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The Impact of Globalization on the World's Poor:

Transmission Mechanisms

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Paper prepared for the WIDER Jubilee Conference in Helsinki, June 17-8, 2005. In 2004 UNU/WIDER initiated a new project on "The Impact of Globalisation on the World's Poor." The present paper summarises the findings of the authors who contributed to the first conceptual conference held in Helsinki, October 2004. The first of three regional conferences on "The impact of globalisation on the poor in Asia" was held on April 25-6, 2005 in Tokyo while the next two regional meetings are to be held in Africa and Latin America, respectively, over the course of next year.

1. Introduction

Over the recent decades, the world economy has experienced not only a quantitative leap in the volume and value of international trade and financial transactions, but a qualitative transformation in the way residents of different nation-states interact with each other. National economies are increasingly linked through international markets for products and factor markets, leading to increased cross-border flows of goods, capital, labour, and through flows of information, technology and management know-how. The world economy is becoming increasingly integrated.

This process of globalisation is one of the most critical developments affecting the evolution of national economies. Globalization offers participating countries new opportunities for accelerating growth and development but, at the same time, it also poses challenges to, and imposes constraints on policy makers in the management of national, regional and global economic systems. While the opportunities offered by globalization can be large, a question is often raised as to whether the actual distribution of gains is fair, in particular, whether the poor benefit less than proportionately from globalization – and could under some circumstances actually be hurt by it.

The risks and costs brought about by globalisation can be significant for fragile developing economies and the world's poor. The downside of globalisation is most vividly epitomised at times of periodical global financial and economic crises. The costs of the repeated crises associated with economic and financial globalisation appear to have been borne overwhelmingly by the developing world, and often disproportionately so by the poor who are the most vulnerable. On the other hand, benefits from globalisation in booming times are not necessarily shared widely and equally in the global community.

The fear that the poor have been by-passed or actually hurt by globalisation was highlighted by the finding from a number of studies, emerging recently, which explicitly examined the extent of, and changes in inequality of the world income distribution as it evolved during the heyday of the globalisation era[1]. Many of these studies point towards a continuing high inequality in the world income distribution and limited- if not a lack of - convergence among participating national economies and across regions as globalisation has proceeded. Poverty, as measured by the headcount ratio has fallen world-wide except in Sub Saharan Africa where it continues to rise.

Though any trend in poverty and income inequality observed so far cannot be exclusively or even mainly attributed to the `globalisation' effect, as such, without rigorous analyses, these various estimates, even the most optimistic ones, can not dismiss the concerns raised that the globalisation process, as it has proceeded so far, may have had at least some adverse effects on poverty and income distribution[2]. These concerns have generated a passionate debate worldwide as well as a powerful anti-globalisation movement.

The extent of controversy surrounding this debate reflects the fact that globalisation is not a process proceeding neutrally in a policy vacuum, but a policy induced condition[3]. Globalisation is not purely driven by new technological innovations and progress or by `neutral' market forces and other inescapable socio-political forces, as often depicted in popular writings[4]. In particular, the contemporary phase of globalisation is to a certain extent an outcome emerging from the global consolidation and diffusion of the economic policy paradigm, which emphasises benefits and positive features of the liberalised policy regime. In this paradigm, trade and financial liberalisation is seen, along other market-based institutional reforms such as privatisation, legal and other regulatory systems, as the *sine qua non* of a successful integration into a globalising world economy. This kind of position with a particular ideological stance

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[1] See Nissanke and Thorbecke (2005) for a review of literature and more detailed discussion on the concepts used for analysing the trends in world inequality and empirical evidence.

[2] See also Culpeper (2002) for a recent critical literature review of the effect of globalisation on inequality, where a set of triangular relationships between globalisation, growth and inequality is systematically discussed.

[3] See Kozul-Wright and Rayment (2004) for an extensive discussion on this policy induced condition.

[4] Helleiner (2001) emphasises the need to distinguish two different phenomena associated with the term "globalisation". Whilst the first is referred to as the shrinkage in space and in time that the world has experienced as a consequence of technological revolutions in transport, communications and information processing, the second usage points to policy choices and external liberalisation involving political, economic and social choices. As he notes, despite this clear distinction, the recent association of external liberalisation *policies* with the technology-driven *fact* of globalisation has contributed to the terminological confusion.

might be questioned in the context of the fiercely contested debate on the appropriate roles of Markets vs States. Indeed, in this regard, the recent discussion over the effects of globalisation on poverty mirrors very much the earlier controversy over the appropriateness of Structural Adjustment Programmes as a development strategy for low-income countries and the poor in particular.

Cornia (2000) argues, for example, that growing polarisation among countries has been accompanied by a surge in inequality within most nations, where growth and poverty alleviation have suffered substantially. He suggests that the rising trend in inequality within countries in recent decades cannot be explained by the `traditional causes of inequality' (i.e. those responsible for income inequality in the 1950s-1970s), which include high concentration of land and other assets, dominance of natural resources and associated rents, unequal access to education, and urban bias.

While noting that these traditional conditions remain important factors for cross-country differences in inequality, Cornia argues that the increased global inequality in recent decades is more directly attributable to the contemporary `globalisation' effects, i.e. the nature of technological changes and policy reform measures such as: frequent application of deflation policy under stabilisation-cum-adjustment; trade liberalisation; the rise of financial rents following financial liberalisation and privatisation; changes in labour institutions; and erosion of the re-distributive role of the State[5].

However, despite the utmost importance of understanding the globalisation-poverty nexus, the precise nature of the various mechanisms, whereby the on-going process of globalisation has altered the pattern of income distribution and the conditions facing the world's poor is yet to be carefully analysed. This is because the globalisation-poverty relationship is complex and heterogeneous, involving multifaceted channels. It is highly probable that globalisation-poverty relationships may be non-linear in many aspects, involving several thresholds effects.

While a number of studies have been conducted to investigate the globalization-poverty relationships through cross-country regressions, a deeper insight into this critical nexus cannot be obtained by regression studies alone, as it requires detailed empirical research in a country- and region-specific context[6]. Cross-country studies require precise measurements and definition of the two key concepts- globalisation and poverty - and have been criticised on technical (econometric) grounds. Both concepts are multi-dimensional, and not easily captured in a composite index to be used in a meaningful manner in cross-country, comparative studies.

Building on earlier research projects, UNU-WIDER initiated a project on 'The Impact of Globalization on the World's Poor' in 2004. The project aims at producing a set of rigorous theoretical and empirical economic analyses, which could allow us: (i) to deepen our understanding into how conditions facing the world's poor have been

[5] See Culpeper (2002) for further discussion of the effect of economic liberalization policies on income distribution and the poor.

[6] See Reimer (2002) for a literature survey of the poverty impacts of trade liberalization in developing countries. In his survey, he classifies empirical studies into four methodological categories: cross-country regression, partial-equilibrium/cost of living analysis, general equilibrium simulation and micro-macro synthesis.

evolving under globalization; and (ii) provide a framework yielding the elements of a strategy for 'pro-poor globalization'.

This paper presents a summary of main findings from the papers presented at the first Project meeting in Helsinki, October 2004. This meeting focused on conceptual and methodological issues with a view of discerning channels and transmission mechanisms through which the process of globalization affects different aspects and dimensions of poverty in the developing world. The paper examines how these numerous channels interact and the net effects on poverty depend on the relative strength of the positive and negative forces of globalization.

In the companion paper (Nissanke and Thorbecke 2005), these transmission mechanisms are identified and explored. The first and most important of these mechanisms is the growth inequality-poverty channel. Other channels in the globalisation-poverty nexus, operate, respectively, through changes in relative factor and goods' prices, factor movements, the nature of technological change and diffusion, the impact of globalisation on volatility and vulnerability, the world-wide flow of information, global disinflation, and institutions.

Following broadly this approach, the paper is structured as follows: In Section II, we discuss various relationships embedded in the openness-growth-inequality-poverty nexus. In Section III, the paper analyses how globalisation affects poverty through the various other channels listed above, including institutions, technology and vulnerability. In the concluding section (Section IV), some preliminary thoughts are presented aimed at formulating a set of measures to make globalisation pro-poor.

II. The Openness-Growth-Inequality-Poverty Nexus and Channel

In what follows we summarise the views of the WIDER Helsinki conference author regarding the physiology of the causal chain openness-growth-inequality-poverty.

Nissanke and Thorbecke (2005) examine the "growth" channel by scrutinising the causal chain *openness-growth-inequality-poverty* link by link. Openness through trade and financial liberalization increases the flow of goods and capital across national borders *and can* contribute significantly to economic growth (the openness-growth link). However, the direction of causality in this link is still being debated as well as how trade and capital flows may be interlinked into a virtuous circle. Furthermore, the positive openness-growth link is neither automatically guaranteed nor universally observable.

While it is most likely that the poor will benefit from growth, the ultimate poverty-reduction effects will depend on how the growth pattern affects income distribution. Inequality is the filter between growth and poverty reduction. If growth leads to an increase in income inequality the poor may benefit only slightly or, in some instances, actually be hurt by the globalization process. Indeed, the growth-inequality link is much more complicated than what the classical approach postulated with its emphasis on the growth-enhancing effects of inequality. There are many consequences of and phenomena linked to inequality that, at least potentially, could reduce future growth and hence future poverty alleviation such as the diffusion of social and political

instability which could have a negative impact on investment caused by greater uncertainty.

The *pattern* of economic growth and development, rather than the rate of growth *per se*, may have significant effects on a country's income distribution and poverty profile. Indeed, the recent debate on the meaning of *pro-poor growth* is related to the complex triangular relationships among poverty, growth and inequality. Clearly, poverty reduction would require some combination of higher growth and a more pro-poor distribution of the gains from growth. Hence what is relevant for poverty reduction is a 'distribution-corrected' rate of growth, as Ravallion notes (2004b), and in our view, growth is considered pro-poor if in addition to reducing poverty, it also decreases inequality.

Heshmati (2005) takes a rather different, aggregate approach to assessing the impact of globalisation on poverty. He first computes two composite indices of globalisation; the Keary index and his own index obtained from principal component analysis to measure the extent of globalisation for 62 countries. In order to investigate the very diverse aspects of globalisation, the indices are made up of four components: economic integration, personal contact, technology and political engagement, each generated from a number of indicators. These indices are developed to indicate the level of globalisation and show how globalisation has evolved over time in different countries. He suggests that a breakdown of the globalisation index into major components provides possibilities to identify the sources of globalization at the country level and associate it with economic policy measures. The indices are also used in a regression analysis to study the causal relationships between income inequality, poverty and globalization.

Heshmati finds a weak and negative correlation between globalisation and income inequality and poverty, as very little of the variance in inequality and poverty outcomes can be explained by globalisation operating through these four channels. Rather his results show that the regional variable plays an important role in the explanation of a variation in inequality and poverty, which makes the globalisation coefficient insignificant. This suggests that regional characteristics play a dominant role in how poverty and inequality are affected by the four globalisation components. His results generally confirm that initial endowments and the degree and nature of integration into the international economy largely determine the distributional effects of globalisation.

The importance of regional variations in understanding the globalisation-inequality-poverty nexus is further taken up by **Kalwij and Verschoor** (2005). They examine the impact of globalization on poverty, focusing on the responsiveness of poverty to aggregate changes in income distribution. For this purpose, they decompose poverty trends into an income effect and an a distribution effect over the period 1980-98, under the assumption of a log-normal income distribution for six major developing regions: East Asia, Eastern Europe and Central Asia, Central and Latin America, Middle East and North Africa, South Asia, and Sub-Saharan Africa. Their estimates of income and inequality elasticities of poverty vary considerably across regions. For example, for 1990 they find an income elasticity of poverty equal to –1.06, on average, for six regions, but ranging from –0.47 for South Asia to –4.21 for Eastern Europe

and Central Asia[7]. Similarly, their Gini elasticity of poverty amounts to 0.21, on average, but ranges from –0.06 in South Asia to 2.94 in Eastern Europe and Central Asia.

Referring to their calculated region specific elasticities, they suggest that income changes account for most of the variation in poverty trends across regions and over time and that the impact of changes in inequality is relatively small, except in Eastern Europe and Central Asia. The impact of changes in the income and inequality elasticities of poverty over time is also relatively small, again except in Eastern Europe and Central Asia. On the basis of region- specific analysis, they challenge the dominant mainstream view that globalization is good for the poor by generating approximately distribution-neutral income growth, as argued by Collier and Dollar (2001*).* They reaffirm instead the position emphasized by Ravallion (1997) and Bourguignon (2003) that inequality, in particular the initial income distribution, has an important indirect effect on poverty through diminishing prospects for pro-poor growth.

Ravallion (2005) examines more specifically the relationship between trade openness and poverty, using three different lenses and techniques: 1) a macro aggregate cross-country regression of the impact of trade on poverty; 2) a macro time series analysis of China; and 3) a micro lense based on a Computable General Equilibrium model scrutinizing, respectively, the impacts on households of WTO accession in China and cereal de-protection in Morocco. Both the macro and micro approaches cast doubt on some widely heard generalisations from both sides of the globalization debate. In particular, he points to the inadequacy of the conventional "macro lens" for revealing strong and robust trade-poverty relationship. Ravallion also shows that the link between trade liberalization and poverty is tenuous and that it is difficult to ascertain that trade openness is a powerful force for poverty reduction in developing countries. However, the tenuous nature of the trade-poverty relationship cannot necessarily be generalized to all cases. The data presented are more suggestive of diverse (and noisy) impacts of trade openness on poverty. Under a set of specific conditions trade opening could clearly be very effective in alleviating poverty.

A valuable lesson from Ravallion's paper is the crucial importance of the pattern of growth (the sectoral composition of growth) on the extent of poverty reduction. At early development stages the growth of the primary (agricultural) sector has a far greater impact on poverty than either the growth of the secondary or tertiary sectors. For example, he shows that the bulk of the poverty reduction in China occurred during the phase of agricultural de-collectivization and increases in food prices procurement rather than in the subsequent trade-opening phase. His micro studies also indicate considerable heterogeneity in the welfare impacts of trade openness, with both gainers and losers among the poor. A number of covariates of the individual gains are identified. His results point to the importance of combining trade reforms with well-designed social protection policies.

Bardhan (2005) also emphasises the complex and context-dependent nature of the openness-poverty relationships by examining the various processes through which

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[7] . These values differ considerably from the 'universal' income growth elasticity of -2 that Collier and Dollar (2001, 2002) use in their influential policy simulations.

openness to foreign trade and long term capital movements affect the lives of the *rural poor*. Greater international integration operates on the rural poor through four causal mechanisms in their capacity as i) workers; ii) consumers; iii) recipients of public services; and iv) users of common resources. As workers the rural poor are mainly either self-employed or wage earners. The self-employed tend to work on their small (often subsistence) farms or as artisans and petty entrepreneurs in what amounts to the rural informal sector. The constraints they face are in credit, marketing and insurance, and infrastructure. Bardhan argues that opening up the product markets internationally without doing anything about the weak and distorted factor markets or poor infrastructural services may be a sub-optimal policy for the poor. Furthermore, protectionism in the industrialized world and subsidisation of farm and food products severely restricts export prospects for poor countries. At the same time, as producers, the poor could benefit from the international diffusion of technology, as observed in the Green Revolution which led to large reduction in poverty in Asia.

Whether the poor, as consumers, actually gain or lose from openness depends on whether or not they are net buyers of tradeable goods (such as rice) and the extent to which the retail market structure is monopolistic blocking the pass-through from border prices to domestic prices. As recipients of public services, globalization can affect the poor in two ways, first, through budget cuts mandated by international agencies to reduce budget deficits and achieve macroeconomic stabilization, and secondly, through falls in tariff revenues following trade liberalization. Governments often find it politically more expedient to cut public expenditures for the voiceless poor. Clearly, it is easy to blame the globalisation process for domestic institutional failures which could at least partially be remedied through an attack on corruption and insisting on greater accountability by domestic institutions.

In their capacity as users of common property resources the rural poor can potentially be hurt if trade liberalisation encourages overexploitation (such as massive deforestation) of fragile environmental resources. Bhardhan observes that it may be difficult and even counter-productive for a country to adopt environmental regulations while its competitors do not adopt them at the same time and thereby are able to undercut the former in world markets. The policy recommendation that suggests itself is greater coordination of environmental regulations on an international scale.

Similarly, many small farmers are heavily dependent on multinational marketing chains for establishing a foothold in global markets, as these products require new storage and transport infrastructure, large set-up costs and marketing connections. Under such a circumstance, what is required to protect the poor is new legal rules and institutional structures that can facilitate contract farming and agro-processing in a way that does not expose small producers to exploitation by large marketing chains. Bardhan calls for more energetic international attempts to certify codes against international restrictive business practices and to establish an international anti-trust investigation agency, possibly under WTO auspices. More generally, he argues for pro-active public programs to help poor farmers adjust and coordinate, and suggests that international agencies *that* preach the benefits of free trade have an obligation to contribute to such programs with financial, organizational and technical assistance.

Jenkins (2005) focuses his analysis on the impact of integration of the global economy (rather than trade policies as such) on the poor in their role of as producers.

His central question about the impact of globalisation on employment and income opportunities for poor people is addressed through case studies of three value chains- horticulture, garments, and textiles- in four countries, Bangladesh, Kenya, South Africa and Vietnam. In the context of analysing the comparative performance among case-study countries, he proposes to make a clear conceptual distinction between "non-globaliser" and "unsuccessful globaliser" and he categorises Kenya as a unsuccessful globaliser, while Vietnam is successful in integrating in terms of outcome though remaining relatively closed in terms of policy. Further, the impact of increased exports on employment has been much more significant in Bangladesh and Vietnam, where unskilled labour intensive industries accounted for 90% and 60 % of manufactured exports in the late 1990s respectively, than in Kenya and South Africa, where the corresponding figures were 16% and 10% respectively. In these two African countries, skilled workers (as proxied by education levels) benefited from globalisation while unskilled workers were adversely affected.

In presenting the case studies, he first emphasises, as all other contributors, that the outcomes of globalisation processes are highly context-specific, dependent, both on the institutional framework and government policies which mediate global processes. Several patterns emerge, nonetheless, from his four case studies of global value chains. For example, the growth of labour intensive exports of manufactures and agricultural products does create employment opportunities, particularly for low income women and migrants from rural areas, as horticulture exports in Kenya or garment exports in Bangladesh and Vietnam reveal. However, the requirements of global value chains mean that these jobs often demand a high degree of labour flexibility, long hours of work and poor working conditions, making workers vulnerable both in terms of security of employment and income. Opening up to global competition has also led to job losses and deterioration in working conditions and employment conditions, as the case of textile industries in South Africa illustrates.

Further, Jenkins shows how gains from globalisation are likely to be more widely distributed where the initial structure of assets and entitlements is more equitable, as in Vietnam. In the latter, a strategy of building linkages between the export sector and domestic production has been more effective in creating employment and reducing poverty than trade liberalisation. On the whole, he concludes that even in those cases that have been successful in developing labour-intensive exports, the overall impact of globalisation on poverty has been relatively small. The majority of the poor are not engaged in global production and other strategies are required to reach them. Clearly, integration with the global economy is not a substitute for an anti-poverty strategy.

III. Other Channels in the Globalisation-Poverty Relationship

How these other channels work?

Nissanke and Thorbecke (2005) suggest that in addition to the "growth" conduit, there are other major channels through which globalisation affects poverty. They include *technology* (the nature of technological progress and the technological diffusion process); *factor mobility* and more particularly the pattern of labour migration brought about by the process of globalization; *vulnerability* (increasing world integration and openness tends to be associated with greater volatility and vulnerability of poor households to economic and financial shocks); *the flow of*

information and *institutions* in both developed and developing countries that mediate the effects of the above channels on the poor.

These channels may be largely responsible for explaining why the poor have not emerged as larger beneficiaries of contemporary globalisation. According to the theoretical prediction embedded in the Stolper-Samuelson theorem, developing countries well endowed with unskilled labour should experience a decline in income inequality through an increased demand for unskilled labour, while unskilled labour in developed countries would lose out with an adverse effect on equity. However, the empirical evidences reveal that wage gaps between skilled and unskilled labour have been increasing in many developing countries, particularly in Latin America and Africa.

Several specific features associated with the current phase of globalisation, explain why the theoretical prediction does not hold. For example, the nature of technical progress and new technology is heavily biased in favour of skilled and educated labour, as technical change emanates from R&D activities in the developed (industrialised) countries in response to local conditions (Culpepper, 2002). Hence, technical change tends to be labour-saving and skill- biased, and new technology is complementary to capital and skilled labour, while it is a substitute for unskilled labour. Hence, technical change tends to increase inequalities in both developed and developing countries. Furthermore, technological diffusion and access to new technology is not universal and spontaneous, while intensified privatisation of research e.g. in bio-technology may have adverse effects on access of developing countries and the poor to new technology. The resulting widened productivity differences explain cross- country wage/income inequality.

The 'perverse' factor movements could provide another explanation. Capital and skilled labour do not migrate to poor countries as much as among developed countries. Rather, there is a tendency for skilled labour to migrate from developing countries to developed countries, while unskilled labour migration tends to be strictly controlled. With capital market liberalisation, there is a propensity for capital flight to developed countries, particularly during periods of instability and crisis. Thus, Culpepper (2002) concludes that with such perverse movements, as globalisation proceeds, developed countries would see inequality fall, while developing countries would experience rising inequality.

Furthermore, the differentiated degree of cross-border factor mobility (skilled labour and capital vs unskilled labour and land) affects the functional income distribution between labour and capital against the former. Wage equalisation does not take place through labour migration, as was the case in the previous globalisation *era.* Some workers are losing out as *de facto* labour mobility takes place through the increasingly free cross-border capital mobility and TNCs' ability to re-locate production sites in response to changes in relative labour costs. In fear of driving away TNCs, governments of developing countries are less likely to enact regulations to protect and enhance labour rights (Basu 2003). Generally, the poor and unskilled are most adversely affected by asymmetries in market power and access to information, technology, marketing and TNCs activities and the dominance of TNCs in commodity and value chain.

Greater openness tends to be associated with greater volatility and economic shocks. Poor households tend to be more vulnerable to these shocks. The process of global disinflation while, on the one hand, helping the poor by containing price increases might have taken place at the possible cost of slower growth and fiscal retrenchment, thereby reducing the ability of nation states to provide adequate safety nets to those adversely affected by recurrent global financial and economic crises. Globalisation has contributed to the enormous increase in the flow of information and knowledge world-wide. The internet technology and the spread of mass media transmit the most recent information almost instantaneously. At the same time, increased global flows of information can result in changing reference norms and increased frustration with relative income differences, and could increase volatility and insecurity for many cohorts. Finally, institutions act as a filter intensifying or hindering the positive and negative pass-through between globalisation and poverty and can help explain the diversity, heterogeneity and non-linearity of outcomes. Several of these channels are further explored in detail by different WIDER conference authors.

Technology Channel

Graff, Roland-Holst and Zilberman (2005) focus entirely on the *technology* channel. The paper argues and makes the case that the potential exists for globalization to confer dramatically higher food productivity and rural incomes on developing countries, via the mechanism of North-South technology transfer – in particular, biotechnology and medical transfers. The authors observe that while biotechnology has advanced agricultural productivity growth in the more developed countries, it has had little actual impact so far in the Third World. They argue that a combination of medical (e.g. mass immunization and HIV drugs) and bio-technical technologies (e.g. genetically modified seeds) can have a major positive impact on the poor, first, by improving their health and energy level and hence their potential employability, and secondly, through agricultural productivity gains raising the incomes of small scale farmers and through a concomitant reduction in food prices benefiting the net food buyers and, in especially the urban poor.

The main challenge to the diffusion of these medical and bio-*technical* innovations is that they are very much in the private domain, in contrast with the Green Revolution technology that was squarely in the public domain. Multilateral pharmaceutical and biotechnical firms (typically in the North) hold the intellectual property rights and patents on these innovations which tend to raise their costs and may make them unaffordable to the poor without some major institutional changes. The authors describe a new type of institution potentially capable of overcoming the lack of access to intellectual property rights, namely the Intellectual Property Rights Clearinghouse (IPRC) and elaborate on how this institution can be further modified to speed up the technology transfer. Some companies provide technologies to orphan markets for the sake of public relations. Such goodwill motives may induce them to give away the rights to use the technology, especially in products that do not threaten established markets. One important role of the clearing- house is to establish arrangements for facilitating access to private and public (university) patents for orphan markets. The authors make a convincing case that the potential of biotechnology to reduce poverty in the developing world is significant if the appropriate institutional reforms are undertaken.

Zhao (2005) focuses *on* the *technology* diffusion process by which new technologies are introduced *in* developing countries. He emphasises that technology adoption and *diffusion is* a critical factor determining whether developing countries could truly benefit from new technologies through the globalisation process. Even if a new technology can potentially increase the income level of rural farmers, it may not be adopted by all and its diffusion may be slow due to adoption sunk costs and uncertainties about net payoffs of the technology in question. The lack of capital, credit and risk-sharing possibilities as well as the limited access to information about new technologies would hinder technology adoption and diffusion. An adoption of new technologies can be hindered by uncertainties about their efficiency. For example, without independent external information sources, farmers in developing countries have to rely heavily on their neighbours-"leaders", i.e. those who have adopted the technologies to obtain vital information about new technologies.

Hence, by constructing an adoption model, he studies the role of information exchange between early and late adopters of a new technology and about each other's likelihood of adoption. Based on his analysis, his paper discusses ways to promote adoption, including initial information provision, timing communication about the technology and about each farmer, and compensating early adopters for their information services.

Technology and Environmental Degradation

Aggarwal (2005) analyzes the combined effects of *openness* (trade liberalization and short term capital), *technology* transfer and *institutions* on one important phenomenon affecting the poor, i.e. environmental degradation. She examines various mechanisms through which globalization (defined as the interaction among the above three channels) may affect the well being of the poor through its effects on the local ecosystem on which the poor depend for their livelihood. In her analysis she draws on models on ecosystem dynamics and the New Institutional Economics (how institutions and technologies evolve) to assess the environmental consequences in a number of specific prototypical configurations.

An important concept emphasized by Aggarwal is that of resilience, i.e. the capacity of an ecosystem to maintain its structure and pattern of behaviour in the face of disturbance. She argues that the transfer of (essentially agricultural) technology often funded by external sources may lead to a shift towards more modern resource management practices that have very short term time horizons. Firms and even farmers expect quick results and pay-offs. These changes such as, for example, mono-cropping, carried out over vast tracts of land reduce functional diversity and increase spatial uniformity in grassland ecosystems thus leading to a loss of resilience. As a consequence primary producers become more vulnerable to price volatility and shocks such as droughts. The loss of bio-diversity results in a reduced number of pathways through which stress in the environment can be absorbed. An important observation of the study is that very often the governance structure of institutions (at village, state or national levels) does not overlap with the scale of ecosystems that often transcend political boundaries. Hence the closer matching of ecosystems and governance structures calls for the design of new and appropriate institutions – a key challenge for policymakers intent on reducing some of the negative effects of globalization on the environment and the rural poor.

Vulnerability Channel

Ligon (2005) focuses entirely on how globalization affects poverty through the *vulnerability* channel. Even if one accepts the argument that globalization contributes to an increase in aggregate income measures, a second consequence of globalization is increased uncertainty resulting from greater variation in income and expenditure caused by global shocks. Poor households, in particular, who tend to be risk-averse may be harmed by greater volatility in their income streams. The paper seeks to account for variations in the consumption distribution across countries and time and then to estimate the welfare loss associated with different types of shocks.

On the basis of a large scale panel data set yielding the changes in quintile income distribution over the last fifty years for a sample of 34 countries (mostly developing) and treating each country-quintile-year as an observation, Ligon finds that globalization shocks, although smaller in magnitude than country-level shocks, play a statistically significant role in explaining variation in consumption growth across both time and across the world distribution of consumption expenditures.

Ligon concludes that the risk faced by households from globalization and country-level shocks is relatively large, with households willing to sacrifice 5 per cent of their expected consumption for eliminating all risk. More specifically, he finds that the "globalization risk associated after controlling for country –level shocks" is non-trivial and could account for the anti-globalization sentiment apparent in some of the countries in his sample.

The paper by **Montalbano, Federici, Triulzi and Pietrobelli** (2005) also takes up the issue of increased *vulnerability*, resulting from trade liberalisation, as experienced by *countries* in Central and East Europe (CEECs) since the early 1990s. Focusing on macro vulnerability, their analysis shows that the extremely high volatility of consumption observed in this region is strongly related to trade shocks. i.e. the high volatility of trade openness and terms of trade. Hence, they suggest that trade liberalisation, as implemented in the 1990s, may have actually worsened growth and welfare performance in Eastern Europe. They also found that the per capita income of the poorest quintile of the population is most vulnerable to these trade shocks. On the basis of their empirical evidence, they argue for the need to adopt, in the case of emerging and transition countries, forward looking national policies to support their process of trade liberalization, i.e. policies both to mitigate the impact of trade shocks and to enhance the 'coping mechanisms. They also call for improvement in the governance of the globalisation process by establishing a new 'culture of prevention' and designing mechanisms for limiting the size and frequency of shocks at the international level.

Information Diffusion Channel

Graham (2005) notes the increased insecurity and vulnerability in the process of globalisation with reference to one of new branches of economics, namely the economics of happiness. She observes that there are noticeable differences between standard money metric measures of poverty and inequality in assessing the effects of globalisation and people's subjective assessment of some of the consequences of

globalisation. She explores how the economics of happiness can help explain these discrepancies between economists' assessments of the benefits of globalization for the poor and individuals' real and perceived welfare outcomes, such as vulnerability to falling into poverty among the near poor, distributional shifts at the local, cohort, and sector level; and changes in the provision and distribution of public services, among others. She suggests that the latter trends play a major role in determining public perceptions about the benefits and fairness of the globalization process.

Using the survey results on the well being or happiness in Peru and Russia, Graham tries to draw a broader picture of the dynamics of poverty and inequality in the process of integrating in the global economy, in particular how the poor and the near poor in developing economies fare during the process of globalization. Her analysis is very much focused on income mobility and on reported well being as a way to gauge movements in and out of poverty and distributive trends across time and across cohorts within countries.

She argues that while globalisation is a major engine for growth in aggregate, globalization either introduces or exacerbates other trends that affect people's well being as much if not more than income, for example, through the increasing flow of information about the living standards of others, both within and beyond country borders. This flow of information can result in changing reference norms and increased frustration with relative income differences, even among respondents whose own income is rising. Her analysis also illustrates how globalisation can bring about increased volatility and insecurity for many cohorts, particularly those that are not well positioned to take advantage of the opportunities created by the opening of trade and capital flows. She argues that this insecurity, and the very real threat of falling into poverty for the near poor and lower middle classes, contributes to negative perceptions of the globalisation process, particularly in countries where social insurance systems are weak or where existing systems are eroding.

Graham concludes that many social and collective measures should be in place for globalisation to have positive effects on poverty. These include measures such as public investments in health; institutions that can ensure adherence to basic norms of equity and fairness; and collective investments in social insurance to protect workers from the volatility that often accompany integration into global markets. In the absence these measures, she warns that globalization will only create opportunities for those that are best positioned to take advantage of them, leaving behind large sectors of poor and vulnerable individuals.

Institutions as a Channel

Institutions mediate the various channels and mechanisms through which the globalization process affects poverty. **Sindzingre** (2005) suggests institutions act as a filter: intensifying or hindering the positive and negative pass-through between globalisation and poverty and can help explain the diversity, heterogeneity and non-linearity of outcomes. For example, on the one hand, the impact of globalisation on the poor is intermediated by domestic political economy structures and institutions such as social polarisation, oligarchic structures, and predatory regimes, which may bias, confiscate or nullify the gains from globalisation for particular groups of poor. On the other hand, the positive effects of globalisation on growth and poverty can be

found when institutional conditions are characterised by such features as political participation, social cohesion and management of social conflict arising directly from globalisation effects.

In particular, she distinguishes two causal processes in the globalisation-poverty relationships. The first one is the impact of globalisation on institutions. Globalisation can induce institutional change, which in turn may have positive or negative effects on poverty reduction. However, the pace of change can be very different among institutions. For example, globalisation as a set of flows and policies is more likely to induce transformation on the aspects of institutions that are already experiencing rapid change (e.g. formal political or economic rules), and less likely on slow-changing institutions such as social institutions. The second causal process is the impact of institutions on globalisation. Globalisation is 'filtered' (intensified or hindered) by institutions at the country and micro levels (villages and households).

Sindzingre argues that institutions generate threshold effects because of their composite nature: institutions are indeed made of distinct components— forms and contents (e.g. functions, mental models etc) — that evolve differently over time. Further, forms do not correspond to unique contents and functions, and growth results from contingent combinations of policies, structures (economic, geographic endowments) and institutions. Under certain conditions where these various components interact in a particular combination, institutions may generate processes of cumulative causation and self-sustained poverty traps.

IV Paths towards Pro-Poor Globalisation

It should be clear from the above discussion that the globalisation-poverty relationship is complex and heterogeneous, involving multifaceted channels. Hence, it is understandable why the globalisation debates tend to raise many emotive issues. As Bardhan (2005) notes, however, these debates often involve a clash of counterfactuals. For those against the on-going process of globalisation:
"a counterfactual is the world of more social justice and less dominant trading and investment companies, which gives some more breathing space to the poor producers and workers. On the other side the counterfactual for pro-globalisers is the case when there is no (or limited) trade or foreign investment, a world which may be worse for the poor (as it is in the extreme cases of the closed economies of North Korea and Burma). The way out of this clash of counterfactuals is to insist that there are policies that may attempt to help the poor without necessarily undermining the forces of globalisation". Hence, he holds the view that the distributional issue raised in the debate is not an argument against globalisation (open trade and investment regimes) *per se* but for pro-active public programs to protect the poor.

Indeed, not integrating into the global economy is not a viable or attractive development option for any nation. As noted in **Deardorff and Stern** (2005) countries that do not actively participate in trade liberalisation are more likely to lose. They explore the impact of globalization on countries excluded from the process of globalization, i.e. those that have chosen (or in some cases were forced to choose) to remain relatively closed off from world markets. They use an analysis of the offer curve and a political economy model to examine the effect on countries that fail to

participate in multilateral trade negotiations or preferential trading arrangements but nevertheless are engaged to some extent in international trade.

They show that the "outsiders" are likely to be harmed, through the terms-of trade-effects, by multilateral MFN tariff reductions as well as preferential trading arrangements (PTAs) between insiders. In their analysis, it is the exclusion of some sectors and/or some exporting countries from the benefits of tariff cuts that creates a bias against non-participating and excluded countries. The best cure for these excluded nations is to become active participants in world markets and the world economy, in general. While there is no guarantee that the welfare gains of joining the world economy would contribute to a reduction in the large scale poverty that reigns in those countries and particularly in Africa, their analysis suggest that it is likely to have a welfare-increasing effect by stimulating economic growth for previously excluded countries.

However, as noted in **Nissanke and Thorbecke** (2005), a mere adoption of open trade and investment regimes per se does not guarantee developing countries' entry into the "income convergence club" Hence, policies of *strategic integration* are called for, as the effects of international trade and investment on growth are critically dependent on the pattern of specialisation and integration. Whether global market forces establish a virtuous circle or vicious circle depend on the initial conditions at the time of exposure and the effective design and implementation of policies to manage the integration process.

Hence, in our view, a strategic position towards globalisation cannot be equated with a simple fine-tuning of the pace and sequence of liberalisation measures. It requires a long-term vision for upgrading a country's comparative advantages towards high-value added activities by climbing the technology ladder step by step through learning and adaptation. In particular, national policies should be strategically designed in the light of the skewed nature of the on-going process of globalisation such as the nature of technical progress that favours high-skill and knowledge-intensive activities and the uneven distribution of market power caused by TNCs, resulting in a hugely skewed distribution of gains from globalisation. The positive benefits from globalisation are neither automatic nor guaranteed and passive liberalisation would risk perpetual marginalisation.

There is also a need for policy aiming at *structural transformation* in relation to various transmission mechanisms discussed in the paper, in particular on the ground that there are critical *thresholds* for positive effects of globalisation on poverty reduction to realise. The non-linear Laffer-type relationship between globalisation and poverty, noted by both Milanovic (2002), and Agenor (2003), shows that openness helps those with basic and higher education, but reduces the income share of those with no education and it is only when basic education becomes the norm even for the poor that openness exert an income equalising effect. Thus, at low income levels, openness appears to affect equality negatively while at medium and high income level it promotes equality.

Sizable public investment in skill upgrading, as a specific pro-poor measure, is a key for ensuring positive benefits from globalisation. At the same time those countries which have not yet reached the critical threshold, need a) to invest in agriculture in

order to reach the take-off-point to allow the structural transformation of their economies to proceed; and b) to strengthen institutions of social protection.

Our review also raises the issue as to whether the present form of globalisation/integration is conducive to a process of growth-cum-structural transformation, which is capable of engendering and sustaining *pro-poor* economic growth and favourable distributional consequences. Various project papers suggest that globalisation indeed produces adverse distributional consequences at both the national and global levels that could slow down or even reverse the present poverty alleviation trend. Hence, globalisation should not be viewed as a reliable substitute for a domestic development strategy. Designing an active development strategy should be based on a better understanding on the key issue: what structure and pattern of growth contributes most to the alleviation of poverty.

However, it is clear that to address the distributional consequences of globalisation, a set of re-distributional instruments at both national and global levels might be required. At the limit this would call for exploring alternative, more equitable forms and processes of globalisation to start with. However identifying such new forms would requires a much better grasp of the concept of "*pro-poor globalisation*" than we presently hold.

For advancing our understanding of what pro-poor globalization may entail, **Basu** (2005) focuses his analysis more on the process of marginalization resulting from globalization. He argues that the *openness* channel is likely to result in international prices of goods and services somewhere between prices in industrialized nations and prices in developing countries but closer to the former. Since a) labour is less mobile across borders than goods and services; and b) the nature of technological progress favours capital and skill- intensive innovations, it seems reasonable to expect for sections of the labour force in poor nations, and especially the illiterate and unskilled who are unable to take advantage of the new technology *that* wages will lag behind prices. Hence some of the poorest people may be subjected to a period of hardship before the benefits of opening-up trickles down.

Basu is concerned that the emphasis on maximizing per capita income in an era of fast globalization might not place sufficient weight on poverty and inequality reduction. Instead he proposes that the normative criterion which should be adopted in evaluating a country's well-being is that of the per capita income of the bottom quintile of the population. Such a measure would combine reducing poverty and inequality. He proceeds to build a simple model showing that the adoption of the "bottom quintile income criterion" in addition to leading to a pro-poor growth pattern would alleviate the erosion of each national government's power to follow an equity-conscious policy – an outcome that obtains under the alternative case where income maximization is assumed to prevail. In order to escape from what amounts to a Prisoner's Dilemma situation, Basu suggests two policies; 1) the creation of a new international coordination organization that helps coordinate inter-country anti-poverty policies; and 2) workers in all firms as well as currently unemployed labourers be given a fraction of equity earnings from all firms. The latter would insure that the functional income distribution between capital and labour (especially unskilled labour) did not become too uneven.

As Bardhan (2005) notes, globalization should not be allowed to be used, either by its critics or by its proponents, as an excuse for inaction on the domestic as well as the international front. What is called for is therefore liberalization to be accompanied by a comprehensive policy package for enhancing the capability of the poor and instituting a safety net for people who lose in the process.

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