience of markets in Zambia and Zimbabwe during the 1990s—Box 1 (Oxfam—IDS, 1999). In Zambia, the government abolished the official purchasing monopsony for maize; the activity became dominated by two private firms which possibly colluded to keep prices low and which abandoned purchasing altogether in remote areas. Even if the latter was justified economically in the aggregate, it still left remote farmers with a huge problem. This was exacerbated by the difficulties of their re-entering subsistence agriculture, given that the necessary seed stocks and practical knowledge had declined strongly during the (subsidized) cash-crop period. In Zimbabwe, by contrast, three private buyers for cotton emerged after privatization, including one owned by the farmers. Here the abolition of the government monopsony resulted in increased competition and prices and farm incomes rose appreciably. In a less extreme example Glewwe and de Tray (1989) show how transport and storage costs

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Box 1: Markets—better, worse and missing

The over-riding conclusion of the field research described in Oxfam—IDS (1999) and Winters (2000a) is the critical role of markets in determining the poverty impacts of trade and other liberalizations. Where conditions for the poor have improved this has usually been associated with the better performance of and access to markets. Where they have worsened, faulty markets are generally to blame and in the extreme cases, the problem is often missing markets.

We illustrate this with two cases deriving from trade and associated reforms over the early nineties in Zimbabwe and Zambia.

Cotton in Zimbabwe:

Despite the hesitant and partial mature of formal liberalization, in Zimbabwe, there appeared to be a substantial improvement in market. Over the period 1991-97, including an increase in competition in the cotton market (Table 1). Before the reforms, the Cotton Marketing Board used its monopsony to impose low producer prices on farmers in order. Over the textile industry. In absolute terms, the impact will have been greater for larger farmers, simply because they produced more cotton. But ultimately it probably affected smaller farmers most severely because they lacked the large farms' ability to diversify into other crops such as horticulture.

Following deregulation and privatization, there is now substantial competition between three buyers, one of which is owned by farmers themselves. Again, in absolute terms this must have benefited larger farmers more than small ones, but there have been particular gains for the smallholders. These have included the fact that the buyers have chosen to compete with each other not only on price (which has increased significantly), but also by providing extension and input services to smallholders. While the latter are obviously reflected in the prices that the farmers receive, their provision fills a gap that would otherwise exist in small farmers' access to inputs (including, in this case, information). Hence, the changes have assisted small farmers both through an increase in price and by enabling them to produce more.

Table 1: Changes to markets: cotton in Zimbabwe

Before:

- monopsony buyer (CMB) used low producer prices to subsidize inputs into textile industry;
- commercial farmers diversified into unregulated crops such as horticulture and tobacco; small farmers suffered;

Now:

- deregulation and privatization;
- competition between three buyers;
- some buyers offering input supply;
- prices have risen (in current terms).

Maize in Zambia:

Such changes are precisely what the reforms in Zambia were intended to achieve. But here the result was very different. In the case of maize (Table 2), the better-favoured areas have seen no effective change in market conditions, while the less-favoured regions have witnessed a deterioration. Given that the status quo ante was relatively favourable for smallholders, especially in remote areas, it is easy to see why these changes failed to improve the conditions of poor maize farmers.

Under the old regime, remote farmers were subsidized by those close to the line of rail (through pan-territorial pricing) and small farmers by larger ones with storage facilities (through pan-seasonal pricing). In addition, the agricultural sector as a whole was subsidized by mining. All of these subsidies have now been removed. Remote farmers are unambiguously worse off, whilst larger ones and those close to the line of rail are probably also less well off, since the subsidies from mining probably exceeded the tax in favour of remote areas.

But the deterioration in the situation of remote farmers is substantially worse than would have arisen solely from the removal of pan-territorial pricing. For them, functioning markets have largely disappeared. The status quo ante was one of a sole parastatal buyer; the status quo is that often there is no buyer at all or, if there is, the terms of trade are so poor that transactions occur on a barter basis.

It is difficult to disentangle the relative importance of institutional and infrastructural factors in this market failure. There has been such a sharp deterioration in transport infrastructure that it is difficult for traders to reach areas that are more than a relatively short distance from a major route. It is an open question whether trading would be more active if infrastructure were better, or whether there are also institutional impediments. But in other areas, there are clear institutional constraints

gardening discussed above under the gender dimension of adjustment.

The second set of goods for which we do not observe prices is those that are just not available. While conceptually simple to deal with in our schema—the price of a good is infinity when it is not available—changes in the set create complex measurement problems.8 They may be important, however, even for the poor, as Booth et al (1993) document in Tanzania. They may also be critical from a policy perspective, as, for example, when non-tariff measures or regulation exclude certain goods from the market. An interesting case-study is Gisselquist and Harun-ar-Rashid (1998) who discuss the restrictions on inputs into Bangladeshi agriculture and show how their relaxation greatly increased the availability of, for example, small tractors and water pumps to small farmers.

Not only are prices affected by spill-overs and the trading domain, but the distribution chain may also be. Agents' and institutions' willingness and ability to pass price changes through will be partly determined by the domain of the market they serve. In practice the information required to predict second round effects is very complex. In many cases, however, the shocks induced by trade policy changes will be sufficiently specific and/or small for us to ignore the second-round effects, and we can focus just on the direct impacts described in rectangles in Figure 2.

D. Enterprises: profits, wages and employment

Three elements of the enterprise sector

The left hand side of Figure 2—the elipses—describes a completely different and equally important link from trade to poverty—that arising through its effects on enterprises. 'Enterprises' includes any unit that produces and sells output and employs labour from outside its own immediate household. Thus as well as registered firms proper, it includes some of the informal sector and larger farms that employ workers part-time or full-time. The important distinction is that outputs are sold and inputs n

Box 2: Why the Stolper-Samuelson theorem is not sufficient to analyze poverty
The Stolper-Samuelson (SS) theorem, that an increase in the price of the labour-intensive good raises real labour incomes and reduces real returns to capital, is a hugely powerful result of direct and immediate relevance to the link between international trade and poverty. Like all theory, however, it is built on restrictive assumptions, and once these are violated its power and

on any subject)—generates very powerful results indeed. It proves that, under particular conditions, an increase in the price of the good that is labour-intensive in production will increase the real wage and decrease the real returns to capital.¹⁰

Unfortunately, for all its elegance, Stolper-Samuelson is not sufficient to answer questions of trade and poverty in the real world, and it must be supplemented by more heuristic but less specialized approaches—see Box 2 on 'Why the Stolper-Samuelson Theorem can't analyze poverty'. Its basic insight, however, applies under a very broad set of circumstances. An increase in the price of a good—exportable, importable or non-traded—will increase the incentive to produce it. This will raise the returns to factors of production specific to that good e.g. labour with a specific skill, specialist capital equipment, brand image—and, assuming that some increase in output is feasible, will also generally affect the returns to non-specific, or mobile, factors. Typically, the returns to at least one such factor will increase and those to at least one other fall. Presuming that the poor have only their labour to sell, the focus for poverty studies is on wage rates—usually on unskilled labour and wages.

Broadly speaking, if the prices of unskilled-labour-intensive goods increase we would expect unskilled wages to increase. As these industries expand in response to their higher profitability, they absorb factors of production from other sectors. By definition, an unskilled-labour-intensive sector requires more unskilled labour per unit of other factors than do other sectors, and so this shift in the balance of production increases the net demand for unskilled labour and reduces it for other factors. If poor households depend largely on unskilled wage earners, poverty will be alleviated by the resulting wage increase (although, of course, head-count indices will vary only if the wage increase moves families from one side of the boundary to the other).

It is important to note that in the previous paragraph, the first-order effect is the total production effect, not any shift in factor proportions. It arises because the industry using relatively more unskilled labour increases its demand for _ factors while other industries release _ factors. It is the different compositions of these different sectors' preferred bundles of factors that matters, not any shifts within them. 11 A parallel analysis concerns technical progress. Increases in the general level of efficiency in an industry will reduce its price and/or increase its profitability. This will increase its level of output and thus generally increase demand for the factors that produce it.12 Factors specific to that sector will benefit, as will mobile factors that are used intensively in the sector. This effect could be offset if technical progress is heavily biased against one factor or another (the factor saved loses out), but if progress is concentrated on only a few sectors it is generally more important to know which sectors and to know their factor intensities, than to know the factor-bias of the technical progress. If, on the other hand, technical progress is uniform across sectors, the composition effects

largely cancel out and factor bias is the key to predicting the factor demand effects of technical progress.

In world terms developing countries are clearly labourabundant, so that freer trade (whether generated by their own or by industrial countries' trade liberalization) gravitates towards raising their wages in general. However, within developing countries it is not clear that the least-skilled workers, and thus the most likely to be poor, are the most intensively used factor in the production of tradable goods. Thus while, for example, the wages of workers with completed primary education may increase with trade liberalization, those of illiterate workers may be left behind or even fall. One of the reasons that agricultural liberalization is such an important goal for future trade policy is that for this sector we can be reasonably confident that low-skilled workers in rural areas—the majority group among the poor—will benefit through the production responses.

It is sometimes suggested—at least implicitly—that the factor intensity approach to the distributional effects of trade policy is refuted by the failure of Latin American liberalization in the 1980s to alleviate poverty. Without denying the need for refinement in the argument, I believe that the alleged surprise arose more from faulty premises than from theoretical failure. Thus, as Wood (1997) argues, by the 1980s Latin America was not obviously the unskilled-labour abundant region of the world economy: both China's 'arrival' in world markets and Latin America's abundant natural resources suggest otherwise. Similarly the growth of outsourcing, for which Northern firms do not find it most efficient to seek the lowest-grade labour, suggests that Mexican exports are now intensive in labour that is relatively skilled by local standards—Feenstra and Hanson (1995). Finally, of course, it may take time for markets to clear. Thus while Chile's liberalizations (trade and otherwise) were associated with worsening inequality over the 1980s inequality measures have now returned to pre-reform levels—and at vastly higher average income levels and lower poverty levels—World Bank (1997) and Ferierra and Litchfield (1999).

'Development theory'—infinitely elastic factor supplies

One exception to the rule that an increase in the demand for a factor increases its wage (real return) is if the factor is available in perfectly elastic supply, i.e. if effectively any amount of the factor can be obtained at the prevailing wage. Then the wage (return) will be fixed exogenously—e.g. by what the factor can earn elsewhere, which is assumed to be unaffected by the trade policy shock that we are considering—and the adjustment will take place in terms of employment.

First, suppose that labour is the elastically supplied factor. Most generally this will be because the formal sector can draw effectively infinite amounts of labour out of the informal sector or subsistence agriculture at the subsistence wage. This is the famous 'reserve army of labour' model propounded by Nobel Laureate W Arthur

¹⁰ The Stolper-Samuelson Theorem is described in all international economics textbooks—see, for example, Winters (1991) or, in more detail, Bowen, Hollander and Viaenne (1998). A full account appears in Deardorff and Stern (1994).

¹¹ In fact, if the wage for unskilled labour increases, all sectors will switch to slightly less unskilled-labour intensive techniques of production.

¹² Only if demand is inelastic will the increase in demand fail to outweigh the savings in factors implicit in the greater efficiency.

Lewis (1954). Of course, if the formal wage is no more than the subsistence wage (as the model strictly implies),

benefiting existing urban workers, who would receive a wage increase, and imposing no expected cost on migrants from the subsistence areas). However, if the urban poor are more readily measured or observed than the poor on rural subsistence farms, this could lead to the appearance of greater poverty.

In fact, neither of the polar extremes—of wholly fixed or wholly flexible labour supplies—is likely to be precisely true. Hence in practical assessments of the effects of trade shocks on poverty, determining the elasticity of labour supply and knowing why it is non-zero, is an important task.

A possible indicator of the relative importance of the sorts of effects just described comes from CUTS, (1999). Using the years 1987/8 to 1990/1 to reflect preliberalization performance and 1991/2 to 1994/5 post-liberalization performance, CUTS finds formal manufacturing sector employment in India growing faster after liberalization, and wages more slowly: employment at 3.8% and 9.4% and wages at 8.1% and 7.0% respectively. Similar results apply at the sectoral level. However, as Winters (2000a) observes, the success of the reserve army model in explaining the evolution of formal manufacturing in India is not really surprising: the sector accounts for only about 1.3% of the Indian workforce!

A much more perplexing aspect of the Indian reform of 1991 is that it appears to have been associated with a in employment in informal significant manufacturing, especially in labour intensive sectors. This decline outweighs the increase in formal employment and seems to have been concentrated in the rural areas. In Winters (2000a), I speculate that the most likely explanation—if, indeed, the data are to be believed—is that the real depreciation that accompanied liberalization (which will have raised the prices of traded relative to non-traded goods) switched output from non-tradables to tradables and that the former are disproportionate users of the informal sector. If true, this reminds us that poverty impacts must consider the fate of the nontradables sector as well as that of tradables.

From a poverty perspective, of course, the important question is what happened to those who lost their informal jobs. If they could move back into subsistence or other agriculture at approximately the same wage, not much happened to them in poverty terms, and the observed increase in formal jobs seems to offer a net gain. If, on the other hand, the loss of an informal job signals a descent (deeper) into poverty, the net effects of these changes is negative for poverty alleviation. Unfortunately, we just do not know the answers to these questions, although other data in CUTS (1999) shows that wages in the informal sector are quite often below poverty levels. Formal sector wages, on the other hand, seem to be uniformly substantially above poverty levels.

Capital might also be available in infinite supply—e.g. say, from multinationals at the world rate of return. In this case the inflow of capital into the liberalized sector is likely to boost wages and/or employment, which will increase the welfare benefits and, if they exist, the poverty alleviation benefits, of a trade liberalization. It is important to remember, however, that if capital inflows make for

larger effects when sectors gain from liberalization, they are equally likely to increase them in sectors that lose.

The latter is not to say, however, that capital mobility causes otherwise avoidable losses from trade liberalization. When capital has been attracted into a country by distortionary policies—e.g. tariff protection and tax holidays—the inflow could have been immiserizing. Then, while the outflow resulting from the reform of these policies will impinge directly on workers in the affected sector, the overall welfare effects taking account of spill-overs to other sectors will be positive and larger than if there had been no immizerising investment to undo. If the distorted sector was particularly crucial in addressing poverty, however, it might be that such liberalization worsens poverty, at least in the short-run until the affected workers have found alternative jobs and/or the government has diverted some of the gains elsewhere in the economy into poverty alleviation policies in the stricken sectors.

Of course, if our target country does not face exogenously given prices for every good, developments in the enterprise sector will affect the prices faced by consumers and hence feed back into column 2 of Figure 2. For tradable goods this is probably not a major consideration because few developing countries have significant market power over the medium and long terms, but for non-tradables it will be important. Given weak infrastructure and trading institutions, many goods and services are effectively non-traded in the developing world; their prices will be determined by the need to equate local supply and demand and by the influence on supply of endogenous changes in factor prices.

Differentiated products

An important distinction in the analysis of the enterprise sector is whether or not goods are homogeneous across foreign and domestic suppliers. Homogeneous goods must have the same prices, and so international trade defines the prices of both traded and domestic varieties. Trade prices essentially determine internal producer and consumer prices and analysis is straightforward. The alternative view is that goods are differentiated, so that each variety faces its own separate downward-sloping demand curve, with links between goods depending on the degree of substitutability between varieties. In this case the transmission of trade policy shocks to domestic prices is less direct, usually affecting more goods but by less than in the homogeneous goods case. This typically also attenuates the shock to factor prices, because, as more goods are affected, the net shifts in the relative demands for different factors are less extreme. (The more goods involved, the more likely are changes in factor demand to be off-setting.) The degree of substitutability between domestic varieties and those traded varieties that are affected by the trade reform becomes a critical parameter in this view of the world—see Falvey (1999): the higher it is, the more the shock is focused on the related domestic varieties.

As I noted at the end of the preceding section, a trade reform will sometimes be sufficiently straightforward that it will not be necessary to trace all the connections mentioned here, but rather focus on just a very few of them. This can only be determined case-by-case, however.

E. Taxes and spending

The right hand set of boxes in Figure 2—the trapezoids—illustrates the third of the major static links between trade and poverty: via taxes and government spending. The common presumption is that falling revenues can squeeze social expenditures and hurt the poor, but, in fact, this is far from inevitable.

For most countries, the early stages of trade liberalizations in the 1980-90s entailed converting quantitative restrictions and regulations into tariffs and reducing high tariff rates. Particularly when the latter was accompanied by a reduction in the scope of tariff exceptions and exemptions it was as likely to increase tariff revenue, as to reduce it—Pritchett and Sethi (1991) and Hood (1998). Thus in this first stage, concerns over revenues can be over-stated, although, of course, the in taxation implied by reducing effective , / , exemptions could raise prices. If these increases in prices impinge heavily on the poor, they could worsen poverty even if they increase economic welfare overallparticularly if the government is not efficient in spending the revenue it collects. On the whole, however, given that exemptions are mainly granted to the rich and influential, it is unlikely that their loss is anti-poor.

Eventually, however, trade liberalization will reduce tariff rates so far that government revenue falls. This iter, trand4ge 5.r is anti-pue falls. Tw (between trade and povertys unlik2 Tj 13 732 TTw (D /F1 5c Tjto incre.96 j 0 -10.uce it0n2 Tj T* -0.1535 oD 0.093 Tw (88 13 732 12kely thastar) Tgj ati-puelej 7obviotage 7.os not qatej 5 , aion we

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tariffs on a good made it more difficult to tax local producers because they could more plausibly threaten to move off-shore and supply the market from abroad. In this case overall efficiency considerations would still mandate the tariff cut. However, if, for some reason, consumption of the good could not be taxed instead of production (and remember that the tariff cut will have reduced consumer prices, so there will be space for the former) there is a danger of governments losing revenue. Of course, as I noted above, falling revenue does not inevitably lead to declining poverty-alleviation.

An inability to tax capital is clearly a problem for governments intent on redistributive policies, and it clearly reduces the set of available options. It should not, however, be taken as precluding all possibilities. First, most countries collected only a small proportion of their revenues from capital taxation even when their economies were very closed. Second, in fact, many governments subsidize inward investment rather than fret about not being able to tax it. Third, there are other redistributive policies which are not vulnerable to this difficulty. For example, for tackling poverty, Bowles (1999) lists land reform, re-assigning property rights implicit in use of the commons, public-brokered risk sharing, greater accountability in the provision of public services, and removing or reducing discrimination. None of these is easy, but they certainly show that taxing capital is not the only route to helping the poor.

F. Shocks, risks and vulnerability

Thus, for example, the Uruguay Round constraints on variable levies or on export subsidies could increase instability, and hence poverty, in certain economies even if they raise average incomes. It is not clear how important this possibility is, however: I know of no documented cases that it has actually occurred. 16

Turning briefly to country-level data, there is a presumption that more open economies suffer more heavily from terms of trade shocks, e.g. Rodrik (1998) and that this, in turn, slows their development or worsens their welfare. The first part of this question has at least

difficulties of measuring trade stances once one comes inside the boundary of near autarchy: for example, tariffs need to be aggregated, quantitative restrictions assessed and then aggregated, and the degree of credibility level of enforcement measured—see Winters (2000c). Overall, the fairest assessment of the evidence is that, despite the clear plausibility of such a link, open trade alone has not yet been unambiguously and universally linked to subsequent economic growth. It has certainly not, however, been identified as a hindrance. Moreover, trade liberalization has a positive role as part of a package of measures promoting greater use of the market, more stable and less arbitrary policy intervention, stronger competition and macro economic stability. With the exception of the last, an open trade regime is probably essential to the long-run achievement of these stances, and it probably helps with the last as well (Krueger 1990b). Thus, taken as a whole, trade liberalization is a major contributory factor in economic development.

Any link from openness to growth probably operates at least partly by enhancing technical progress: for example, by making new inputs, new technologies, or new management techniques available to local producers. Such flows could arise from trade—either imports or exports—or from direct flows of technology from abroad.

The evidence that access to imports enhances performance is quite strong—Esfahani (1991) and Feenstra et al (1997)—while that which postulates a link from exporting to technology is, surprisingly to some, weaker. While macro studies and case-studies have suggested links, detailed and formal work based on enterprise data is doubtful: Bigsten et al (1999) find links for Africa, while Kraay (1997) is ambiguous for China and Tybout and Westbrook (1995) find nothing for Latin America. Similarly it is quite difficult to prove that FDI boosts efficiency e.g. Haddad and Harrison (1993). In both cases the problem is one of causation: efficiency and exporting are linked because efficient firms export, FDI and efficiency because investors choose efficient firms and sectors. While there is undoubtedly a connection between openness and the dynamism of an economy, it is more complex than economists sometimes choose to believe. Openness probably needs several concomitant policies or conditions before it will generate growth.

Of course technological flows need not depend just on trade or commercial transfers of know-how; they may arise autonomously or through direct interventions in research and development in favour of developing into poverty as an economy adjusts to open trade, and what can be done to prevent this and help them if they

The most significant adjustment problem lies in factor markets, especially employment, and so I concentrate on that. There are two separate questions: how long do spells of unemployment/underemployment last and who suffers them. (It is the nature of adjustment or transition costs that they are temporary. Permanent losses are strictly the business of previous sections, although, of course, in practice it requires great confidence in one's analytical and empirical tools to claim to be able to separate permanent from temporary job loss ex ante.)

How long does unemployment last?

The key to answering this question lies in the speed of labour turnover and the flexibility of the labour market. Unfortunately, there is apparently very little research directly on labour turnover in developing countries-Matusz and Tarr (1998). The latter suggest that, in industrial countries (where liberalization more frequently entails the contraction of a sector, not its demise), it is surprisingly rapid in most circumstances. If so, unemployment of displaced workers will be relatively short-lived. In some cases workers displaced from lowpaid jobs not only found new jobs quickly, but at higher wages—Jacobson (1978). In developing countries such benign effects are also a realistic possibility, although the evidence is based on aggregate employment data rather than surveys of workers. For example, Mauritius has successfully combined a limited trade liberalization (in an Export Processing Zone) with poverty reduction—see, for example, Milner and Wright (1998), who identify increasing unskilled and female wages as exports sat con

should we do'. I conclude, therefore, with a brief discussion of some of the policy issues involved.

The discussion above suggests that trade liberalization can have both positive and negative effects on poverty. If poverty alleviation is a major goal of national policy, it is important to think how international trade policy can be harnessed to assist it. This section briefly considers some possible policy responses starting with trade policy and moving through to a broad set of what I call complementary policies. It does not deal with the trade-off between poverty and other goals, but it starts by reiterating that even within the poverty arena trade-offs exist.

Judging policy

If one is to enter the debate, one needs a yardstick against which to judge policy. If that is to condemn any shock that causes even one individual suffer a reduction in income, it is unnecessary to carry out any analysis. Given the heterogeneity of households and that trade policy is strongly redistributive between people in the domestic economy, all policies will fail this test. Even the requirement that no household fall temporarily into poverty is likely to be too restrictive to permit any action in poor countries. The more utilitarian view that the number of households (or persons) in poverty should be reduced is more appropriate. Even this, however, needs to be mediated by attention to the depth of poverty and to the different ways in which different dimensions of poverty respond to shocks.

In practical circumstances, it is also important to recall that it is easier to identify losers from trade policy than potential gainers. The losers from reform are identifiable, concrete and personified—Krueger (1990a)—whereas the gains are diffuse and appear merely prospective and theoretical. Only in a proportion of cases can one confidently identify the sectors that will gain (e.g. when large export taxes are removed), and even then, although one might identify capital or resource owners who stand to benefit, it is almost impossible ex ante to name the workers who will fill the new jobs and/or benefit from pay rises. Couple this with a natural tendency to place greater weight on (and hence to be more vocal about) declines in welfare than on equal increases, and it is easy to see how attitudes towards liberalization policy are biased towards antipathy. Moreover it is usually the case that the poor are much less able to articulate their concerns than the middle and elite classes.

None of this should be construed as saying that all criticism of trade liberalization is misguided and biased, but it is a warning that the volume of opinion is not a sufficient indicator of the true merits of a policy change. It also re-emphasizes the importance of political leadership in explaining the relative merits of different policies, even difficult and subtle ones like trade liberalization!

Trade policy

Consider, first, how trade reform itself might be managed from a poverty perspective. One response to the fear that a trade liberalization will cause poverty is "don't do it", but this is not satisfactory. While it has proved hard

to isolate the effects of liberal trade on economic growth empirically, there is widespread agreement that it has an important role to play. It not only brings advantages directly but it is also important in the constellation of polices designed to ensure efficiency and competition in markets, and transparency and predictability in policy-making. Thus in the long run liberal trade assists poverty alleviation and should figure in the poverty-conscious government's armoury.

Another response is "don't do it all: while everyone is in favour liberalization in general, certain sectors or products should be exempt". In fact, all countries have such exceptions—e.g. agriculture in Europe, clothing in the United States—but that does not necessarily make them good economics. There undoubtedly are cases where an isolated intervention in trade would be beneficial to immediate economic welfare and/or to poverty alleviation. However, given the difficulties of identifying these cases, of preventing their capture by interest groups and of avoiding the systemic signal that lobbying for intervention pays, it is unlikely to be beneficial overall to try to pursue them. Thus while one does not need to progress all the way to free-trade to reap the benefits of liberalism, the case for planning a series of exceptions is not strong. One needs very strong evidence of the efficacy of such interventions, and this is, on the whole, missing. Simply appealing to the experience of East Asia is not persuasive. It is not beyond dispute that their trade interventions were important or beneficial (Lee, 1995, suggests the very opposite for Korea), and it is far from certain that other countries have the policymaking institutions to be able to replicate East Asian policy stances effectively.

A third response is "don't do it now". This is a more useful response in some circumstances. For example, trade reform in the midst of recession seems likely to more, and more durable, transitional unemployment than reform in a boom; where investment is necessary to allow the production of export-quality goods, time may be desirable to permit it to occur. There is, however, a world of difference between committing to policies with long adjustment periods and postponing liberalization because 'the time is not ripe'. The key is credibility that reform will actually occur. Adjustment costs may be lower if adjustment can be spread somewhat through time, but they are probably enlarged if adjustment is resisted in the hope that the threat of liberalization will go away. It is notable that some trade reforms have been accelerated once they have been launched—e.g. implementation of free trade in the EEC, of the Kennedy Round tariff cuts, and of the tariff cuts planned in the ASEAN Free Trade Agreement—usually at the behest of the private sector. This presumably reflects the fact that, once it is accepted that reform will occur, business is keen to adjust rapidly.

Thus sequencing a major trade liberalization is probably desirable—just as, say, the Uruguay Round permitted long adjustment periods. This should not merely entail postponing the largest adjustments longest, however, but should pay attention to the different adjustment needs of different sectors and to the interactions between different parts of the package. For example, if the inputs and outputs of a particular sector

Box 4: Creating markets in Africa The IDS—13 Tj -14.6159 -11.533 /F123-0. 11 ishin4.177 8Tw (Nash287nities wf utiv Tc 4.44 . Fhieving mic 0 Tw4998 Tj -14.6159:9 Tr

Strictly, these policies include very general prescriptions for addressing poverty, such as the distribution of productive assets, adequate education and health provision, and the encouragement of civil society and participation and voice among the poor. However, I restrict this brief discussion to those that refer rather specifically to reaping the benefits and avoiding the costs of trade liberalization.

The critical issue in the poverty impacts of trade liberalization, especially for surprises therein, is the functioning of markets. A trade liberalization needs to be preceded by thought about whether any markets are likely to fail and accompanied by monitoring of the same. Policies designed to ensure that markets continue to function or develop where required seem likely to have high pay-off for both aggregate income and for poverty alleviation. Among the important factors identified by Winters (2000a) are:

Infrastructural support

Potential opportunities for poor producers to benefit from a more open trading regime have been lost because critical infrastructure was either absent or had deteriorated. In both Zimbabwe and Zambia remote farmers have found their opportunities constrained by an inability to reach major market centres. In the same way, many of the benefits of relaxed retailing regulations and the availability of new and/or cheaper goods have been confined to urban and peri-urban areas.

Market institutions

Just as important are failures in market institutions. The poor frequently seem unable to attain the economic mass required for the establishment of markets that once established may be viable. Policy should aim at the

creation of the market as an institution, not the ongoing subsidization of market activity. Part of facilitating the poor's participation in markets may be finding means to allow them to combine very small consignments of inputs or outputs into reasonably sized bundles. This is not the poor combining to achieve a measure of market power, which is not usually realistic, but of reducing transactions cost sufficiently to make it worth dealing with them. Box 4 cites two examples of market support from Oxfam-IDS's African field-work.

Missing credit markets

Development economics has many examples of missing credit markets preventing development, and the same phenomenon is visible in responses to trade liberalization. Thus, for example, achieving minimum consignment size might entail hiring draught power or seasonal labour, but this is not possible without credit. Similarly, establishing informal businesses in activities such as trading may require more capital than the poor can raise. These cases in which poverty constrains the responses to incentives replicate the results of Lopez, Nash and Stanton (1995) in their panel study of Mexican agriculture. I have nothing to add by way of solutions, but note the issue as one of considerable importance.

Establishing business

If trade liberalization opens up business opportunities in new areas, new businesses are likely to be required. If the regulations for establishing these are restrictive, and their ability to get inputs (especially utilities) weak, these opportunities will go begging. Similarly regulations on expansion and on labour recruitment and separation could curtail the willingness of existing firms to expand. The reservation of particular sectors for small firms in India

may be having this effect. There is clearly a trade-off between labour protection and the number of jobs, but we suspect that for the purposes of poverty alleviation it will call for weaker rather than stronger protection. A success story of business de-regulation is the growth of maize hammer milling in Zambia and Zimbabwe—Box 5.

Pre-requisites or concomitants?

Whether these complementary policies should be pre-



Changes in the prices of goods affect wages according to factor intensities. Predicting either the price effects or the factor intensities of affected sectors can be complex, as was seen with the Latin American reforms of the 1980s and 90s. In addition, if factor supplies show some elasticity, part of a trade shock will show up as changes in employment rather than in factor prices. In the limit, a perfectly elastically supplied factor will experience only employment effects. This is most pertinent for labour markets. If the prevailing wage is determined by subsistence levels, switching people from one activity to another has no perceptible effect on poverty. If, on the other hand, the trade-affected sector pays higher wages (because, say, it has an institutionally enforced minimum wage), increases in activity will tend to reduce poverty and declines increase it. The formal/informal divide is important in this respect.

In all this, it is important to remember the difference between the functional and the personal distribution of income. Falling unskilled wages generate poverty only to the extent that the poor depend disproportionately on such wages.

One's immediate reaction is that cutting tariffs will reduce government revenue. While in the limit this clearly true—zero tariffs entail zero revenue—many trade reforms actually have small or even positive revenue effects, especially if they convert NTBs into tariffs, remove exemptions and get tariff rates down to levels that significantly reduce smuggling. Even where revenue falls, it is not inevitable that expenditure on the poor will decline. That, ultimately, is a policy decision.

If a trade liberalization allows people to combine 'national' and 'international' activities, it is most likely to reduce risk: foreign markets are likely to be less variable than domestic ones and even if they are not, risk spreading is likely to reduce overall risk. If, however, trade

reform leads to more or less complete changes in activities, there is a possibility that risk increases as the new activity is riskier than the old one.

The very poor can not bear risk easily. Because the consequences of even small negative shocks are so serious for the poor, they may be unwilling to take opportunities that increase their average income if they also increase the chance of losses. This might leave them with only the negative elements of a reform package. Similarly, if a reform makes it more difficult for the poor to continue their traditional risk-coping strategies, it may increase their vulnerability to poverty even if it increases mean incomes.

Economic growth is the key to sustained poverty reduction. Only if it is very unequalizing, will it increase absolute poverty.

Large shocks can create qualitatively different responses from smaller ones—for example, markets can seize up or disappear altogether. Thus if a reform implies very large shocks for particular localities mitigation in terms of phasing or, better, compensatory-complementary policy, could be called for. There is a trade-off, however, for typically larger shocks will reflect bigger shortfalls between current and potential performance and hence larger long-run gains from reform.

The non-poor will typically have assets that carry them through periods of adjustment. This might be unfortunate for them, but it is not poverty strictly defined. The poor, on the other hand, have few assets, so even relatively short periods of transition could induce descent deep into poverty. If the transition impinges on the poor there is a strong case for using some of the long-run benefits of a reform to ease their adjustment strains.

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