TRADE LIBERALIZATION AND POVERTY IN ASIA: ISSUES AND POLICY OPTIONS

by

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Nearly three billion people who are trying to survive on less than $2 a day deserve the chance for a better future. Poverty is not just the greatest challenge to peace and stability in the 21st Century, but our greatest moral challenge as well … Trade liberalization is the best form of help for self-help.. (IMF Managing Director, Horst Kohler, 2002).

Trade expansion is a key component of globalization, but only a few countries have so far benefited … If it is well structured and sequenced, trade liberalization can be an engine of development and poverty reduction. Export opportunities and import competition, and the doors liberalization opens for productive domestic-foreign partnerships, create positive incentives. Incentives to reduce prices to consumers, raise producers' productivity, and increase the stock of knowledge on which successful economic expansion and poverty reduction increasingly depend.. (World Bank President, James Wolfensohn, 2002).

(O)peness to trade helps developing countries catch up with the rich ones, and .. the poor generally benefit from the faster growth that trade liberalization brings.. (Former WTO Director General, Mike Moore in the Financial Times, June 19, 2000).

1. Introduction

Economic globalization, which is a process rather than an event, may be broadly defined as the shrinkage of economic distances (i.e. costs of doing business) between nations. This process has been aided and abetted by three factors. First, are the innovations and advances in transportation, information and communications technologies (ICTs) such as the Internet (Baldwin and Martin, 1999). Second, is the push by the various international institutions towards global economic liberalization (i.e. reduced policy barriers to trade and investment) through the General Agreement on Tariffs and Trade (GATT) and the World Trade Organisation (WTO) in the case of world trade in goods and services, and the International Monetary Fund (IMF) in the case of global finance and capital flows. Third, is the shift in perceptions about the appropriate role of government and near-global consensus on the need for extensive, albeit judicious use of market incentives for economic success[1].

Economic globalization has been greeted with as much enthusiasm as it has condemnation. Public protestations during recent WTO, IMF, World Bank and World Economic Forum (WEF) meetings and industrial country summits suggest that the road towards further global integration may be far from smooth. While some of the backlash against globalization - so-called “globaphobia” - undoubtedly lacks intellectual basis (Smadja, 2000), it would be a mistake to arbitrarily dismiss the recent anti-globalization protests and the *legitimate* social concerns that might have been raised[2].

Among the most important concerns as an economy liberalizes and integrates with the world economy is the need to protect the most vulnerable in society and ensure that their well-being improves over time. What is the link between economic globalization and poverty? The issue is far from straightforward. As a first step to answering the question, it is important to keep in mind that economic globalization involves at least three separate but not necessarily mutually exclusive trends: *globalization of production and trade*, *globalization of finance and capital flows* and *globalization of labour*.

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[1] Note that the use of markets does not by any means imply complete *laissez faire*. As Rodrik (2000) observes:

> The idea of a mixed economy is possibly the most valuable heritage that the twentieth century bequeaths to the twenty-first in the realm of economic policy … (W)e enter the twenty-first century with a better understanding of the complementarity between markets and the state -- a greater appreciation of the virtues of the mixed economy. That is the good news. The bad news is that the operational implications of this for the design of development strategy are not that clear. There remains plenty of opportunity for renewed mischief on the policy front .. (T)he state and the market can be combined in different ways. There are many different models of a mixed economy. The major challenge facing developing nations in the first decades of the next century is to fashion their own particular brands of the mixed economy (pp.1 and 3).

According to him, the five essential functions that public institutions must serve for adequate functioning of markets are: protection of property rights, market regulation, macroeconomic stabilization, conflict management, and social insurance. We revisit the issue of social insurance in Section 3.

At the risk of generalizing, there is limited evidence to suggest that globalization of finance and capital flows (other than foreign direct investment) has had a discernible positive impact of growth (see Eichengreen, 2001 and references cited within), let alone poverty reduction. Indeed, all that can be said with certainty is that if international financial liberalization does not take place in a well-sequenced and timed manner it could lead to episodes of severe financial instability and distress (Bird and Rajan, 2001 and Cobham, 2001)[3]. Annex 1 highlights the various channels via which financial crisis could impact poverty and income distribution (also see Winters, 2001). Baldacci et al. (2002) confirm that financial crises negatively impact income distribution and poverty, and the adverse effects are stronger in countries which have relatively more skewed income distribution (also see World Bank, 2000).

One aspect of globalization that would undoubtedly reduce poverty worldwide would be to allow greater mobility across national borders of unskilled labour (Siebert, ed., 1999). However, social and political compulsions and biases prevent many industrial countries from taking a more *laissez faire* attitude towards such cross-border flows (Bauer and Zimmermann, 2000 and Simon and Lynch, 1999). Consequently, the global market for unskilled labour remains extremely fragmented. As Streeten (2001) concludes:

> (T)here is much less international migration than during 1870-1913. Barriers to immigration are higher now than they were then, when passports were unnecessary and people could move freely from one country to another to visit or work..The eighteenth-century French economist François Quesnay added to *laissez-faire* the concept of *laissez-passer* (unrestricted travel and migration), but this is forgotten today, perhaps because..it.. would interfere with..social stability and cohesion, or security, in the countries receiving the migrants…But.. these objections also apply to the free movement of goods and services. In any case, there is an inconsistency.

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[2] Lal (1999) highlights some of the fears and dangers associated with globalization. Also see Rajan (2001).

[3] See Rajan (2002a) for a recent discussion of international financial liberalization and its various definitions.

This said, there is an intense competition between countries for skilled personnel ("global talent"). The economic implications of this "brain drain" (defined loosely as the out-migration of human capital from developing to developed countries) for developing countries is not altogether apparent. On the one hand, the developing countries from which the emigrants originate stand to gain through (a) remittances (which in turn adds to the country's Gross National Product); (b) the establishment of diasporic business and trade networks; and (c) other externalities from return migrants (something that East Asia including China appears to have benefited from)[4]. On the other hand, the emigration of skilled workers denies poor source countries the opportunity to recoup the costs of subsidizing higher education (particularly relevant for countries like India), as well as prevents them from attracting more knowledge-intensive industries and building high quality public institutions (on this point, see Desai, et al., 2001). A recent report by the International Labour Organization (ILO) suggests that on a net basis the losses to developing countries from the brain drain can be substantial (Lowell and Findlay, 2001)[5].

This leaves the third aspect of globalization, viz. trade and production. Watkins (2002) makes the following pertinent observation:

> Openness - along with associated free market reforms - holds the key to making globalization work for the poor…International trade has the potential to act as a powerful catalyst for poverty reduction, as the experience of East Asia demonstrates. It can provide poor countries and people with access to the markets, technologies, and ideas needed to sustain higher and more equitable patterns of growth … But if globaphobia is unjustified, so too is "globaphilia" - an affliction, widespread on Nineteenth Street in Washington, that holds that increased integration through trade and openness is an almost automatic passport to more rapid growth and poverty reduction (p.1).

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[4] See Casella (1999) for discussions of the importance of diasporas and networks in promoting trade and investment.

[5] It is in this context that many have suggested the imposition of a "brain drain tax" (Desai et al., 2001). Given that this proposal is a non-starter in the face of developed country opposition, Lowell and Findlay (2001) suggest a set of other measures that both developed and developing countries might take to minimize the costs of brain drain to the latter.

This paper examines the nexus between trade liberalization and poverty and discusses what types of government policies may be needed to ensure that trade liberalization actually benefits the poor.

The remainder of this paper is organized around three main sections. Recognizing that growth is a *necessary* condition for a sustained reduction in poverty, the next section discusses the analytical and empirical links between trade and growth. Growth is by no means a *sufficient* condition for poverty reduction. Therefore, section 3 focuses on the issue of trade, income distribution and poverty. What needs to be done to ensure that growth will not bypass the poor in developing countries? Section 4 briefly delves into the complementary policies that need to be undertaken if significant inroads are to be made in reducing poverty. These two sections by and large concentrate on merchandise and – to a lesser extent – agricultural trade. The final section concludes the paper with a few remarks on the nexus between trade and development including the role of international trade in services. Four Annexes follow the main text. The first outlines various ways in which financial crises impact the poor. The second highlights limitations of conventional trade theory in evaluating trade liberalization's impact on poverty. The third sketches the dynamic impact of trade liberalization on the functional distribution of income. The fourth summarizes policy components for national strategies to alleviate rural poverty.

2. Trade Liberalization and Income Growth

2.1 What does the Literature Conclude?

Trade liberalization ought to provide the usual Harberger Triangle welfare gains by reducing, if not entirely eliminating, the wedge between domestic and foreign prices. Assuming demand elasticity = ε and tariff rate or tariff equivalent = t, the size of the welfare loss, in a partial equilibrium analysis, i.e. the Harberger Triangle, is simply $t\varepsilon^2/2$. So if the tariff equivalent is ten per cent and the elasticity of demand is one, the welfare loss is just half of one per cent (of consumer expenditure). Most empirical studies measuring these welfare losses find them to be about this level (Baldwin, 1992). Does this imply that trade protectionism is not “significantly” harmful? The answer is no for at least three reasons.

One, Tullock (1967) has noted that even in a static setting, the welfare costs of protectionism may actually be a much larger “Rectangle” once the costs of monopoly power, tariffs, rent-seeking activities or other pre-existing distortions are all taken into account. Thus, removal of such distortions could significantly boost income. Two, once again in a static sense, Romer (1994) has argued strongly that the non-rivalry of many goods which enter as inputs (like blueprints) implies that if such goods (characterized by large fixed costs and constant marginal costs) are impeded, there could be potentially large losses to the economy (as much 10-12 percent of GDP). Three, there could be a host of other dynamic gains to be had from trade and the introduction of competition in terms of scale economies, technological innovations, learning-by-doing effects, etc. which in turn lead to sustained rates of growth (not just one-off increases in income levels) (Grossman and Helpman, 1991 and Srinivasan, 2001).

However, there are also endogenous growth models that suggest that trade may be growth-stunting (Grossman and Helpman, 1991 and Srinivasan, 2001). This may occur if the forces of dynamic comparative advantage push an economy away from the direction of activities that stimulate long-run growth. Thus, as Rodrik and Rodriguez (2000) note, “there should be no theoretical presumption in favor of finding [an] unambiguous negative relationship between trade barriers and growth rates in the types of cross-national data typically analyzed". Accordingly, as with most things, the nexus between trade and growth can only be settled empirically.

It is fair to say that the bulk of the empirical literature using cross-country data has found international trade in goods to be growth inducing. Recent studies that have found a positive association between openness and trade include Coe et al. (1997), Dollar (1992), Edwards (1993, 1998) and Sachs and Warner (1995), and most recently, Morrissey et al. (2002) and Dollar and Kraay (2001b). There are, however, two important problems with most existing studies.

One, while the studies may have unearthed a positive association between trade and growth, most are unable to conclude anything about causality per se. Does openness lead to growth; does growth lead to openness (for instance, the richer country gets the more likely it is to dismantle trade barriers); or are both caused by a third factor (i.e. are trade and income both endogenous)? Rodrik (2000b) for one holds the view that both are caused by the quality of institutions as illustrated by Figure 1. Harrison (1996) concludes that the results of previous studies on the direction of causality between openness and growth are "mixed", with causality being bi-directional.

In an important study, Frankel and Romer (1999) attempt to decipher the causation between trade and growth. The authors undertake a cross-sectional study involving 100 countries during the period since 1960. They deal with the potential endogeneity problem of the trade variable by instrumenting it with a set of variables usually used in the estimation of the gravity model for trade flows. While results vary on the basis of the specific data set and equations used, the general conclusion is that openness in general does have a statistically and economically significant effect on growth[6].

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[6] Dollar and Kraay (2001b) do also make an attempt to control for reverse causation from income growth to changes in trade shares.

Second, even if the causality from trade to growth is accepted, the Frankel-Rose study, like all others, is subject to an important criticism in that they link growth with trade *outcome* measures (export, imports) rather than trade *policy* measures (like tariffs and nontariff barriers). This point was first clearly made by Moon (1997) but more recently and forcefully by Dani Rodrik (for instance, see Rodrik and Rodriguez, 2000 and Rodrik, 2000b). As Rodrik (2000b) notes:

> Saying that participation in world trade is good for a country is as meaningful as saying that upgrading technological capabilities is good for growth…The tools at the disposal of governments are tariff and non-tariff barriers, not imports or exports … (T)ariff measures are a reasonable proxy for trade restrictions … (T)he relevant question for policy makers is not whether trade per se is good or bad … but what the correct sequencing of policies is and how much priority deep trade liberalization should receive early in the reform process..(pp.1 - 3).

In other words, while there does exist a link between *de facto* trade openness and growth, one cannot say for sure that there is a nexus between trade liberalization and growth as a host of factors such as macroeconomic environment, external environment and such have not been properly controlled for. It is extremely difficult to sort out the effects of trade liberalization from other domestic policy options particularly as countries that undergo trade reforms do so as part of an overall growth-enhancing policy package. Increased openness may be the result of trade liberalization per se or because of other nontrade policy actions or some combination of the two[7]. Indeed, the recent World Bank (2002b) report entitled <u>Globalization, Growth and Poverty</u> which attempts to offer evidence of the benefits of being a “globalizer” implicitly recognizes that there may *not* be a direct link between trade policy measures and outcomes. As the report states:

> We label the top third “more globalized”..(countries) .. without any sense implying that they adopted pro-trade policies. The rise in trade may have been due to other policies or even to pure chance … (In fact) … (w)hether

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[7] Rodrik and Rodriguez (2000) go on to assert, "the search for such a relationship is futile".

> there is a casual connection from opening up trade to faster growth is not the issue (pp.34 and 36).

2.2 Implications for Policy: Focus on Growth[8]

What does all of this imply for policy? The link between growth and *trade openness* per se as opposed to growth and *trade liberalization* suggests (a) that governments should certainly aim to enhance their effective degree of trade integration with the rest of the world and (b) trade liberalization per se may not be sufficient to achieve this.

"Opening doors" and "getting the prices right" are clearly necessary but insufficient to ensure an outward oriented policy is successful in terms of promoting export-led growth. At the least, for trade liberalization to translate into *de facto* openness and growth, it is imperative that appropriate macroeconomic and exchange rate policies also be in place. In other words, to be successful, trade reforms must be part of a logically consistent package of sound macroeconomic policies and structural reforms. Sharer (2001) echoes a broadly similar view in his review of Africa's prospects in the global trading system:

> The causes of Africa's weak trade performance are complex…A country's ability to improve its trade performance in the short run is determined mainly by its macroeconomic and structural policies. Trade and growth prospects are enhanced by a macroeconomic framework that emphasizes appropriate fiscal and monetary policies conducive to price stability, saving and investment, and a sustainable external current account position. These factors are critical in maintaining a stable economic environment and, thus, in encouraging productive activities.

Even in the widely cited study by Dollar and Kraay (2001b), the authors appropriately make the following important caveat.

> It would be naïve to assert that all of this improvement in growth should be attributed to the greater openness of these globalizing economies: all of them have been engaged in wide-ranging economic reforms..China,

[8] Section 3 discusses the issue of income distribution and poverty more specifically.

> Hungary, India, and Vietnam…strengthened property rights and carried out other reforms..Virtually all of the Latin American countries included in the grouping stabilized high inflation and adjusted fiscally (pp.9-10)[9].

FDI and Export Platforms: Beyond disciplined macro policies, most developing countries that have been successful global exporters have also found it necessary to encourage the inflow of export-oriented FDI which is able to exploit the country's comparative advantage and plug into export markets. As McMillan et al (2002) note, "FDI is viewed as an important companion strategy to market liberalization, a way of jump-starting labour-intensive, export-oriented economic activity". FDI, particularly when it involves multinationals, brings in capital, technical know-how, organizational, managerial and marketing practices and marketing and global production networks, helping accelerate the process of economic development in host countries. Not surprisingly, there is broad agreement that in a relatively non-distorted domestic policy environment FDI fosters growth by promoting greater competition and trade and facilitates a country's overall integration with the global marketplace (Lipsey, 2000 and Stiglitz, 1998)[10]. For instance, a host of studies has found that FDI has been a major conduit to China's export and overall economic growth (Lardy, 1994, Lemoine, 2000 and Wei, 1996), as it did in the rest of the Asian Newly Industrializing Economies (ANIEs) in the 1980s until mid 1990. Borensztein, et. al. (1995) reveal that FDI has a net crowding-in effect on domestic private and public investment thus advancing overall economic growth. McMillan et al, (2000) and Radelet (1999) discuss ways of promoting export oriented FDI and we do not elaborate on them here.

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[9] Ironically, the Dollar and Kraay (2001b) study is somewhat less subject to the caveat/criticism as they do try to control for the effects of other contemporaneous changes in policies and institutions that may impact growth by including measures of monetary policy stability, financial development, and political instability.

[10] Of course, in a distorted trade and investment environment, capital inflows may be "immiserizing" or growth reducing.

Radelet (1999) stresses the importance of export platforms (such as *export processing zones*, *bonded warehouses*, *duty exemption systems*, *duty drawback systems*, *duty rebate systems*, and other kinds of facilities) as being instrumental in promoting manufactured exports in developing countries in the early stages of liberalization. The key aspect of such export platforms is that they allow exporters to import capital and intermediate goods on duty-free terms. These platforms are meant to shield exporters from the distortions in the rest of the economy like high tariffs and unwieldy and corrupt bureaucracies and other factors that might adversely impact international competitiveness. In addition, becoming a successful exporter of parts, components and accessories (PCAs) trade (discussed in Section 3.3) requires that the country be able to freely import intermediate goods[11].

EPZs (or export platforms more generally) are by no means a foolproof method for promoting investment, exports and growth. While some Southeast Asian economies, China and Mauritius are often held up as examples in which FDI and EPZs have transformed the economy (see Tseng and Zebregs, 2002 for China's experience and Subramaniam and Roy, 2001 for the Mauritian experience), they have been dismal failures in many other countries. Radelet (1999) discusses the characteristics of successful export platforms and concludes that such platforms are most effective when they are well managed with minimal red tape including streamlined and predictable customs procedures. Competition between various export platforms may be helpful, and they should be built in appropriate locations and provide reliable infrastructure and utilities if the necessary investment and export responses are to eventuate.

[11] Radelet (1999) and Rodrik (1995) in fact note that the greatest benefits of an outward oriented strategy is the ability to import important intermediate capital goods needed to facilitate an investment boom which in turn stimulates exports. In other words, while many observers have assumed that export booms stimulated the East Asian growth in the 1980s and 1990s, Rodrik argues that the causation runs from imports to investment (which incorporate new technologies) and then exports.

Subramaniam and Roy (2001) emphasize the importance of strong institutions and governance structures as being prerequisites for successful export platforms. -- These are probably pre-requisites for successful development in general. -- Strong political push and administrative support are also important determinants of success of such platforms (Kundra, 2001).

It is important to stress that export platforms are meant to be temporary solutions to overcome distortions that afflict the rest of the economy. An oft-noted criticism of such export platforms is that they could lead to uneven or enclave type development. However, persistent enclave development is really a reflection of the heavy distortions and unattractiveness of the rest of the domestic economy as opposed to a drawback of export platforms per se. If anything, such export platforms ought to have important learning effects for the rest of the economy.

3. Trade Liberalization and Poverty

3.1 Comparative Advantage

Even if trade liberalization is linked to more rapid growth, this does not necessarily imply that it is an effective instrument for reducing poverty. For instance, if a growth strategy based on trade openness leads to a significant worsening of income inequality of households at the bottom of the income strata, it may not make any discernible in-roads in alleviating poverty. In such circumstances it would be necessary for outward orientation to promote growth at a “sufficiently rapid” pace for the poor to have any chance of benefiting via “trickle down” effects. However, the political sustainability of such inequitable growth is doubtful; the distributional character of economic growth matters as much as the rate of growth. But does outward orientation lead to “equitable” growth?

What does theory tell us about the functional distribution of outward-oriented growth? Starting with the workhouse 2x2x2 (two-factor, two-goods and two-countries) Stolper-Samuelson (SS) model, theory suggests that international trade will lead to a rise is the relative returns of the abundant factor; unskilled labour in the case of developing countries. Thus, according to theory, the poor (unskilled labour) will be the largest beneficiary of trade liberalization, i.e. openness in developing countries ought to be "pro-poor" in addition to being "pro-growth". Similarly, in the age-old Arthur Lewis (1954) dualistic paradigm with surplus labour reserves (elastic labour supply), trade and growth ought to be employment-intensive, thus benefiting the poor. Findlay (1995) has combined the insights from the conventional SS model with the Lewis framework to show how trade in a labour surplus economy can lead to a virtuous cycle of employment, capital accumulation and growth. This seems consistent with the East Asian experiences in the 1970s to mid 1990s[12]. However, if the reserve army of labour is delinked from the growth enclaves (e.g. rural versus urban segmentation for instance), growth might bypass one segment of the poor[13]. Similarly, even the simple SS model does not offer definitive conclusions if one or more assumptions are relaxed (see Annex 2 and Davis, 1996). If one recognizes the possibility of different degrees of mobility of some or all factors over time, the income distribution consequences of trade liberalization is further complicated (see Annex 3).

[12] More to the point, East Asia has long been characterized as having followed a "flying geese pattern" (FGP) of production and trade. The FGP, due to Japanese economist Akamatsu Kaname (1962), has been used to describe the shifting pattern or spatial reorganization of international production and comparative advantage across East Asian countries. The FGP pattern has been largely investment-driven (Athukorala and Hill, 1998 and Rajan and Sen, 2001).

[13] More specifically, with such segmented labour markets, adjustment will be reflected in increases in real wages and not employment. One can identify four sectors of the labour market in developing countries: formal urban, formal rural, informal urban and informal rural.

In short, theory does not offer categorical insights with regard to the functional distribution of income; the impact on trade liberalization on income distribution is, among other things, time-dependent.

. What do the data tell us? Empirical studies have by and large found that growth has *not* given rise to more unequal income distribution (Dollar and Kraay, 2001a, Morrissey et al., 2001, Roemer and Gugerty, 1997 and World Bank, 2000). Thus, as Dollar and Kraay (2002) note, "(t)he combination of increases in growth and little systematic change in inequality in the globalizers has considerably boosted efforts to reduce poverty". In other words, the Kuznets Curve hypothesis (which purports the existence of a U-shaped nexus between income and inequality) does not appear to be empirically valid. Measures of income distribution have generally been stable over time within countries[14]; there appears to be as much tendency for income inequality to worsen slightly as there is for it to improve (Fields, 1989 and Deninger and Squire, 1997)[15]. Ghura et al. (2002) have recently estimated the elasticity of income on the poor with respect to average income and find that economic growth raises the incomes of the poor but by less than one-to-one. This said, the evidence is far from unequivocal (for instance, see Timmer, 1997), especially once country-specific circumstances are considered.

Table 1 offers an indication of patterns of income inequality changes in 73 countries between the 1960s and 1990s based on the World Income Inequality

[14] While the conventional Kuznets hypothesis linked inequality with income *levels*, there has more recently been an attempt to relate inequality with income *growth*. Neither the level nor the growth versions of Kuznets hypothesis seem to be empirically valid in general. Even if there were a link, the issue of causation would be relevant as high levels of inequality could well depress growth (Alesina and Perotti, 1996 and Morrissey et al., 2001).

[15] It is, of course, plausible that poverty may worsen even if some measures of income inequality do not change -- e.g. lower and upper middle income households improve significantly while the poorest households see a worsening of income.

Database (Cornia and Court, 2001)[16]. While outward oriented growth in a number of countries in Asia such as Malaysia and the Philippines appear to have been matched by decreasing inequality (though both remain relatively inequitable societies), others like China, Korea and Thailand have experienced a worsening of inequities.

3.2 Labour Market Rigidities: Particular Reference to India

While Table 1 suggests that inequality in India has remained unchanged between 1960s and 1990s, more recent evidence indicates that inequalities in the country have been rising since the initiation of the economic liberalization since mid 1991 (Ahluwalia, 2000, Deaton and Dreze, 2002 and Jha, 2002). While liberalization has been important in promoting mid-skill level software exports, the reforms in India do not appear to have generated significant employment in the export-oriented, labour intensive manufacturing industries. This compares unfavorably to the experiences of the East Asian economies in the 1980s and 1990s which have emerged as important global players in labour-intensive manufacturing (Rajan and Sen, 2001). Apparently they have not been able to "pull up" the poor from poverty (Jha, 2002). Thus, Deaton and Dreze conclude

> Most indicators have continued to improve in the nineties, but social progress has followed very diverse patterns, ranging from accelerated progress in some fields to slowdown and even regression in others. We find no support for sweeping claims that the nineties have been a period of "unprecedented improvement" or "widespread impoverishment" (p.3729).

However, contrary to Datt (1995) and a number of other critics, the reforms in India per se are not *ex-ante* biased towards the capital and skill-intensive sectors and thus "anti-poor". Rather, they have become so *ex-post* mainly because of draconian labour laws and resulting labour market distortions and rigidities. To emphasize this

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[16] The World Income Inequality Database (WIID) may be accessed from the UNU-WIDER website: http://www.wider.unu.edu/wiid/wiid.htm

point, we consider a simple framework on the effects of policies in India which may have served to bias production techniques against the use of labour in favor of capital. The analytics below are meant to be illustrative and hence kept trivially simple.

Consider two factors of production, labour (L) and capital (K). Return to L is the wage rate (w) and that to K is the rental (r). Let the original (full employment) amount of labour and capital in the economy be L_0 and K_0 respectively, with the undistorted relative wage-rental ratio at $(w/r)_0$. Assume government policies or segmented markets bias the relative factor prices, such that actual (distorted) price ratio $(w/r)_1$ exceeds the undistorted one, $(w/r)_0$. These policies include both those that "artificially" raise the return to labour (such as minimum wage laws, including the presence of a powerful trade union which demands inflated wages), as well as those that lower the returns to capital (such as physical capital subsidies). Assuming full employment of relative scarce resource, capital (K_0), referring to Figure 2, the effect of these distortionary policies is to lead to production of a lower level of output ($Y_1 < Y_0$), with labour unemployment of ($L_0 < L_1$). While an open door policy would be expected to raise the capital stock (FDI inflows) such that output levels rise above Y_0 (e.g. Y_2) the expansion may not be net employment generating.

From a policy angle, it is imperative that distortions that bias domestic relative factor prices against unskilled and semi-skilled labour inputs are eliminated. More flexible functioning of the labour market and greater emphasis on cordial tripartite relations between labour-management-government are needed if a country is to be competitive as a location for labour-intensive investments and the reforms are to be unskilled labour friendly and thus "pro-poor" over time. Given the acute difficulties that governments often face in curbing labour union "militancy" and labour market distortions at a national level, institutional innovations such as export platforms (see Section 2.2) which are generally free from such competitiveness-hindering constraints and high tariffs, gain greater relevance. Such platforms or "Special Economic Zones" (SEZs) have consequently been embraced with newfound enthusiasm by India (Kundra, 2001 and Naik, 2002)[17]

3.3 Agglomeration and Fragmentation in the Global Economy

a) Agglomeration

While the simple SS model (with incomplete specialization) is intuitively appealing, it is unable to capture an important dynamic of the global economy, viz. the tendency for agglomeration or the geographical concentration of industries in particular countries and particular regions within a country - "cores" (Anderson, 2003). This phenomenon of "firm-congestion" or bunching together spatially helps explain why regions with similar underlying characteristics sometimes turn out to be very different, i.e. "history matters for economic geography". The new economic geographers and old school development economists have stressed the existence of scale economies (or market size effects and linkages), thick labour markets and pure external economies as reasons for this cumulative causation and specific spatial configurations of production (Hanson, 2000 offers a recent literature review) - so-called "centripetal forces".

[17] Export platforms are not entirely new in India. The country has established a number of EPZs in the past, none of which have been very successful for reasons outlined previously. What then is the difference between SEZs and EPZs? According to Kundra (2001):

> While EPZs are industrial estates, SEZs are virtually industrial townships that provide supportive infrastructure such as housing, roads, ports and telecommunication. The scope of activities that can be undertaken in the SEZs is much wider and their linkages with the domestic economy are stronger. Resultantly they have a diversified industrial base. Their role is not transient like the EPZs, as they are intended to be instruments of regional development as well as export promotion. As such, SEZs can have tremendous impact on exports, inflow of foreign investment and employment generation.

India has, however, been far more successful in its Software Technology Parks (STPs) which are the IT analogue to EPZs.

The foregoing literature has largely been silent on the specifics of dispersion of economic activity. If anything, the dynamics described previously - whereby there will come a time when the centrifugal forces offset centripetal forces - suggests that the longer-run shift of production from the core to the peripheries will be a zero-sum game, with the latter gaining at the expense of the former (Hanson, 2000). To quote Krugman and Venables (1995):

> (B)oth concerns about uneven development and worries about maintaining First World living standards in the face of Third World competition have some justification. In particular, they seem to correspond to different stages in the process of globalisation....an early stage of growing world inequality...As transport costs continue to fall...there eventually comes a second stage of convergence in real incomes, in which the peripheral nations definitely gain and the core may well lose (p.859).

Given this perception, in the face of possible "hollowing out" or de-industrialization due to escalating costs and concomitant diminishing attractiveness, might there not be a plausible case for the erection/escalation tariffs and other trade barriers so as to decelerate the "centrifugal" forces (i.e. forces causing dispersion from the core)[18]. However, this policy conclusion runs against conventional wisdom regarding the benefits of free trade and the general presumption that factor intensities of goods and factor endowments of countries play a significant role in international trade.

b) *Fragmentation*

The implicit assumption in the agglomeration literature is the inability to unbundle products into its parts, components and accessories (PCAs). With major improvements in transportation, coordination and communication technologies, globalization provides vastly increased opportunities for the fragmentation of previously integrated goods and activities into their constituent PCAs. This in turn may be dispersed across countries on the basis of comparative advantage. International trade is in fact increasingly characterized by “intra-product specialization”, a term coined by Arndt (1996, 2001). He also uses the term “super-specialization” to describe this phenomenon[19].

In the first serious attempt at quantification of intra-product trade, Yeats (1997) estimates that close to 30 percent of world trade in manufactures in the 1990s (which totaled some US$2.7 trillion) has been of this variety. Such intra-product specialization has been facilitated greatly by - though is not necessarily dependent on - the expansion of the global operations of multinationals. The intricate division of labour in the electronics and auto industries developed by Japanese multinationals since the Plaza Accord of August 1985, and the consequent intensification of intra-regional trade in East Asia, are good instances of this form of trade[20]. The importance of intra-product specialization lies in the fact that globalization, by expanding opportunities for international specialization and trade, will be beneficial to all parties involved (i.e. the “cores” as well as the “peripheries”). Thus, in the longer-term, economic globalization and free trade will be an unambiguously positive-sum game[21]. The spread of industry to peripheries need not lead to deindustralization of the cores.

This agglomeration-cum-fragmentation literature does, however, reveal that a country in the “early” stages of integrating with the world could experience a worsening of inequalities. For instance, in the case of China, coastal provinces have attracted the

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[18] The aim here would be to diminish the feasibility of moving to the outlying regions and servicing the core through trade.

[19] Other descriptive terms sometimes used include “international product fragmentation” (Jones and Kierzkowski, 2000), “disintegration of production” (Feenstra, 1998), “Heckscher-Ohlin (HO)-plus-production fragmentation” (Knetter and Slaughter, 2000), “production-sharing” (Yeats, 1999), and “slicing the value chain” (Krugman, 1995).

[20] For recent statistics detailing the extent of such intra-regional production and trade in PCAs in manufacturing goods in East Asia, see Ng and Yeats (1999).

[21] Needless to say that this statement presupposes that the necessary institutional structures are in place to allow for a country to exploit the opportunities that are available in the global market place.

bulk of FDI inflows (Broadman and Sun, 1997 and Tseng and Zebregs, 2002). A broadly similar pattern is discernible in India (Ahulwalia, 2000, Datt and Ravallion, 2002, Jha, 2002 and Deaton and Dreze, 2002 and Sachs et al., 2002). While the existence of agglomeration effects can be expected to exacerbate regional disparities, as the literature further suggests, there ought to be a dispersal of various PCAs of the product across various regions over time. This said, as with the case of growth, it would be a mistake to attribute all or even most of the increase in inequities to openness to trade (Cornia and Court, 2001).

What does all this imply for policy? Given the dangers of growing inter-regional inequities (particularly if these inequities between regions coincide with differences in ethnic groups as in India), it has sometimes been suggested that there should be greater centralization of investment policies and/or direct targeting of federal transfers to the “backward” regions so as to facilitate balanced regional growth.

While there may be merit in such a policy recommendation, its potential benefits must be weighed against (a) the contemporary political realities which are moving in the direction of greater autonomy to individual states and providing “greater voice” to local communities; (b) “x-efficiency” gains by way of competition between states for resources; and (c) the demonstration effects of policies pursued in other jurisdictions that create greater demands and pressures by citizens for comparable levels of service. Arguably, a more sustainable way to attain some degree of balanced regional growth would be for the central government to facilitate the development of infrastructure along with other policies to encourage inflows of manufacturing industries into underdeveloped regions. This appears to be the direction the Chinese authorities have been moving in (Broadman and Sun, 1997), and is a policy that has been forcefully advocated for India (Ahluwalia, 2000).

4. Other Complementary Steps

The discussion of agglomeration-cum-fragmentation is admittedly more relevant to trade in manufactures (and services) than to agricultural goods and other primary commodities. However, as Martin (2001) has documented, many developing countries, including relatively poor ones in Southern Africa have seen a significant increase in the share of manufactures in their exports. As he notes:

> This change has profound implications. Not only does it greatly diminish concerns about potential declines in the terms of trade, but it also puts much greater pressure on domestic policy makers to maintain a relatively open regime that will allow imports of intermediate and capital goods, and support production of manufactured goods for exports (p.27).

Similarly, Radelet (1999) concludes:

> During the last thirty years, success in manufactured exports has been nearly synonymous with rapid economic development. With only a few exceptions, the countries that have achieved the most rapid gains in income per capita have also recorded the fastest growth in manufactured exports...There is widespread consensus that manufactured exports accelerate economic growth and technological progress by fostering closer connections with international firms using leading-edge technologies, encouraging economic specialization, promoting high rates of investment into profitable economic activities, and providing foreign exchange to finance imports of capital goods which cannot be produced locally.

4.1 Rural Sector and Agriculture

The preceding notwithstanding, a large proportion of the populace in developing countries is still closely tied to the rural sector and in agriculture, and this is where the bulk of the poverty is concentrated. Accordingly, this sector cannot be ignored if significant inroads are to be made in reducing poverty and raising living standards in developing countries[22]. Ravallion and Datt (1996) have found that direct targeting of rural

[22] This agriculture versus industry debate is, of course, an age-old one.

poverty in India will generate benefits to the urban poor, though not vice versa (this could be because of the capital intensive bias of the urban sector noted in Section 3.2, thus its expansion in the presence of existing distortions provides little benefits by way of low-skilled employment growth). The authors further suggest that growth in the rural sector has an equalizing income effect in the urban sector, while expansion of the urban sector actually exacerbates overall income inequalities (also see Datt and Ravallion, 2002).

In view of this, steps are needed to improve the productivity of the rural sector. Specific actions are needed to ameliorate basic infrastructural services such as roads, irrigation, power and basic public health measures (sanitation and sewerage, supply of clean drinking water, etc). Virmani (2002) makes a particularly strong case for such rural infrastructure to be classified as "public goods" and ought therefore to be provided by the government (Annex 4)[23].

In addition, various regulations, which hinder productivity improvements such as price controls, licensing requirements and trade restrictions must be revoked. Innovative methods of providing rural credit finance (micro finance) are also of importance. It is instructive to note that the pro-poor effects of East Asian growth pre-1997 were due to an astute combination of outward orientation along with complementary policies in agriculture (including land reforms) and widespread basic education (Birdsall, et al., 1995)[24]. Indeed, Cornia and Court (2001) refer to land concentration, urban bias and inequality in education as "traditional causes" of inequality.

[23] However, in reality many public goods in developing countries tend to be fairly "costly" to the end user (i.e. rural poor) either because the poor are not able to access the services easily (due to lack of geographical proximity) or because middle-men/service providers attempt to extract informal payments to provide the service.

[24] While stressing the importance of land reforms, Cornia and Court (2001) note:

> Many land reform efforts in the past have been badly planned and implemented without paying much attention to the incentives of all actors involved and to the functioning of the input and credit markets (p.27).

There is a complex nexus between illiteracy, openness and agriculture[25]. Specifically, while the simple two factor SS model non-agricultural commodities may well benefit low skill urban labour, it may do little to benefit the "completely" unskilled labour and thus the most poor in society in the rural areas. While this further suggests the need to improve basic literacy rates in the rural areas and to facilitate the extent of inter-regional labour mobility (Sachs et al., 2002)[26], the importance of working towards liberalizing trade in agriculture is critical.

In relation to this, industrial country protectionism and market access impediments in the agriculture sector are extremely harmful to developing countries. The World Bank President James Wolfensohn (2000) is exactly correct when he notes the following of industrial countries and leaders:

> If we care about the poorest developing countries, a special focus is needed on agricultural trade liberalization. They depend far more heavily than the better-off developing countries on agriculture for their GDP and exports….It makes no sense to exhort poor countries to compete and pay their way in the world while we simultaneously deny them the means to do so, by restricting their market access in areas such as agriculture where they have a comparative advantage..We must work flexibly and creatively towards a world trading system that really makes a difference for developing countries..In order to have a balanced and inclusive world trade system, we need to pay special attention to developing countries' current problems with the design and implementation of the rules of the game in international trade.

4.2 "Super Pro-poor" Policies, Social Safety Nets and Budgetary Costs

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Banerjee (1999) offers a timely reminder that such redistribution policies cost money and expend valuable administrative and political capital. The budgetary cost of programs is discussed in Section 4.2.

[25] An "adequate" level of education of the populace and "reasonable" infrastructure are also required if a country is to fully benefit from FDI (Borenzstein et al., 1998).

[26] Steps to improve rural infrastructure and productivity of rural workers benefits not just agriculture production but could also make the rural areas more appealing for low-skill intensive manufacturing and related services.

While there is no unambiguous recipe for translating growth into poverty reduction, a recent empirical study of Ghura et al. (2002) reveals the existence of a number of - what they refer to as - “super pro-poor” policies. As they note:

> certain policies can have direct impact on the income of the poor, even after controlling for the effect of economic growth..These..policies..are considered “super-pro-poor” in the sense that they raise the income of the poor directly, as well as through the economic growth channel. The direct and indirect effects are mutually reinforcing. (p.3).

These pro-poor policies include lower inflation, smaller government (measured by government consumption), financial development and higher levels of schooling. Dollar and Kraay (2000a) Easterly and Fischer (2000) and Romer and Romer (2000) confirm the importance of low inflation in keeping poverty rates down. The policy implications of these findings are obvious. Interestingly, beyond these policy variables, the authors find that a number of other factors that may be growth-inducing, including trade openness (share of exports plus imports to GDP), investment and such, do not have any separate impact on poverty beyond their effects on economic growth.

More open economies are invariably more susceptible to external shocks and disturbances. Indeed, Ghura et al. (2002) find that the poor are particularly susceptible to adverse movements in the price of tradables. Thus, while openness and complementary policies could reduce absolute poverty, they may increase the probability of a household falling into poverty in the event of a sharp adverse shock (also see Stiglitz, 1998). In order to counter this possibility, at least two sets of government policies need to be in place.

First, in a dynamic environment, policies must be focused on continued basic re-training and re-tooling of individuals so that they are be able to adapt to shifting comparative advantage. Policies in the short and medium terms should also focus on facilitating inter-sectoral mobility of labour and capital so as to ensure resources can be shifted frictionlessly in response to changing demand conditions.

Second, there is a need to establish adequate social safety nets to protect the least well off and mechanisms to compensate "losers" (Ravallion, 1999, 2002). As Baldacci et al. (2002) notes of such safety nets:

> The aim should be to have safety nets as permanent institutions to be deployed as needed. Medium-term planning is crucial in this respect, Setting up safety nets takes time and requires the ability of the government to react as short notice. Social safety nets should be flexible so that they can be adjusted to changes in the size and the characteristics of the poor when the economy is hit by a shock…The design of a safety net should take account of the poverty risks of different population groups, with effective targeting to the most vulnerable groups. As the poorest of the poor are often engaged in informal-sector activities, policies targeted at this group should be designed differently from those programs aimed at helping the vulnerable groups of workers in the formal sector (p.37).

Needless to say, while the need for well-designed social safety nets to mitigate the possible harmful effects - at least in the "short-term" - on the poor is particularly relevant, it is important to ensure that these social policies do not hinder or delay the process of reforms. They are meant to supplement and not supplant growth-oriented structural reforms. It is also important that the budgetary costs of these programs be quantified and well targeted (as there is always the danger that these programs are captured by vested interests).

The issue of budgetary costs and need for prioritization of policies is not only relevant to social programs. For instance, Finger and Schuler (2001) recognize that trade liberalization is no longer just an issue of reducing trade barriers. The comprehensiveness of the WTO regime requires significant strengthening of institutional and administrative capacities in developing countries and can be extremely costly to implement. The authors estimate that it costs a typical developing country US$ 150 million to enforce behind the border requirements like customs valuation, sanitary and photosanitary measures (SPS) and intellectual property rights (TRIPS). This amount exceeds the typical budgets of most many poor countries.

The budgetary impact of trade liberalization in terms of tariff reductions must also be kept in mind. Lower trade tax revenue could lead to one of three outcomes: (a) worsening of the budget deficit (with consequent macroeconomic consequences); (b) raising of other taxes with consequent distortionary effects; or (c) reductions in government expenditures which tend often to impinge heavily on the poor[27]. Rodrik (2000a) goes so far as to suggest that these fiscal costs of deeper integration may not be worthwhile in view of the development alternatives that exist (such as improved education for girls, improvements in basic infrastructure, overcoming other institutional deficiencies and investments in health and nutrition).

5. Conclusion

It goes without saying that the permanent eradication of poverty ought to be a country's and indeed the international community's overarching objective. The issue of poverty is multidimensional and exceedingly complex. To understand its causes, it is essential to study the underlying economic and social circumstances and processes (World Bank, 2000)[28]. This paper has made no attempt to provide a detailed discussion of the causes and consequences of poverty. Rather, the aim of this paper has been much more modest, viz. to discuss some of the links between trade and poverty at a

[27] Of course, none of these policy choices need occur if the trade taxes were prohibitive or the supply response following tariff reductions are "very significant", such that tariff liberalization actually increases revenues. In addition, as is often noted, simplifying the tariff regime as part of an overall process of creating a more uniform and transparent structure may not lead to a decline in fiscal revenue, and will certainly simplify tax administration. See Mackenzie and Orsmond (1996) for a discussion of issues relating to the quality of fiscal adjustment and its impact on growth.

rather broad level, as well as to suggest ways of ensuring that trade liberalization benefits the poor.

One thing is clear. Trade and openness remain engines of growth and important instruments of development. Inward looking, statist development strategies are *not* a sensible policy options. It is a fact that countries that have experienced rapid growth and have managed to make significant inroads into alleviating poverty have been those that have integrated with the global economy in a market-consistent manner. However, the weight of evidence suggests that it would be simple-minded to think that trade liberalization per se is able to generate trade and income growth on a sustained basis, let alone alleviate poverty. Trade liberalization must be accompanied by a milieu of other policies to ensure that a country is successful in integrating more intensively with the world in a manner that is favorable to growth and poverty reduction. These include - but by no means are limited to - sound macroeconomic policies, strong institutions, and a favorable investment climate including removing regulations that restrict the degree of flexibility of domestic labour market operation (which in turn may prevents the realization of gains from comparative advantage), and such.

Given the importance of income distribution and the volatility impact of trade liberalization on the poor in *the short-run*, a number of policies are needed to assure benefits for the poor in liberalizing developing economies.

Winters (2001) offers a useful checklist to help policy makers appraise the impact of trade reforms on poverty.

- Will the effects of changed border prices be passed through to the rest of the economy?
- Is reform likely to destroy effective markets or create them and allow poor consumers to obtain new goods?

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[28] Cassen (2002) notes that income - or lack of it - is just one aspect of poverty. He examines a broad range of indicators to obtain a clearer understanding about how "well-being" of the poor in India has changed in the 1990s.

- Is it likely to affect different household members differently?
- Will its spillovers be concentrated on areas/activities of relevance to the poor?
- What factors are used intensively in the most affected sectors? What will be the mix of wage and employment effects? Will wages exceed poverty levels?
- Will the reform actually affect government revenue strongly?
- Will it lead to discontinuous switches in activities? If so, will the new activities be riskier than the old ones? growth it stimulates be particularly un-equalizing?
- Will the reform imply major shocks for particular localities?
- Will transitional unemployment be concentrated on the poor?

This apart, one area where trade liberalization is obviously beneficial is in services. Infrastructural services such as transportation, insurance, and finance are vital in facilitating the production process and bringing manufactured and agricultural goods to the market (Rajan, 2002b). Other types of services are directly embodied in goods (e.g. design, software, repair work and other technical expertise). Thus, restrictions on the movement of service providers across borders create additional costs and barriers to non-service trade. Moreover, the fragmentation of the production of goods noted previously is highly service-dependent and is therefore facilitated by liberalization of service transactions (Deardorff, 2001). The World Bank (2002a) has in fact proclaimed that "(i)n virtually every country, the performance of the service sectors can make the difference between rapid and sluggish growth" (p.69).

A number of developing countries have a comparative advantage and niche export opportunities in certain service activities, particularly professional and business ones (such as computer and office services), tourism, health, construction and transport. This would imply that they have a substantial stake in an orderly liberalization of global service markets. Further welfare gains could accrue to consumers from the availability of broader product variety of specialized producer services as well as enhanced product quality (World Bank, 2002a)[29].

It is, however, important to keep in mind that the benefits from services liberalization are far from automatic. If deregulation and internationalization in services takes place prematurely, i.e. in a weak or ineffective regulatory and supervisory environment, there may be severe negative consequences (Rajan, 2002b). As is increasingly recognized, the issue is not one of *whether* to open up and integrate with the global economy in a market-consistent manner, but *when and how* to do so. Nowhere is this more pertinent than for the service sector[30].

In the final analysis, if the "war on poverty" is to be won, trade liberalization along with disciplined macroeconomic policies must be matched by much more targeted steps such as progressive pro-poor expenditure, ensuring universal literacy and the empowering women[31].

[29] The issue of industrial country protectionism or lack of market access is once again very pertinent here - poor countries stand to gain the most if the key area of the "movement of natural persons" is liberalized. We do not pursue this issue further here given our distinction in the Introduction between globalization of trade and globalization of labour flows.

[30] This said, what is meant by "effective regulation" will vary based on the sector under consideration. For instance, effective regulation in the case of the telecommunications sector refers to pro-competitive regulation, while in the financial service sector it refers to prudential regulation (Mattoo et al., 2001 and Rajan, 2002b).

[31] Empowerment, according to the World Bank, has a very specific meaning encompassing four key elements: (a) access to information; (b) inclusion and participation; (c) accountability; and (d) local organizational capacity (see www.worldbank.org/poverty/empowerment/).

Annex 1
Financial Crises, Poverty and Income Distribution

The main channels through which financial crises affect poverty and income distribution are:

- **A slowdown in economic activity:** A financial crisis may lead to a fall in earnings of both formal and informal-sector workers due t job losses in the formal sector and reduced demand for services in the informal sector. Reduced working hours and real wage cuts also adversely affect the earnings of the poor. Entry of unemployed formal-sector workers into the informal sector puts additional pressure on the informal labour market

- **Relative price changes.** After a currency depreciation, the price of tradables rises relative to nontradables, leading to a fall in earnings of those employed in the nontrade sector. At the same time, there may be an increase in the demand for exports, and consequently, employment and earnings in the sectors producing exportables increase, thereby offsetting some of the losses due to the decline in GDP. The exchange rate change may affect the price of important food, increasing domestic food prices; this increase in turn hurts poor individuals and households that are net consumers of food.

- **Fiscal retrenchment.** Spending cuts affect the volume of publicly provided critical social services, including social assistance outlays, and limit the access of the poor to these services at a time when their incomes are declining.

- **Changes in assets.** Wealth effects or changes in the value of assets have a significant impact on income distribution. Changes in interest rates, as well as in asset and real estate prices, affect the wealth of the better off.

Source: Reproduced from Baldacci et al. (2002)

Annex 2
Why the SS Theorem may be Limited Help for Analyzing Poverty

The functional distribution of income is not the same as the personal distribution of income. The income of a given household is only indirectly linked to the returns to various factors of production. It depends on their ownership of the various factors, which is usually very difficult to ascertain empirically.

Dimensionality. The very powerful SS result holds only in a model with 2 factors and 2 goods. Once we move beyond this the results are much weaker. In an *n x n* model each factor has an "enemy" - a good whose price increases definitely hurt the factor - but not necessarily a 'friend'. In non-square models, with different numbers of factors and goods, unambiguous results are even scarcer.

Mobility of labour. Independently of the number of different classes of labour distinguished, each is required to be perfectly mobile between all sectors and regions of the economy - i.e. there are perfect labour markets at the national level. If this is violated - i.e. labour markets are segmented -similar labourers in different markets must be treated as being different factors, and will fare differently from each other.

Diversified equilibrium. To be sure of SS effects, the country must be producing all goods, both before and after the price change in question. If we distinguish many different goods at different levels of sophistication, this is unlikely. If countries do not produce all goods, the basic mechanism can break down and perverse results are possible.

Differentiated goods. SS is based on a model in which goods are homogeneous across foreign and domestic suppliers. Many argue that goods are better thought of as differentiated, in which case the critical issue is how closely domestic varieties are substitutable for the foreign varieties whose prices have changed. If the answer is 'rather little', the prices of domestic varieties will be only slightly affected by trade shocks but there will be little quantity response to the price increase for the imported variety, so the terms of trade losses from the price increase will be correspondingly unmitigated.

Constant returns to scale and smooth substitution between factors. If industries are subject to economies of scale, their responses to price shocks will tend to be larger than a CRS approach suggests. Also, under such circumstances it is possible for all factors to gain or lose together, which weakens the inter-factor rivalry aspect of SS. Similarly, if technology is endogenous or if labour can be substituted for other factors only in discreet steps, there may be discontinuities in the way factor prices respond to shocks.

Perfectly competitive goods and factor markets. These are required for the direct and simple transmission of goods price shocks into factor price effects. Once there are economic rents in the system, transmission becomes more complex and difficult to predict.

Non-traded goods. If some goods are non-traded, their prices are no longer determined by world prices plus tariffs, but by the need to clear the domestic market. They will accommodate shocks through both price and quantity responses, rather than just the latter as for traded goods in a small country. This will tend to attenuate the rate at which tradable goods price shocks are translated into changes in the relative demands for different factors.

Reference set of relative factor abundance: Davis (1996) shows that countries that may be labour-abundant in a global sense may yet experience a worsening of income if it is capital-abundant in a regional or local sense.

Source: Adoption and extension of Winters (2001)

Annex 3
A Note on the Functional Income Distribution of Trade Liberalization Over Time

Consider the simplest case of 2 factors (Labour and Capital) and 2 industries (“Export industry” and “Import industry”). Assume the country in question has a comparative advantage in labour and the Export Industry is labour intensive.

In the *short-run*, assume all factors are immobile. Free trade leads to a rise (fall) in the price of the labour intensive Export (Import) industry. Thus, real returns to labour and capital in the Export industry rises and falls in the case of the Import industry. Real returns to labour and capital in the Export industry rises and falls in the case of Import industry.

In the *medium-run*, assume labour is mobile across sectors but capital remains immobile. Labour moves from the Import to the Export industry such that wages are equalized across sectors. Whether they benefit depends on their consumption basket as is therefore ambiguous. Capital in the Export industry unambiguously benefits and that in the Import industry unambiguously worsens.

In the *long-run*, real wages rise and real returns on capital declines *a la* Stolper-Sameulson (see below).

Table A-3

Short-run (Immobile Factors)

	Export Industry	**Import Industry**
Workers	Gain	Lose
Capitalists	Gain	Lose

Medium-run (Only Capital Immobile)

	Export Industry	**Import Industry**
Workers	?	?
Capitalists	Gain	Lose

Long-run (all Factors Mobile)

	Export Industry	**Import Industry**
Workers	Gain	Gain
Capitalists	Lose	Lose

Annex 4
Key Policy Components Needed to Reduce Rural Poverty

Information gathering. The rural poor face many different problems and are not a homogeneous group. Therefore, a sustained effort must be made to gather information about the particular problems they face so that they can be adequately addressed.
Focus on building assets. The government should assess what assets the poor need most to help them earn more. This could be agricultural land or other resources, access to credit, or improvements in health and education. Dependence on raw labour, without a focus on building other assets, is the single most important source of persistent poverty.
The right to adequate land and water. A broad-based land reform program—including land titling, land redistribution, and fair and enforceable tenancy contracts—is critical for reducing rural poverty. It can make small (marginal) landowners and tenants more efficient producers and raise their standards of living.
Basic health care and literacy. The rural poor need to build and strengthen their human capital so they can get out of poverty and contribute more to the economy and society. Basic health care (immunization, provision of clean water, and family planning) and education (literacy, schooling, and technical training)—particularly for women and children—are essential building blocks and should be accessible at reasonable cost.
Local involvement. The infrastructure and services associated with health and education can be funded and maintained best if the target groups are involved in making decisions about the design, implementation, monitoring, and accountability.
Providing infrastructure. The rural poor cannot make the best use of their resources, including human capital, if either the quantity or the quality of some of the key parts of the country's physical infrastructure (irrigation, transport, and communications) and support services (research and extension) is inadequate. The social and physical infrastructure and services can be funded and maintained best—that is, they will be cost-effective and of reasonable quality—if the target groups are involved in designing, implementing, and monitoring them, as well as in ensuring accountability of the government officials responsible for them.
Targeted credit. Informal and formal sources of credit often are too costly for, or unavailable to, the rural poor. Targeted public sector rural credit programs, especially if they are subsidized, benefit the nonpoor far more than the poor. The poor want credit that is available on acceptable terms and when they need it. Recent experiments with community-based credit programs, in which the poor actively participate in the making of lending decisions that are subject to peer accountability, have been successful in reaching target groups at reasonable cost.
Public works. A large and increasing proportion of the rural poor depends on wage labour, because they have either no asset other than raw labour or very few assets: limited quantities of land and domestic animals. A flexible public works program can greatly help the near landless and the landless smooth out household consumption and avoid transient poverty. If it is used on a sustained basis, it can also strengthen the bargaining power of the poor in rural areas.

Source: Reproduced from Khan (2001)

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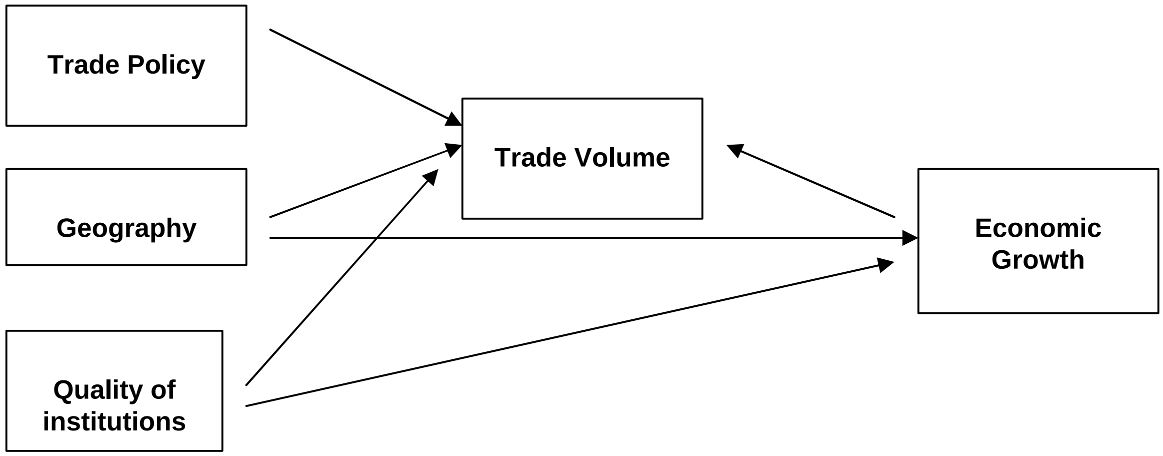
Table 1
Income Inequality Changes in 73 Countries from 1960s to 1990s

Inequality	Developed countries	Developing countries	Transitional Countries	Total
Rising	12: Australia, Canada, Denmark, Finland, Italy, Japan, Netherlands, New Zealand, Spain, Sweden, UK, USA	15: Argentina, Chile, China, Columbia, Costa Rica, Guatemala, Hong Kong, Mexico, Pakistan, Panama, South Africa, Sri Lanka, Taiwan, Thailand, Venezuela	21: Armenia, Azerbaijan, Bulgaria, Croatia, Czech Rep. Estonia, Georgia Hungary, Kazakhstan, Kyrgyztan, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Ukraine, Yugoslavia	48
Constant	3: Austria, Belgium, Germany	12:Bangladesh Brazil, Cote d'Ivoire Dominican Rep, El Salvador, India, Indonesia, Puerto Rico, Senegal Singapore, Tanzania, Turkey	1. Belarus	16
Declining	2. France, Norway	7: Bahamas, Honduras, Jamaica, South Korea, Malaysia, Philippines, Tunisia	0	9
All	**17**	**34**	**22**	**73**

Source: Reproduced from Cornia and Court (2001)

Figure 1



Source: Reproduced from Rodrik (2000b)

Figure 2