

# CHAPTER 6

## CAPITAL FLIGHT AND INCOME DISTRIBUTION

- **INTRODUCTION**
- **ECONOMIC DISPARITIES AND INEQUALITIES**
- **NEO LIBERAL IDEAS ON THE NEXUS BETWEEN OPENNESS AND INEQUALITY**
- **CONCEPT OF THE WORLD INCOME INEQUALITY**
- **THE GROWTH CHANNELS IN THE OPENNESS-GROWTH-INEQUALITY-POVERTY NEXUS**
- **INEQUALITY-POVERTY LINK VIA FUTURE GROWTH**
- **DEBATE ON PRO POOR GROWTH**
- **OTHER CHANNELS IN THE GLOBALIZATION-INEQUALITY- POVERTY NEXUS**

## **CHAPTER 6**

### **CAPITAL FLIGHT OPENNESS AND INCOME DISTRIBUTION**

#### **6.1: INTRODUCTION**

Capital flight from developing countries represents a lost potential for economic growth and development. In the contemporary literature of development economics, there has been increasing attention to the notion of capital flight. Many analysts have attributed sluggish economic growth and persistent balance of payments deficits in most developing countries to capital flight (Ajayi, 1996). In addition, capital flight has adverse consequences for developing countries. First, the loss of capital through capital flight erodes the domestic tax base and therefore affects income redistribution. Secondly, it reduces a bank's ability to create money for investment projects. Most importantly, capital flight contributes to the distribution of income from the poor to the rich (See Pastor, 1990, and Ajayi, 1997).

The literature also highlights several routes of capital flight from developing countries. Prime among those are external borrowing and trade misinvoicing. Also many authors have identified factors that cause capital flight including risk of inflation, taxation, political risk instability, financial repression, weak institutions, ineffectiveness of macroeconomic policies, business cycles, overvaluation of exchange rates, and poor investment climate, to name a few (See, Hermes, Rensink and Murinde, 2002, Schneider, 2003 and Boyce and Ndikumana, 2002

The residual approach developed by the World Bank, we define capital flight as the difference between capital inflows and foreign exchange outflows. The rationale behind such characterization lies in the argument that capital inflows are either used to finance current account deficits or else accumulated in the central bank as foreign exchange reserves. Accordingly, flows that do not go to either account are regarded as capital flight. More specifically, a surplus of inflows over reported uses reflects positive capital flight. Such funds are not recorded in the official statistics and therefore, according to the residual approach, counted as capital flight.

#### **6.2: ECONOMIC DISPARITIES AND INEQUALITIES**

The breakdown of political and social cohesion is being exacerbated by the way the world economy is evolving. Expectations of prosperity that had been raised with the triumph of capitalism have not been fulfilled. The following is now beyond doubt:

- But for a few countries, economic globalization has increased the prosperity of the few and the poverty of the many instead of increasing wealth and eliminating poverty. This is true of rich and poor countries alike.
- instead of lifting developing countries out of *underdevelopment* economic globalization has exacerbated the inequalities between rich and poor countries.
- instead of taking the former industrialized countries of the Soviet communist empire into the promised land of mass consumption, it meant de-industrialization and a sharp decline in mass incomes for many of them.

If the overall economic performance of the past 15 years is anything but pitiable in statistical terms, it is thanks to India, China and a number of smaller Asian countries that scored tremendous successes with their own economic policies. As these countries are home to more than one-third of humanity, their advances count for a lot.

When the World Bank underlines the reduction of worldwide poverty in the 1990s, that achievement is attributable to the successes of India and China and has nothing to do with the performance of the other developing countries.

### **Inequalities**

If we think of the 6 billion human beings as members of one and the same society, then we live in a crass class society. Somewhat more than one thousandths of the world's population (7.7 million of 6 billion people) are dollar millionaires. Just under one per cent of this one-thousandth, or 17,000 so-called ultra high net worth individuals, own a fortune of over 30 million dollars. This small tribe of super rich owns the lion's share of all of the world's publicly protected assets. The army of the poor is immense by comparison. The World Bank and our governments classify the 1.2 billion or 24 per cent of humanity who live on less than a dollar a day as the poorest. Their number is to be halved by 2015 thanks to aggressive international assistance. The 600 million poorest, who should be faring better in 2015, will perhaps be earning as much as two dollars per day, which is the current daily income of 3 billion people, or half the world's population.

For a true appreciation of the rather low one-dollar poverty line – no-one from the North would know how to survive on their own on a dollar a day in Sudan – a comparison with the gross domestic product of the poorest countries would be meaningful. According to World Bank figures, it averaged \$430 in 2002, or \$1.17 a day. From this we must subtract the disproportionate incomes accruing to those in power, owners of capital and the ruling elites, the costs of preserving their power and running the state, as well as the amortization of the capital stock

and new investments. The bulk of the remainder goes to men, the crumbs to women and children.

The World Bank's poverty line conveys the misleading impression that the other half of the world's population that has more than two dollars per day is doing comparatively well. World Bank economist Branko Milanovic paints a more accurate picture in his studies. He defines as the rich class all those with a yearly income of over \$PPP 8,000 (purchasing power parity), which is the mean income for Italy. This wealthy class covers only 11 per cent of all humanity. Another 11 per cent represents something like a small global middle class with an income of \$PPP 3,800-8,000, where \$ 3,800 is the average income in Brazil. By this calculation, 78 per cent, or almost four-fifths of the world's population fall into the class of the poor.

### **The great dilemma**

As far as we know, spreading the industrial production and consumption patterns of the world's wealthy class to 6 billion people would seriously deplete the natural resources vital to human survival. This is even more true for the 10 billion people expected by middle of the century. That is one side of the dilemma. On the other hand, the North-South gap and the world's crass class society will hardly be overcome without some catch-up industrialization in the developing countries. This could be essential to preserving humanity's vital social resources as well as a measure of global peace and human freedom. The billions of people now living in cities and mega cities have no practicable way back to traditional agriculture let alone a path to modernized, high-output and hence less labour-intensive farming.

There is thus a certain contradiction between preserving humanity's social resources and preserving the natural ones. And each cannot be preserved at the cost of the other without reaching the realm of the absurd.

As it is defined in the Brundtand Report and by the 1992 UN Rio de Janeiro Summit, sustainable development is an attempt to come to grips with the dilemma in practical political terms. Sustainable development attempts to propagate industrial production and consumption patterns worldwide, while simultaneously halting and reversing the concomitant process of environmental degradation. It further strives to strengthen the social cohesion that is being permanently undermined by industrialization, the erosion of traditional social bonds and by environmental setbacks.

Critics have been observing from the outset that sustainable development is inherently contradictory. Yet it is that very contradiction that makes the concept attractive. All players felt included, even the most powerful, and it seemed that everyone could benefit from a clever policy mix. The promise to turn serious conflicts of aims into pure win-win situations was tempting, for the privileged

above all, because social or environmental improvements did not seem to be at their cost.

Many who did not believe that all conflicts could be harmoniously resolved still judged the concept positively. If the ruling classes realised that their activities were running into serious conflicts of aims, then – it was to be hoped – they would take more balanced decisions, examine conflicting interests and strike genuine compromises. If sustainable development is to progress beyond mere rhetoric, then efforts must be concentrated on the environmentally sustainable conversion of industrial production and consumption patterns. Only in this way can it be extended to all mankind while avoiding environmental meltdown. The centerpiece of this is giving up energy production from non-renewable energy sources whose combustion is undoubtedly harming the climate. In addition to the shift to renewable energy sources, it is also vitally important to switch industrial production to closed raw materials circuits and in general to promote the dematerialization of the economy.

Much of what would have to be done was discussed exhaustively as much as three decades ago. There is now a variety of technologies for harnessing energy from renewable sources. Scientific and technological investment must nevertheless be drastically stepped up if any real headway is to be made with respect to closed raw materials circuits and more broadly in the dematerialization of the economy. The tasks to be done are enormous and cannot simply be left up to the «invisible hand of the market», not least of all, for as Stiglitz quips, it is invisible because it does not exist at all. It is clear – and was even written into the Rio declarations – that the industrialized countries must take the lead in converting industrial production methods.

They are the ones chiefly living above their environmental means. They have the means of actively pursuing this conversion. And they provide the role model for catch up industrialization, and often the requisite hardware as well. Yet the industrial countries and their big corporations are pursuing «technological revolutions» of another kind whose environmental sustainability (except for communication technologies) is dubious. Generally speaking, despite our leading elites' reiterated commitment to sustainable development, we are treating the environment in a manner that does not guarantee the survival of humanity beyond the 21st century.

Most environmental indicators have deteriorated over the past 15 years. Of greatest global significance is climate warming, which if allowed to continue unchecked is likely to destroy the living space of hundreds of millions of people especially in developing countries. Besides, there are signs of serious shortages when it comes to the key resources for human survival, i.e. water and fertile land. Rather than any strengthening, the past 15 years have seen the weakening of the political will to tackle environmental risks and to convert industrial production

patterns. The policy of economic globalization has fostered the opposite of sustainable development.

And in the core industrial countries, substantial currents of conservative opinion are now pouring scorn over the scientific bases underlying the predictions of environmental risks and are setting about dismantling existing environmental policy instruments in their countries and undermining the few international agreements concluded. There is no doubt that environmental risks are greater for those less able to find the wherewithal to protect against negative environmental impacts. Not only is the *laissez-faire* environmental policy resulting from the conservatives' denial of reason shoring up the crass worldwide class society, it is also compounding the plight of most of humanity.

### **6.3: NEO LIBERAL IDEAS ON THE NEXUS BETWEEN OPENNESS AND INEQUALITY**

The relation between some prevailing neo liberal ideas on the nexus between openness and inequality issues, and mainstream economic theory, more specifically, neoclassical economics is worthwhile to state here. We will show that these propositions are not rigorously grounded on mainstream economics. Since most supporters of the criticized ideas consider themselves neoclassical economists, this paper is an exercise in immanent criticism. We will discuss the theoretical foundations of the following three common fallacies:

- (1) Trade liberalization reduces inequality within developing countries,
- (2) Trade liberalization reduces inequality across countries, and
- (3) Capital account liberalization also reduces inequality across countries.

#### **1. "Trade liberalization reduces inequality in developing countries by raising the employment levels and real wages of the poor".**

This fallacy can be illustrated with the following typical quote from two World Bank economists, Matusz and Tarr (1999):

"Unskilled labor is relatively abundant in developing countries. In the context of the Heckscher- Ohlin model, trade reform can be expected to increase the overall demand for such labor in the long run. This follows since such countries have a comparative advantage in goods that use unskilled labor intensively. Removing policies that favor import-competing sectors at the expense of (labor-intensive) export sectors ultimately results in an expansion of the latter and contraction of the former. Any increase in the demand for unskilled labor results in a combination of higher wages and employment for this segment of the population".

This is an example of the simplified, commonly used version of the Heckscher-Ohlin- Samuelson model of international trade, which assumes two goods, two

factors, identical production functions across countries and no factor-intensity reversals. The factor couple is usually capital and labor, or capital and unskilled labor, as in the quotation above.

The implication of the quoted proposition is quite obvious: developing countries should not fear trade liberalization, because it would bring not only higher efficiency but also more equity. Then, the costs of adjustment associated with liberalization would mainly be due to a temporary jump in frictional unemployment.

However, the quoted proposition is not a simplification, but a generalization of some South Asian and East Asian cases, which in regard to Latin America, is a wrong one. It is a simplification because it tells a two-factor story in a world with more than two factors, and it is a wrong generalization because the more relevant couple (if it were defensible to stick to the two-factor version of the model) of factors need not be the same across the developing world.

Indeed, the most relatively abundant factors in the South Asian countries are natural (agricultural) resources and unskilled labour. Hence, trade liberalization most likely raises the rents perceived by the owners of these resources. In some South Asian countries, labor is even a scarce factor; therefore, the rigorous application of Heckscher-Ohlin theorems would imply (if we stick to the two factor version) that most likely trade liberalization hurt the poor and raised inequality, especially, because of the high concentration in the property of natural resources.

On the other hand, the non-reversal of factor-intensities assumption might be too strong in some cases.[ Recall that factor-intensity reversals are only ruled out when factor elasticity of substitution do not differ between sectors (Bhagwati and Srinivasan, 1983, p.58)] For instance, there is evidence that agriculture, more specifically, corn production, is labor intensive in S. Asian nations while it is capital intensive in the United States. These reversals have been detected long ago comparing rice production factor intensities in Asia *vis-à-vis* the United States (Arrow *et al*, 1962). This means that even if unskilled labor is among the abundant factors, which is probably true in the case of India , Bangladesh and Pakistan, we cannot predict a higher demand for unskilled labor. Indeed, in a two-good, two-factor model, if the autarky relative price of corn in India & Bangladesh is higher than the free trade price (after a still not accomplished removal of agricultural subsidies in the United Sates), trade liberalization will lead to a lower demand of unskilled labor at initial factor prices.

Perhaps, what is most disturbing about the use of an unqualified textbook version of the Heckscher-Ohlin for policy advice is the fact that even its most sophisticated versions have been empirically rejected (see, for instance, Bowen *et al*, 1987; Trefler, 1993 and 1995). The existence of significant technological differences across countries, even after controlling for different kinds of natural resources and categories of labor is the main reason behind the empirical failure

of the Heckscher-Ohlin model. The fact that these differences have not been uniform across countries and goods, might have important distributional implications. For instance, suppose that a labor-abundant country has a larger technological gap in labor intensive goods than in other classes of goods, then a likely result of trade liberalization will be a lower demand for labor-intensive goods with negative distributional consequences.

Clark and Feenstra (2001) report that something like this happened in India under British rule: Indian exports were land-intensive while Indian imports were labor-intensive.

## **2. "Trade liberalization favors per capita income convergence and therefore it reduces inequality across countries".**

In a well-known paper, Ben-David (1996) claims to provide empirical "evidence that income convergence, while far from being a worldwide phenomenon, seems to be a prevailing feature among countries that trade a lot with one another". He also claims that "the *degree* of convergence is also likely to be affected by the magnitude of trade among partners. Groups that experience greater increases in volumes of trade are also more likely to experience faster reductions in their income disparity". [Causality is an issue, since correlation between two variables says nothing about the former.

At the beginning of the paper, Ben-David recognizes trade could be caused by income similarity between countries as claimed by Linder, instead of income convergence being caused by trade.] Ben-David concludes that his findings "would appear to corroborate Heckscher (1919) and Ohlin's (1933) intuition that trade does indeed play an equalizing role ..." and does not hesitate to draw the following policy conclusion: "evidence that heightened trade may be associated with a reduction in these [income] gaps should provide some reassurance to the advocates of free trade."

Ben David's "equalizing exchange" argument for trade liberalization had an impact in the 1990s and it was used to support preferential trade agreements between developing and developed countries, such as the so-called Free Trade Area of the Americas. It is interesting to point out that Ben-David's hypothesis was not derived from theory but merely conjectured as an extrapolation of the factor-price equalization theorem. Slaughter (1997) has rightly shown that factor-price equalization does not ensure income convergence since the latter depends not only on the former but also on convergence of relative factor endowments.

Following Slaughter (1997), this can be illustrated with Equation 1, an accounting identity which shows that GDP per worker can be decomposed into two terms, capital income per worker and the worker's wage ( $W$ ); in turn, capital income per worker equals the rental price of capital goods ( $R$ ) times a real measure of the stock of capital goods per worker ( $K/L$ ). Let's assume that trade liberalization

equals  $R$  and  $W$  across countries. Still, income (absolute) convergence will need equalization of  $K/L$  across countries. As a static model, Heckscher- Ohlin is mute on this issue.

$$(1) Y/L \equiv R K/L + W$$

Indeed, not even factor price equalization should reduce the income gap between countries. Both, Ben-David and Slaughter have overlooked this possibility. Suppose there are two autarkic countries: a rich country, endowed with a high stock of capital goods per worker, and a poor country endowed with a lower stock of capital goods per worker. Under orthodox assumptions, both countries will gain from trade liberalization, which means that income per worker will go up in the two countries. Income per worker convergence would require a larger relative gain in the poor country than in the rich one, but this result is not warranted. In fact, it can be shown that the relative income per worker gain of a country is increasing in the country's relative capital per worker gap with respect to the free trading world average, regardless the sign of the gap.

In fact, since the world's average relative factor endowment is closer to the region's relative factor endowment with more workers, most likely, the relative gains from trade liberalization will be larger for the richer and smaller (in terms of labor) region, implying divergence instead of convergence. However, the main problem with Ben-David's conjecture is the confusion between static model (trade theory) and dynamic model (growth theory) results.

Let us examine more carefully the consequences of plugging some trade model results in two popular neoclassical growth models, Solow's and Ramsey's. To accomplish this, we need to open up Uzawa's two sector growth model, which assumes different production functions for capital and consumption goods. Recall that a recurring sufficient condition for uniqueness of the momentary equilibrium, the balanced growth path, and the stability of the latter in Uzawa's closed economy two sector growth models, is a lower capital intensity in capital goods Sector. Otherwise, it wouldn't be possible to make predictions.

The former assumption has strong implications. After trade liberalization the labor-abundant country will specialize in the production of the capital goods and the capital-abundant country will specialize in the production of consumption goods. Of course, this outcome is brought about by an increase in the after trade relative price of capital goods for the labor-abundant country and vice-versa for the capital abundant country.

The impact of the after trade change in relative prices implies that GDP would decrease in terms of the good which became more expensive and would increase in terms of the other good. For the labor-abundant country this means that its GDP would buy less units of the capital good. If capital accumulation were

driven a-la-Solow by a constant savings rate, then the stock of capital goods (and GDP) would fall after trade. Therefore, the dynamic effect of trade liberalization would be negative in a stable two-sector neoclassical model for the poorer country. Since the effect would be the opposite in the rich country, the case for "equalizing exchange", that is to say, income convergence, is even weaker.

[The implication that in the open "well-behaved" two-sector growth model the poor country should specialize in capital goods might seem at odds with the facts. Please, keep in mind that we are not judging the empirical relevance of the two-sector neoclassical model but to what extent some popular conjectures might be derived from it.]

It is unclear whether the fall of GDP caused by a lower capital stock, the dynamic effect of trade liberalization, will offset the static gain mentioned above. Of course, a priori we cannot rule out the possibility that the negative dynamic effect might be greater (in absolute value) than the static gain. Perhaps the most interesting thing about these results is that we did not assume any market failure. Of course, the presence of market failures would weaken or even destroy the case for trade liberalization. The wide class of dynamic comparative advantage models has grown significantly. Even Lucas (1988) contributed to this literature arguing that it was impossible to explain the Korean miracle on the basis of traditional neoclassical models of trade and growth. But this is well known.

Let us examine now what we can get from combining Heckscher-Ohlin with the infinite horizon neoclassical model, usually known as the Ramsey model. It is worth noticing that the so-called Ramsey model differs in some important respects from the original: (1) Ramsey assumed no discounting of future utility; (2) he modeled a planner's problem instead of a household choice, that is to say, his model was rather normative than positive. Therefore, from now on we will talk about the infinite-horizon neoclassical model (IHNM).

Assuming constant returns to scale, output per worker  $y$  can be expressed as a function of the stock of capital goods per worker  $k$ . The closed economy aggregate IHNM has a steady state or balanced growth path when the rate of return on capital  $r$  equals the rate of time preference  $\rho$  (assuming no growth in consumption per worker for simplicity). [If we assumed positive growth of consumption per worker in steady state at the rate  $g$ , then steady state  $r$  would equal  $\rho + \theta g$ , where  $\theta$  is the inverse of the intertemporal elasticity of consumption. For a standard and complete treatment see chapter 2 in Romer (1996) or Barro and Sala-i-Martin (1995).] This pinpoints the steady state stock of capital goods per worker  $k^*$  from the aggregate production function, given the depreciation rate  $\delta$ :

$$(2) \quad y = f(k)$$

$$(3) \quad r = \rho = f'(k^*) - \delta$$

$$(4) \quad k^* = f'^{-1}(\rho + \delta)$$

In the transitional dynamics towards the steady state of the economy, capital accumulation is driven by the difference between  $r$  and  $\rho$ . In other words,  $k$  grows as long as  $r > \rho$ .

Reasonably, this result translates to the two-sector version of the IHNM. It is not clear how to explain differences in the stocks of capital per worker between a poor country and a rich country within the IHNM. Some alternatives are:

(a) the rate of time preference is the same in both countries, but the while rich country is already at the steady state level of capital per worker, the poor country is still behind in this regard because it is in the transitional dynamics;

(b) both countries have reached their steady state levels of capital accumulation but they differ because the rate of time preference is greater in the poor country (it is more "impatient").

Explanation (a) can be interpreted as a situation resulting from different initial conditions. Explanation (b) is harder to sustain; certainly, rates of time preference might differ across countries and times, but then we would like to understand what causes their variation.

Let us now open up the two-good model. Suppose that trade liberalization leads to the equalization of good and factor prices across countries; then, rates of return on capital should also be equalized, as shown by Findlay (1995, chapter 2). This stems from the definition of the rate of return as the ratio of the rental rate the capital good to its price  $p_K$  minus the depreciation rate:

$$(5) \quad r = R/p_K - \delta$$

Before we consider Let us now consider the effect of trade liberalization on capital accumulation. The crucial issue is what will happen to the rate of return. Again, Findlay shows that the rate of return should be a decreasing function of the relative price of the labor intensive good, which once more is presumed to be the capital good (the "well-behaved" case). Therefore, the impact of trade liberalization on the poor country will be a fall in the rate of return on capital. If the poor country accumulated less capital per worker because it was still in the transition, trade liberalization will bring  $r$  down to its steady state level,  $\rho$ , and therefore, capital accumulation will stop.

The truncation of the transitional dynamics implies that trade liberalization will abort income convergence. Again, we have a dynamic effect that runs contrary to the apparently equalizing static effect. The case with different rates of time preference poses some logical puzzles. Let us assume that we start from autarkic steady states; then, rates of return will differ across countries.

If after trade, factor price equalization takes place, the prevailing rate of return on capital will be lower (higher) than the rate of time preference for the poorer (richer) country. Therefore,  $k$  will rise in the richer country and decrease in the poorer leading to ... income divergence! The divergence in  $k$  will eventually reverse factor price equalization. [Given the usual assumptions of the Heckscher-Ohlin model, that is to say, constant returns to scale, no factor intensity reversals, and same technology across countries, factor price equalization will fail when countries relative factor endowments are very different.]

From then on,  $r$  will fall in the rich country and rise in the poor country until they equate each country  $\rho$  and reach new steady states with wider differences in  $k$ .

### **3. "Capital account liberalization also favors income convergence across countries".**

The following quotation from the econometric literature is quite typical: "we find that financial liberalization mostly strengthens convergence" (Bekaert *et al*, 2002). It is also typical not to ground the hypothesis tested on any theory. A popular and informal argument for fallacy 3 goes like this:

poor countries have lower stocks of capital per worker and higher rates of return on capital than rich countries; then, capital account liberalization will benefit all countries because it will enable capital flows from the rich countries to the poor countries, thereby increasing the returns to rich countries' savers and lowering the cost of capital for poor countries' investments. [For the present discussion we will leave aside the important issues related to uncertainty in capital markets. Somehow, this means that we will examine the strongest case for capital account liberalization.]

Capital account transactions are usually interpreted as intertemporal trade. The presumptions of gains from intertemporal trade stem from the analogy to commodity trade. Again, gains from intertemporal trade will not necessarily imply convergence since the latter will depend on the distribution of the gains. The rationale behind the argument of what we might call "equalizing intertemporal trade" is a Solovian neoclassical aggregate production function like the one in equation 2. However, it is crucial for the argument that the production function be not only neoclassical (that is to say, with constant returns to scale and decreasing marginal productivities) but also the same across countries.

Let us illustrate the point with a Cobb-Douglass production function (equation 6). Symbols have their usual meanings and  $A$  is a parameter reflecting the efficiency of labor, usually interpreted as related with the state of technical progress. Equation (6') and (6'') show the production function in its "intensive form", in which output per worker  $y$  depends on the stock of capital goods per worker  $k$  and the efficiency of labor.

$$(6) \quad Y = K^\alpha (AL)^{1-\alpha}, \quad 0 < \alpha < 1$$

$$(6') \quad Y/L = (K/L)^\alpha A^{1-\alpha}$$

$$(6'') \quad y = k^\alpha A^{1-\alpha}$$

$$(7) \quad \partial y / \partial k = \alpha k^{\alpha-1} A^{1-\alpha}$$

The popular argument for capital account liberalization implicitly assumes that differences in  $y$  across countries are mainly explained by differences in  $k$  and neglects the role of differences in the efficiency of labor. Equation 7 shows that the marginal productivity of capital (*the* determinant of the rate of return in the neoclassical view), also depends on both the stock of capital per worker  $k$  and the level of  $A$ . Hence, it is perfectly possible to find countries that are richer than others in terms of income per worker but do not have lower marginal productivities of capital. Why? because differences in capital per worker are offset by differences in the efficiency of labor. But if the marginal product of capital is not necessarily lower in rich countries than in poor countries, the case for capital account liberalization will break down. Indeed, discussions about "why doesn't capital flow to the poor countries?" are commonplace in the new growth literature (Lucas, 1990); explanations differ but the fact is not disputed.

We mentioned before that the case for capital account liberalization rests on the hypothesis that differences in income per worker across countries are mainly explained by differences in capital per worker. However, this hypothesis has been so consistently rejected from an empirical viewpoint that it became a standard textbook example of the failures of the Solow growth model (Romer, 1996, chapter 1; Mankiw, Romer and Weil, 1992). As usual, the empirical failures might have several interpretations, but the evidence against the assumption of a common production function with no differences in efficiency across countries is overwhelming and ranges from the trade literature (v.g., Bowen, Leamer and Sveikauskas, 1987; Trefler, 1993 and 1995) to the growth literature (v.g., Easterly and Levine, 2001; Clark and Feenstra, 2001). This empirical evidence shows that factors other than capital per worker play an important role in explaining differences in income per worker.

Then, the opening up of the capital account *per se* will not necessarily bring in major capital inflows in developing countries. In a well-known paper, Mankiw, Romer and Weil (1992) have included human capital in the Solow model while

keeping the assumptions of constant returns and common technology. Therefore, the above differences in labor efficiency are interpreted as differences in human capital endowments. It is interesting to note that even this conservative departure from Solow also invalidates the argument for capital account liberalization precisely because the differences in human capital endowments across countries have the same effect as the differences in  $A$ , namely, they might compensate for differences in  $k$  preventing the marginal product of capital from falling.

On the other hand, the endogenous growth literature has built a strong case against the hypothesis of a rate of return that decreases in the level of output per worker. Partly motivated by the need to explain nonconvergence in income per worker (Romer, 1986), all endogenous growth models predict nondecreasing rates of return. The well known "AK models" are examples of the constant rate of return variety. Two examples are the two-sector growth models developed by Lucas (1988) and Rebelo (1991), both based on Uzawa's (1965) idea of a self-reproducible factor. It is interesting to recall that Lucas (1988) paper was partially motivated by the need to explain the failure of many developing countries to attract foreign capital inflows.

Within the endogenous growth literature, the knowledge-based models developed by Paul Romer (1986, 1990) and others, provide even stronger ammunition against capital account liberalization. Romer (1986) argues for increasing returns to scale based on R&D externalities that might lead to increasing rates of return. We will present a simplified version of Romer's 1986 model. Equation 8 shows the firm's production function which has constant returns to scale on the factors controlled by the firm. Output  $Y_i$  is produced with a composite capital good  $K_i$  which combines physical capital and an R&D firm's specific investment, and labor  $L_i$ . The efficiency of labor is an exogenous parameter for each firm but it is determined by the aggregate stock of the capital good.

[This means that the measure of each firm is negligible, that is to say, we are talking about competitive markets] (equation 9). Parameter  $\varphi$  measures the degree of R&D spillovers from a firm's specific investment to the rest of the economy. As a result of these spillovers, the aggregate production function has increasing returns to scale.

There is also a wedge between the private and social marginal productivity of capital, as shown in equations (11) and (12), which leads to a suboptimal level of investment in a market equilibrium.

$$(8) \quad Y_i = BK_i^\alpha (AL_i)^{1-\alpha}, \quad 0 < \alpha < 1$$

$$(9) \quad A = (\sum_i K_i)^\varphi = K^\varphi, \quad \varphi > 0$$

$$(10) \quad Y = BK^{\alpha+(1-\alpha)\varphi} L^{1-\alpha}$$

$$(11) \quad \partial Y_i / \partial K_i = \alpha BK_i^{\alpha+(1-\alpha)\varphi-1} L_i^{1-\alpha} = \alpha B (K_i/L_i)^{\alpha-1} K_i^{(1-\alpha)\varphi} = \alpha BK_i^{\alpha-1} K_i^{(1-\alpha)\varphi}$$

$$(12) \quad \begin{aligned} \partial Y / \partial K &= [\alpha+(1-\alpha)\varphi] BK^{\alpha+(1-\alpha)\varphi-1} L^{1-\alpha} = [\alpha+(1-\alpha)\varphi] B (K/L)^{\alpha-1} K^{(1-\alpha)\varphi-1} = \\ &= [\alpha+(1-\alpha)\varphi] B K^{\alpha-1} K^{(1-\alpha)\varphi-1} \end{aligned}$$

If  $\varphi$  equals 1, the marginal productivity of capital will be an increasing function of the amount of labor: constant with constant labor (an "AK model") and increasing if labor grows over time. If  $\varphi$  is greater than 1, the marginal productivity of capital will be increasing in capital. In all cases, even when  $\varphi$  is between 0 and 1, the marginal productivity of capital will be an increasing function of the stock of capital. That is to say, larger (in this regard) countries will, *ceteris paribus*, have a greater rate of return. In such a world, capital account liberalization might lead to polarization and divergence through cumulative processes, a result that certainly rings a bell in the developing world.

Romer (1990) presents a more Schumpeterian model in which market power allows innovators to recover their R&D investments. An important result is that both the growth rate and the rate of return are increasing functions of the stock of human capital. Therefore, capital account liberalization might again lead to income divergence.

We have examined three neoliberal propositions regarding economic openness and inequality that are commonplace in multilateral financial organizations, the business community, and even in the academia. According to them, free trade and capital account liberalization should, on one hand, help the poor and decrease inequality in developing countries, and on the other hand these policy reforms should reduce inequality between developing and developed countries by fostering income per capita convergence.

After careful scrutiny we show that these propositions are a *non sequitur* of mainstream neoclassical economics. That is why we call them fallacies. Some of them are based on wrong simplifications and generalizations of textbook models that have been consistently disproved in the empirical arena. Others are just plain wrong as they stem from the confusion between static theory results and dynamic theory problems.

Given the weak theoretical foundations of these fallacies, their popularity, especially in some academic circles, deserves an explanation.

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 policymakers 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 globalization can be significant for fragile developing economies and the world's poor. The downside of globalization is most vividly epitomized at times of periodical global financial and economic crises. The costs of the repeated crises associated with economic and financial globalization 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 globalization 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 globalization was highlighted by the finding from a number of studies, emerging in the last half dozen years, which explicitly examined the trend of world income distribution as it evolved during the heyday of the globalization era. Many of these studies point towards an increasing inequality in the world income distribution and limited—if not a lack of—convergence among participating national economies and across regions as globalization has proceeded. Concern about inequality trends is relevant to the extent that the latter may affect growth and thereby poverty alleviation in the future.

Inequality acts as a filter between growth and poverty.<sup>1</sup> [Wealth (asset) inequality does matter for poverty outcome as much as income inequality. Since wealth and income tend to be correlated among individuals, these two types of inequality are clearly interrelated. Due to the paucity of data on asset distribution, however, most empirical studies are limited to and focus on income inequality.] Inequality is also relevant to the measurement of poverty, if the *relative* definition of poverty is used rather than the *absolute* definition of poverty. While absolute poverty is defined in reference to a poverty line that has a fixed purchasing power determined so as to cover basic needs, relative poverty is determined as a fixed proportion of the mean income of population (Bourguignon 2004).

Practically all estimates of poverty are based on absolute poverty rather than relative poverty lines. The most recent estimate based on household surveys (Chen and Ravallion 2004) suggests that if one uses a poverty line of PPP adjusted US\$1 per day as a cutoff line, there were 390 million fewer people living

in poverty in 2001 than in 1980. The number of poor fell from 1.5 billion in 1981 to 1.1 billion in 2001, and the share of the population of the developing countries living below US\$1 per day declined from 40 per cent to 21 per cent. However, this study also shows that this progress on poverty reduction was mainly achieved by the substantial reduction of the poor in China (400 million fewer people were poor in China in 2001). Their estimate also indicates that the absolute number of the poor has fallen only in Asia and risen elsewhere and the total number of people living under US\$2 per day actually increased worldwide. In particular, poverty has increased significantly in Africa in terms of poverty incidence as well as the depth of poverty.<sup>2</sup> [See Wade (2002) and Deaton (2001, 2002) for critical discussions of the World Bank's estimates of global poverty and inequality used in these studies.]

Though any trend in poverty and income inequality observed so far cannot be exclusively or even mainly attributed to the globalization effect as such, without rigorous analyses, these various estimates, even the most optimistic ones, cannot dismiss the concerns raised that the globalization process, as it has proceeded so far, may have had adverse effects on poverty and income distribution.<sup>3</sup> These concerns have generated a passionate debate worldwide as well as a powerful anti-globalization movement.

The extent of controversy surrounding this debate reflects the fact that globalization is not a process proceeding neutrally in a policy vacuum, but a policy-induced condition.[ See Wade (2002) and Deaton (2001, 2002) for critical discussions of the World Bank's estimates of global poverty and inequality used in these studies.] Globalization is not purely driven by new technological innovations and progress or by 'neutral' market forces and other inescapable sociopolitical forces, as often depicted in popular writings.<sup>5</sup> In particular, the contemporary phase of globalization is, to a certain extent, an outcome emerging from the global consolidation and diffusion of the economic policy paradigm, which emphasizes benefits and positive features of the liberalized policy regime. In this paradigm, trade and financial liberalization is seen, along other market-based institutional reforms such as privatization, legal and other regulatory systems, as the *sine qua non* of a successful integration into a globalizing world economy. This kind of position with a particular ideological stance might be questioned in the context of the fiercely contested debate on the appropriate roles of markets versus states. Indeed, in this regard, the recent discussion over the effects of globalization 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 polarization 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 in recent decades cannot be explained by the 'traditional causes of inequality' (i.e., those responsible for income inequality in the 1950s-

70s), 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 attributable more directly to the contemporary globalization effects, i.e., the nature of technological changes and policy reform measures such as frequent application of deflation policy under stabilization-cum-adjustment; trade liberalization; the rise of financial rents following financial liberalization and privatization; changes in labour institutions; and erosion of the redistributive role of the state. [See Culpeper (2002) for further discussion of the effect of economic liberalization policies on income distribution and the poor.]

However, despite the utmost importance of understanding the globalization-poverty nexus, the precise nature of the various mechanisms, whereby the ongoing process of globalization has altered the pattern of income distribution and the conditions facing the world's poor is yet to be carefully analysed. As discussed below, the globalization-poverty relationship is complex and heterogeneous, involving multifaceted channels. It is highly probable that globalization-poverty relationships may be nonlinear in many aspects, involving several thresholds effects. Indeed, each subset of links embedded in the *globalization (openness)-growth-income distribution-poverty nexus* can be contentious and controversial. Besides the 'growth' effects of globalization on poverty (i.e., the effects of globalization on poverty filtered through economic growth), globalization/integration is known to directly create winners and losers, affecting both *vertical* and *horizontal* inequalities (Ravallion 2004a). Because these multifaceted channels interact dynamically over space and time, the net effects of globalization on the poor can only be judged on the basis of 'context-specific' empirical studies.

#### **6.4: CONCEPTS OF WORLD INCOME INEQUALITY**

An important issue that needs to be addressed at the outset, is what is meant by 'inequality' in the globalization debate. At least four different concepts (types) of income inequality can be identified. The first three concepts listed here were defined by Milanovic (2004).

— The *first concept* measures differences in mean incomes between countries (or regions). There is no population weighting and every country counts the same. This concept is useful in determining the extent of convergence or divergence among countries or regions.

— The *second concept* takes mean national (or regional) incomes but weights them by the population of the countries (regions). In this case the resulting

income distributions will be strongly affected by large countries (e.g., China and India) and regions.

The *third concept* measures interpersonal inequality at the global, national or regional level, respectively. At the global level, this concept yields the world's income distribution.

— A *fourth concept* is that of vertical and horizontal inequality. While vertical inequality refers to inequality among individuals at different levels of the income pyramid, horizontal inequality refers to inequality among individuals within the same broad income or socioeconomic class. [Ravallion-2004]

A crucial question is whether the worldwide income distribution has become more or less even during the recent globalization era. According to concept 1 (national GDPs per capita with each country weighed equally) there has been an almost continuous and sharply rising divergence over the last 50 years with the Gini coefficient rising from around 0.43 in 1950 to 0.53 in 2000. On the other hand, based on concept 2 (with each country's mean income weighed by population size), worldwide income distribution has become significantly more even with the qualification that this trend is totally driven by China. Hence, estimates of 'between-country' inequality vary widely, depending on whether estimation is made on the basis of using country weights (concept 1) or population-weights (concept 2) [Estimates with country-weights take each country as one observation, while those with population weights give people equal weights. The merits and demerits of using either method are discussed in detail in Ravallion (2004). He favours some hybrid weighting scheme as the best way of analyzing between-country inequality.] Note that both of these concepts ignore entirely the distribution of income within countries, as well as any change over time in those intra-country distributions.

The third concept captures inequality across individuals of the world as it includes the 'within-country' distributions. In this sense, it is the best measure of world income inequality and its evolution over time. The various attempts to measure this concept are in general agreement that worldwide inequality is very high and rose slightly up to the early nineties before falling marginally. The one exception is the study by Sala-i-Martin that appears to suffer from methodological flaws (Milanovic 2002a). [Estimates with country-weights take each country as one observation, while those with population weights give people equal weights. The merits and demerits of using either method are discussed in detail in Ravallion (2004). He favours some hybrid weighting scheme as the best way of analyzing between-country inequality.]

While globalization could alter both vertical and horizontal inequality (concept 4), as Ravallion (2004a) argues, globalization may affect horizontal inequality particularly adversely by producing winners and losers among broadly similar groups. But clearly, class conflicts could result from vertical inequality. For

example, a structural adjustment and trade liberalization programme could lead to higher food prices in a developing country, benefiting the farmers who are net sellers of food, while agricultural workers (the landless) who are net purchasers of food would be negatively affected by the reform.

## **6.5: THE GROWTH CHANNEL IN THE OPENNESS-GROWTH-INEQUALITY-POVERTY NEXUS**

Policies of openness through liberalization of trade and investment regimes, and capital movements have been advocated worldwide for their growth and welfare enhancing effects on the basis of the propositions embedded in the wellknown economic theories of international trade and investment (i.e. the Ricardian comparative advantage theory, the Heckscher-Ohlin-Samuelson model, the new trade theories of Krugman, or the model of intertemporal international borrowing/lending or portfolio allocation models). In these models, the main growth-enhancing effects of openness are assumed to filter through: (i) static efficiency gains associated with improved resource allocation for national economies as well as for the world economy due to increased specialization; (ii) dynamic efficiency gains from such factors as economies of scale, diffusion of information, technology transfers, knowledge spillover effects as well as intertemporal trade gains from cross-border borrowing/lending for increased investment and consumption smoothing and portfolio risk diversification.

In order to analyze and understand the impact of openness on poverty, the causal chain *openness-growth-inequality-poverty* has to be scrutinized link by link.

### **The openness-growth link**

The first link of the chain is from openness to growth. The main manifestation of openness is through trade and capital movement liberalization which in turn is presumed to affect growth directly through three sub-channels: exports, imports and capital inflows. Trade liberalization policies encourage exports which benefit export industries and contribute to GDP growth. Although this link is relatively transparent, one issue still debated in the literature is the direction of causality. Do exports influence growth or does growth influence exports or are they interlinked into a virtuous circle? Using an instrumental approach, Frankel and Romer (1999) make a rather convincing case that trade influences growth both by increasing human and physical capital and by boosting total factor productivity growth.

A second sub channel links increased imports to growth. A country that switches from a regime of import substitution to one of trade liberalization will, in the short run, hurt the previously protected domestic industries, and suffer from a fall in

fiscal revenues as a result of lower tariffs. However, the initial negative consequences on output are likely to be more than compensated through a more efficient allocation of resources and benefits of competition, leading to a higher growth path. Successful cases of trade liberalization leading to growth are usually found when import liberalization is preceded by, or implemented in tandem with, export promotion policy and other measures to strengthen the technological capability of domestic producers, as was observed in the Asian NICs.

The third sub channel operates through the impact of foreign investment (FDI) and portfolio and other capital flows on domestic output and growth. If FDI takes the form of 'Greenfield' investment as opposed to investment through merger and acquisition, much of the capital inflow from transnational corporations (TNCs) tends to be converted directly into factories producing new products. However, the transfer of technology, skills and management know how that is assumed to accompany FDI is not necessarily automatic or guaranteed. Further, the postulated positive effects of portfolio and other capital flows (hot money) on growth have been questioned increasingly in recent years. The recent IMF study (Prasad *et al.* 2003) acknowledges that it is difficult to establish a strong positive causal relationship between financial globalization and economic growth.<sup>11</sup> Furthermore these short-term capital flows contribute to the increased vulnerability to external shocks of the recipient developing countries.

*[conducted to show the beneficial effects of an open economy regime on growth, e.g., Dollar (1992); Sachs and Warner (1995); Dollar and Kraay (2001a, 2001b). However, the validity of these empirical exercises has been contested on technical grounds by many researchers.<sup>13</sup> In a recent comprehensive critical analysis of the various studies on the relationship between trade and growth, Cline (2004: 248) concludes that 'overall it would seem that the weight of the empirical evidence is on the side of those who judge that more open trade policies lead to better growth performance'. It is worth noting here, however, that the positive openness-growth link is neither automatically guaranteed nor universally observable]*

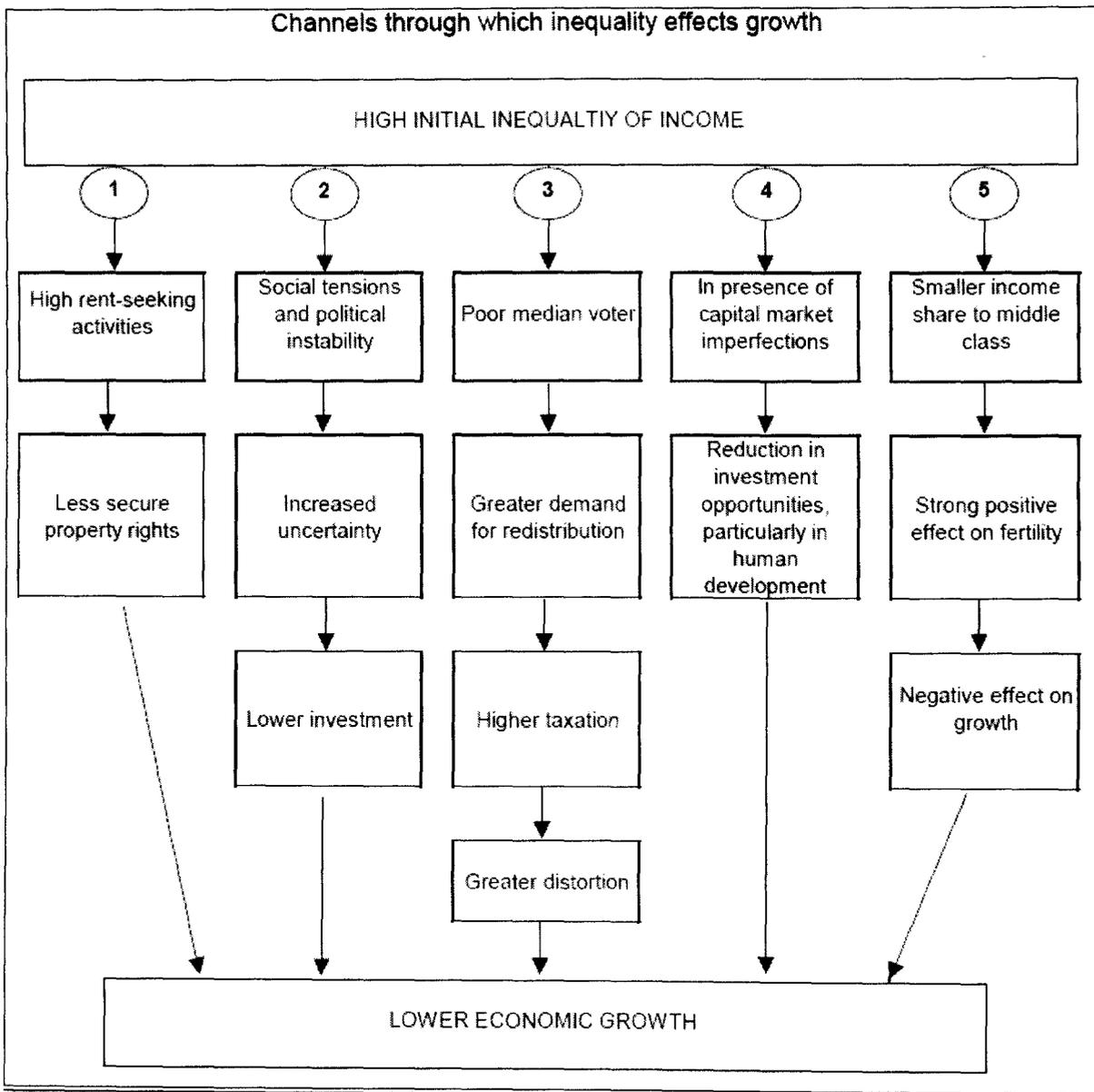
### **The growth-inequality interrelationship**

The second link in the causal chain from openness to poverty is the interrelationship between growth and inequality. There are two contradictory theoretical strands relating income- and wealth-inequality to growth. The classical approach best reflected by Kaldor argues that a higher marginal propensity among the rich to save than among the poor implies that a higher degree of initial income inequality will yield higher aggregate savings, capital accumulation and growth. Additional arguments in favour of the growth-enhancing effect of inequality are based on the existence of investment indivisibilities and incentive effects.

The contrasting new political economy theories linking greater inequality to reduced growth operate through a number of subchannels shown on Figure 1, which is adapted from Thorbecke and Charumilind (2002). These subchannels are, respectively:

- (i) unproductive rent-seeking activities that reduce the security of property;
- (ii) the diffusion of political and social instability leading to greater uncertainty and lower investment;
- (iii) redistributive policies encouraged by income inequality that impose disincentives on the rich to invest and accumulate resources;
- (iv) imperfect credit markets resulting in underinvestment by the poor particularly in human capital; and
- (v) a relatively small income share accruing to the middle class implying greater inequality—has a strong positive effect on fertility, and this, in turn, has a significant and negative impact on growth.

FIG. 6.1: CHANNELS THROUGH WHICH INEQUALITY AFFECTS GROWTH



[Sources: (1) Benhabib and Rustichini (1991); Keefer and Knack (2000); (2) Alesina and Perotti (1994); (3) Alesina and Rodrik (1994); Bertola (1993); Persson and Tabellini (1991) (4) Banerjee and Newman (1993); Aghion and Bolton (1997); (5) Perotti (1996).]

Some additional indirect paths (and more circuitous routes) through which inequality ultimately affects growth are likely to exist. Wide income and wealth disparities can impact on education, health and crime, respectively, through such manifestations as underinvestment in human capital, malnutrition leading to low worker productivity and stress and anxiety, respectively. In turn these manifestations may contribute to lower long-term growth.

High initial inequality is detrimental to growth in this way the Kuznets Hypothesis is widely criticized in several empirical studies. The proponents of this approach, while rejecting the immutability of the Kuznets curve, argue that growth patterns yielding more inequality in the income distribution would, in turn, engender lower future growth paths. Although country-specific evidence is quite limited and might not be generalizable to other settings, a recent study of the dynamics of inequality and growth in rural China based on the growth experience of villages finds robust statistically significant evidence that inequality reduces growth (Benjamin, Brandt and Giles 2004). The authors suggest that the mechanism by which inequality exerts its negative effect was through its tilting of village economic activity away from higher growth nonagricultural development towards agriculture, thereby impeding structural transformation into nonagricultural activities.

In the light of the new literature that emphasizes the impact of inequality on incentives, social conflicts, transaction costs and property rights, the possible link between growth and poverty is examined in recent UNU-WIDER studies (Cornia 2000 and Addison and Cornia 2001). These studies argue that: (i) there is a concave relationship between inequality and growth: growth can be low at low levels of inequality due to disincentive effects and low at high levels of inequality through depressing effects on private investment caused by social conflicts; (ii) in this concave growth-inequality relationship, there exists a 'growth-invariant efficient inequality' range.<sup>15</sup> Given this growth-inequality relationship, these studies suggest that any country that intends to maximize poverty reduction should choose the lowest level of inequality within the broadly growth-invariant, efficient inequality range.

## **6.6: THE INEQUALITY-POVERTY LINK VIA FUTURE GROWTH**

Since inequality is supposed to affect future growth and the future growth path, it also influences poverty. The UNU-WIDER volume cited above (Cornia 2004) concludes that the widespread increase in inequality has been detrimental to the objective of poverty reduction, because large rises in inequality have stifled growth, and because poverty, at any given growth rate of GDP, falls less rapidly in the case of a more unequal distribution than in the case of a more equitable one. Thus, in the analytical framework used to examine the inequality-growth-poverty relationship reviewed above, the UNU-WIDER study clearly indicates that high inequality tends to reduce growth. The obvious policy implication following from the above causal sequence is that successful poverty alleviation depends not only on favourable changes in average GDP per capita growth but also on favourable changes in income inequality.

The conclusions drawn from the UNU-WIDER study challenge the dominant mainstream views derived from a number of World Bank studies such as

Deininger and Squire (1996); Li, Squire and Zou (1998); Dollar and Kraay (2001a, 2001b). These conventional views argue that: (i) the 'within-country distributive impact' of globalization-cum-liberalization is on the whole neutral; (ii) the long-term distribution is broadly stable; (iii) there is no clear association between inequality and growth and growth is distribution neutral; hence growth is the only realistic option. For example, Dollar and Kraay (2002a, 2002b) argue that 'since the share of income going to the poor does not change *on average* with growth, the poor benefit from growth', and 'trade is good for growth and growth is good for the poor' [ Dollar (2002) further reaffirms the strong positive causality from integration through growth to poverty reduction on the basis of the experiences of five countries (Bangladesh, India, Uganda, Vietnam and China) during the period 1992-98.] They estimate that the *average* growth elasticity of poverty reduction ranges from 0.6 per cent to 3.5 per cent.[ An early study by Ravallion and Chen (1997) estimates that based on a sample of developing countries, the growth elasticity of poverty on average, as measured by the headcount ratio (the proportion of people living below the conventional US\$1 a day poverty line) is around 1.6] Bourguignon (2002) reports an average growth elasticity of poverty of 1.6]

However, the methodology used in yielding these results has since then been challenged. Ravallion (2002) argues, for example, that average neutrality found in the Dollar-Kraay study and other studies is not inconsistent with strong distributional effects at the country level. He concurs with Cornia's position, reaffirming that a critical question is whether or not inequality is an impediment to poverty-reducing growth, or in other words, whether high inequality attenuates the growth elasticity of poverty. His analysis confirms that the elasticity of poverty with respect to growth is found to decline with the extent of inequality.

There is probably no greater fundamental issue in economic development than a better understanding of the mechanisms through which growth affects poverty. Foster and Szekely capture the heart of the debate between two alternative approaches and models of development: one model emphasizes growth and efficiency under the idea that they eventually, if not immediately, improve the standard of living of the population at large, including the poor; the alternative model stresses that the state must play an active role in determining where the benefits of development end up, since it is not clear that the poor will benefit automatically (Foster and Szekely 2000: 59). While it is axiomatic that growth is a necessary condition for poverty alleviation, the key questions are how the impact and the magnitude of growth on poverty reduction can actually be fully ascertained and measured; and what is the optimal degree of active state intervention to reduce poverty without sacrificing (or with a minimum loss of) efficiency.

An inherent limitation of poverty measures is that they totally ignore the state of the income distribution above the poverty line.<sup>18</sup> An aggregate poverty measure

is essentially a welfare function in which the poor receive all the weight and the non-poor receive no weight (Kakwani, Prakash and Son 2000). Ideally, analysts would like to have access to a measure, spanning the whole income distribution, that combines poverty and inequality in a relatively non-arbitrary manner. Clearly, truncating income distribution at the poverty line is arbitrary and leads to a loss of information by failing to consider the distribution of income above the poverty line. Foster and Szekely (2000) quite cogently raise the question, 'Why should an income slightly higher (than the poverty line) be ignored, just because it is above the arbitrary cutoff being employed?'

They proceed to develop a methodology where the measurement of poverty is sensitive to the state of income distribution and includes a weighting scheme that is continuous in which the non-poor also receive positive weight which may be made as small as one wishes. It is based on Atkinson's (1970) family of 'equally distributed equivalent income' functions called *general means*. For different values of the parameter  $\alpha$ , more weight is placed on higher incomes (for higher parameter values) and more weight on lower incomes (at lower parameter values). Based on 144 household surveys from 20 countries over the last 25 years, Foster and Szekely show that the growth elasticity of the general means can vary from 1.08 to a very low 0.22, depending on the choice of  $\alpha$ . They conclude that: the positive value of the elasticity indicates that growth is good for the poor.

However, it seems that it is even better for other sectors of society. This suggests a role for additional policies aimed specifically at guaranteeing that the poor share the benefits of development more proportionally (Foster and Szekely 2000: 69). Indeed, despite the opposite inferences made by mainstream economists on the basis of cross-country regression analyses,<sup>19</sup> it has been increasingly recognized that 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.

This issue has led to a debate on what constitutes pro-poor growth.[ Culpeper (2002) notes, however, that the World Bank's strategy of 'pro-poor growth' usually consists simply of: (i) growth-oriented economic policies at the Washington consensus; (ii) social investments in health and education; (iii) social safety nets that cannot take advantage of new opportunities created by economic growth. Indeed, these three components constitute the strategy adopted in the HIPC Initiatives so far.]

## **6.7: DEBATE ON PRO-POOR GROWTH**

DFID (2004) notes that there are two competing approaches to defining what constitutes pro-poor growth: an *absolute* and a *relative* concept. The *absolute* concept is associated with the work by Ravallion (2004b). Focusing on the rate of change in absolute poverty, he defines pro-poor growth as any growth in mean

income that benefits the poor in absolute terms. According to this definition, any increase in GDP that reduces poverty measured by some agreed indicators is pro-poor growth, even if it is accompanied by a worsening income distribution. In contrast, the relative concept places much more emphasis on the distributional effect of growth, i.e. changes in inequality during the growth process. For example, Kakwani and Pernia (2000) consider growth as pro-poor if the distributional shifts accompanying growth favour the poor proportionately more than the non-poor.

As Osmani (2004) notes, what matters most for the relative concept is the nature and pattern of growth, whereas the absolute concept captures the effect of the totality of the growth process on poverty. Seen in this light, both concepts are useful for policymakers in tackling the issue of poverty reduction, although it is difficult for some analysts to *accept* as pro-poor growth a situation where, for example a 10 per cent aggregate GDP growth rate would reduce the incidence of poverty by only 1 per cent.[ It is important to note here that irrespective of which concept is used in discussing pro-poor growth, what is considered *pro-poor* critically depends on the choice of standards for poverty measurement, in particular, the shape of the distribution around the poverty line and the choice of poverty lines (Grinspun 2004).] Recognizing this point, Kakwani, Khandker and Son (2004) propose a better measure of pro-poor growth, using the concept of the 'poverty equivalent growth rate (PEGR)' which takes into account both the magnitude of growth and how the benefits of growth are distributed to the poor and the non-poor.[ If PEGR is larger than the actual growth rate, which occurs when the incomes of the poor grow more than the average income, then growth is pro-poor; if PEGR is equal or less than the actual growth rate, growth is said not to be pro-poor.]

Indeed, the debate on the meaning of pro-poor growth is related to the issue underlining the complex triangular relationships among poverty, growth and inequality, as discussed above. Taking up this relationship, Bourguignon (2002 and 2004) notes that first, absolute poverty reduction could be achieved through two effects:

(i) the growth effect, i.e. the effect of the growth rate of the mean income of the population; and

(ii) the distribution effect, i.e., the change in the income distribution.

Second, he emphasizes that these two effects are not independent of each other, but dynamically interact over time in a country-specific context, producing heterogeneity and nonlinearity in the poverty-growth relationship. More specifically, both the growth-elasticity and the inequality-elasticity of poverty are increasing functions of the level of development and decreasing functions of the degree of relative income inequality.

Hence, Bourguignon (2004) advances the following three interrelated points:

- i) Distribution matters for poverty reduction;
- ii) Effective redistributive policies may in fact yield a double dividend: they reduce poverty today and accelerate poverty reduction in future, as discussed above;
- iii) The real challenge in establishing a development strategy for reducing poverty lies in understanding the interactions between distribution and growth.

Thus, despite the heated debate concerning the definition of pro-poor growth, there appears to be general agreement that poverty reduction would require some combination of higher growth and a more pro-poor distribution of the gains from growth. For Ravallion (2004c), the real issue is not *whether* growth is pro-poor, but *how* pro-poor it is, which can be measured by a 'distribution-corrected' rate of growth. Referring to the growth-distribution relationship, Ravallion (2004c) supports the points made by Bourguignon above by arguing that 'while there may well be tradeoffs between what is good for growth and good for distribution, but some factors that impede growth may also prevent the poor from fully sharing in the opportunities unleashed by growth'.<sup>23</sup> From this perspective, one could reach a general definition acceptable to both sides of the debate, i.e. growth is considered pro-poor if it, in addition to reducing poverty, also decreases inequality.

Now, from a policy perspective, it is important to note that pro-poor growth cannot be achieved spontaneously. There is increasing recognition that the postulated 'trickle down' process often fails to materialize or is too slow to have a significant impact. Hence, pro-poor growth requires strong commitments on the part of policymakers to adopt pro-poor policies capable of producing and sustaining a distribution-corrected growth path. The exact design of such pro-poor policies depends on initial conditions and institutions in country-specific settings.

## **6.8: OTHER CHANNELS IN THE GLOBALIZATION-INEQUALITY-POVERTY NEXUS**

Aside from the *growth* channel discussed above, there are *various other* channels, through which globalization can produce winners and losers, and hence impact upon poverty. The globalization channels we examine here are:

- Changes in relative product and factor prices;
- Differential cross-border factor mobility and associated changes in global market and power structures;
- The nature of technical progress and the technological diffusion process;
- The impact of globalization on volatility and vulnerability;
- The impact of globalization on the flow of information;
- Globalization and global disinflation; and

- Institutions in developed and developing countries that mediate the various channels and transmission mechanisms linking globalization to poverty.

#### 1) Relative product and factor prices:

The income distribution effects induced by a shift in relative product prices in the process of *the* opening up of trade are well-known, as postulated in the Samuelson-Stolper theorem of international trade theory. The losers (especially the poor residing in either urban or rural area) may be vulnerable to these induced effects in addition to changes in absolute and relative prices of wage goods (Williamson 2002). Thus, globalization can affect poverty directly through relative price changes in factor markets and goods markets.

According to the Stolper-Samuelson theorem as applied to the within-country inequality, 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 postulated narrowing wage gaps between skilled and unskilled labour have not been observed in many developing countries, particularly in Asia, Latin America and Africa.

Kanbur (1998) explains this disconnect between what theory predicts and the actual outcome in terms of segmented factor markets and the time horizon of the analysis, suggesting that the benign income distribution effects would eventually materialize on the strength of long-run factor mobility.<sup>25</sup> Wood (1999) proposes two possible explanations for the increased wage disparity in South Asia: (i) the entry into the world markets in recent decades of low-income Asian and African economies, with abundant reserves of unskilled labour; and (ii) the nature of new technology heavily biased in favour of skilled and educated labour. [Many mainstream economists argue that higher unemployment and greater poverty observed following trade openness are the direct results of pervasive labour market 'distortions' such as minimum wage legislation or imperfect labour mobility across sectors induced by these distortions]

#### 2) Cross border factor mobility:

Globalization winners and losers can be produced through channels other than changes in relative product and factor prices which are a main conduit for the income distribution effect of trade openness in the Heckscher-Ohlin-Samuelson-Stolper (HOSS) model. For example, unlike in the HOSS world which assumes factor. In this context, it is of interest to note that income convergence among the globalizing countries during the first wave of modern globalization between 1870 and 1914 was driven primarily by migration. Sixty million people, including largely

unskilled workers, migrated from Europe to North America and other parts of the new world during that period (Williamson 2002 and World Bank 2002). In contrast, in the current phase of globalization, the extent of cross-border mobility differs significantly between skilled and unskilled labour. In consequence, as noted by Faini (2001), the 'wage equalization' theorem postulated by the international trade theory is less likely to take place through labour migration.

Furthermore, according to theory, capital seeking higher returns should move to capital-scarce developing countries, thereby raising the marginal productivity and labour wages in these countries (Easterly 2004). However, in reality capital does not flow to developing countries to finance productive investment as much as predicted (known as the Lucas paradox). International capital markets in recent decades have not acted as an intermediation function between saving supply and investment demand on a global scale. Rather, as Obstfeld and Taylor observe today's foreign asset distribution is much more about asset swapping by rich countries—diversification—than it is about the accumulation of large one-way positions—a critical component of the development process in poorer countries in the standard textbook treatments. It is more about hedging and risk sharing than it is about long-term finance... (Obstfeld and Taylor 2001: 64).

Indeed, the large discrepancies between *gross* capital flows and *net* capital flows reflected in countries' current account positions point to the condition where *diversification* finance far overwhelms *development* finance in cross-border capital transactions. More generally, Culpeper (2002) summarizes several distinctive features of factor movements in the current wave of globalization:

- (i) capital and skilled labour do not migrate to poor countries as much as among developed countries;
- (ii) there is a tendency for skilled labour to migrate from developing countries to developed countries;
- (iii) with capital market liberalization, there is a propensity of capital flight to developed countries, particularly during periods of crisis or instability.

With such 'perverse' movements, he points to the possibility that as globalization proceeds, developed countries would see inequality fall, while developing countries would experience rising inequality. We can indeed expect greater global integration to affect internationally mobile factors (skilled labour and capital) differently from those factors that are not—or [ See Nissanke and Stein (2003) for more discussion on the nature of financial globalization. ] less—mobile (unskilled labour and land) in both developed and developing countries (Rodrik 1997 and Kanbur 1998). In this context, Basu (2003) explains why unskilled labour is additionally disadvantaged in the current phase of globalization. He argues that while the mobility of unskilled labour is severely restricted and regulated, *de facto* labour mobility has taken place through the increasingly free cross-border capital mobility and TNCs' ability to relocate 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.<sup>28</sup> Thus as observed over recent decades, the differential factor mobility may profoundly affect the functional income distribution between labour and capital.

### 3) Technological progress and technological diffusion:

The nature of technical progress and of the technological diffusion process can be a further channel through which globalization could affect income distribution and poverty. Culpeper (2002) suggests that technical change emanates predominantly from R&D activities in the developed (industrialized) countries in response to conditions typical of their own resource endowment. Hence, technical change tends to be labour-saving and skill-biased, and would tend to increase inequalities universally in both developed and developing countries. Referring to the importance of distinguishing between three categories of labour (skilled, semi-skilled and unskilled labour), Milanovic (2002b) also explains the increased wage inequality in low-income countries with the situation in which increased globalization, through trade and FDI, has raised the demand for semi-skilled labour but not for unskilled labour, as a minimum skill level is required for production. Hence, it is the skilled or semi-skilled labour that benefits from globalization, while unskilled labour has been increasingly marginalized by it.

However, technological diffusion and access to new technology is not universal and spontaneous. Hence, global productivity differences may widen over time, which may increase income inequality. For example, Easterly (2004) argues that in addition to differences in factor endowments, productivity differences between countries have driven trade and factor flows, and income inequality.<sup>29</sup> Indeed, the technological gaps between innovating and imitating countries as discussed in Vernon's product cycle model are still a dominant factor in determining global inequality between countries in income and wages.

Arguably, globalization has accelerated the process of privatization, including the privatization of research. Nowhere is this trend clearer than in agriculture. The green revolution, which was in the public domain, has been replaced by the biotechnological revolution which is very much in the private domain. The latter is led by TNCs expecting royalty payments for their new products, largely genetically modified (GM) seeds. A potential issue is whether small farmers in developing countries (e.g., in Sub-Saharan Africa and South Asia) can actually afford to adopt biotechnology and if not, what are the consequences for income distribution and poverty. While it is probably too early to judge, it has been argued that the concern that risk-averse poor farmers cannot afford to purchase the costlier GM seeds does not seem to be vindicated by the dramatic take up of GM cotton in developing countries as soon as it is available and seen to be profitable. [adoption experience of all the selected South Asian countries.]

#### 4) Volatility and Vulnerability:

Greater openness tends to be associated with greater volatility and economic shocks, which affect more severely the vulnerable and poor households, and deepen poverty and income inequality (Culpeper 2002). Goldberg and Pavcnik (2004) also emphasize the effect of trade liberalization on inequality because of the increasing vulnerability of unskilled labour through several 'labour market' channels. Birdsall (2002) reports growing empirical evidence of validating the claim that the poor are hurt disproportionately more during contractionary periods than they benefit from expansionary periods. Similarly, on the basis of a very extensive survey of the empirical literature, Winters, McCulloch and McKay (2004) conclude that while the empirical evidence broadly supports the theoretical proposition that whilst trade liberalization will be poverty-alleviating in the long run and on average, it also necessarily brings about distributional changes. A lot of evidence can be placed to show that poorer households may be less able than richer ones to protect themselves against (short-term) adverse effects, or take advantage of trade liberalization.

The Asian financial crisis and the consequent analysis of the selected South Asian countries (discussed earlier) demonstrated unambiguously the high price poor households had to pay during the downturn. Massive capital outflows during the crisis combined with tight monetary and fiscal policies mandated by the IMF, led to wide currency fluctuations and a liquidity crisis that reduced output and employment. Poor households in the urban areas, lacking safety nets, suffered disproportionately during the transition period before these economies recovered.

Interestingly, there is some evidence that volatility is negatively correlated with growth in developing countries in contrast with developed countries where this correlation is positive (Kose, Prasad and Terrones 2004). An implication of this finding is that poor countries growing slowly are further burdened by greater volatility.

#### 5) Flow of information:

Globalization has contributed to the enormous increase in the flow of information and knowledge worldwide. Internet technology and the spread of mass media transmit information almost instantaneously. Clearly, this provides enormous potential to contribute to the human and technical capital of households in the third world. At this stage, an important issue is the design and development of channels through which this flow of information is made accessible to poor households in useful form.

Notwithstanding the major contribution this flow of information can make to speed up the development process, there are some downsides. Graham (2004) has argued that the increasing flow of information about the living standards of others can result in

changing reference norms and increased frustration with relative income differences, as members of a given socioeconomic or occupational group in a poor country can increasingly compare their welfare with similar groups in richer countries.

Globalization can also increase volatility and insecurity for many cohorts, particularly those (such as older people) not well positioned to take advantage of the new opportunities offered by the opening up of trade and capital movements.

#### 6) Globalization and global disinflation:

In the last decade, global inflation has dropped from 30 per cent per year to 4 per cent. Rogoff (2003) attributes this to a number of factors such as improved central bank institutions and practices, improved fiscal policy, and the technological revolution. However he emphasizes the role played by the increased level of competition, in both product and labour markets, that has resulted from the interaction between increased globalization, deregulation, and a decreased role for governments in many economies.

It would be difficult to argue that this dramatic disinflation channel does not have beneficial effects on the poor worldwide. Even the small subsistence farmers who tend to be relatively sealed off from the market economy must enjoy certain advantages in terms of lower prices for their consumption goods. However, a question to be raised is whether the overemphasis on macrostability in some developing countries might not have been at the expense of some additional growth.

#### 7) Institutions:

Institutions mediate the various channels and mechanisms through which the globalization process affects poverty (Sindzingre 2004). Institutions act as a filter intensifying or hindering the positive and negative pass-through between globalization and poverty, and can help explain the diversity, heterogeneity and nonlinearity of outcomes. This filtering process operates at the multi-country, country and even village level, respectively. International institutions such as the IMF and WTO follow their own rules of the game, having often a major impact on poverty outcomes.

Likewise, institutions that protect agricultural commodities in the developed countries can block the channel of exports for the same commodities from the poorest countries (largely in Sub-Saharan Africa), thereby preventing them from harvesting the benefits of trade openness. At the other extreme there are examples of village-level institutions that can protect resident households from environmental degradation and subsequent poverty caused by overexploitation of resources (such as forest resources) by TNCs.

Indeed, once institutions are defined broadly by North as 'the humanly devised constraints that shape human interaction', institutional environments are important in determining whether the benefits of globalization are harnessed and spread positively and evenly, and negative shocks associated with globalization are filtered out through safety nets. As Sindzingre (2004) argues, for example, the impact of globalization on the poor is intermediated on the one hand by domestic political economy structures and institutions such as social polarization, oligarchic structures, and predatory regimes that may bias, confiscate or nullify globalization gains for particular groups of poor. On the other hand, the positive effects of globalization on growth and poverty can be found when institutional conditions are characterized by such elements as political participation, social cohesion and management of social conflict arising directly from globalization effects.

At the same time, globalization can bring about changes in institutional environments. For example, as globalization proceeds, there may emerge a new set of norms and conventions, as well as new standards of transparency, accountability and enforcement of law and accommodation of human rights and civil movements.<sup>33</sup> Yet, traditional institutions may erode under the pressure of market integration. For example, customary land tenure may lose its social security and equity functions through the individualization of land rights and land concentration stemming from market transactions, especially when combined with demographic pressure. More generally, however, institutional changes can be slow and changes tend to work at the margin, since 'institutional change is incremental as a result of the indebtedness of informal constraints in societies'. [However, Sindzingre (2004) suggests that globalization 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 to affect slow-changing institutions such as social norms.]