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Income Distribution Policies For Faster Poverty Reduction

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Abstract

Inequality has risen in many countries over the last two decades, especially in the transition economies, but also in many developing and developed economies. This is disturbing since little progress can be made in poverty reduction when inequality is high and rising. Moreover, contrary to earlier theories of development, high inequality tends to reduce economic growth, and therefore poverty reduction through growth. This paper finds evidence of a concave relationship between inequality and growth: growth can be low (or negative) at low levels of inequality (due to disincentive effects) and low (or negative) at high levels of inequality (due, for instance, to the depressing effect on private investment of the social conflict associated with high inequality). 'Traditional' sources of inequality must be addressed through land reform, and more public spending on the human capital of the poor. But new causes of rising inequality must also be tackled by: redesigning stabilization programmes to avoid sharp anti-poor demand compression and to protect pro-poor spending; regulation of privatized enterprises to protect disadvantaged poor consumers; and more pro-poor education investment to offset the tendency of trade liberalization to increase income inequality.

Keywords: income inequality, poverty reduction, economic growth, social conflict

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I. Introduction

The last decade has seen an increasing focus on poverty reduction. Yet, inequality has risen in many countries over the last two decades, especially in the transition economies and also in the emerging and developed economies (Table 1, Cornia with Kiiski, 2001; Atkinson, 1999; Kanbur and Lustig, 1999). This new evidence overturns the conclusion of some authors (Li et al., 1998) that the long-term distribution of income within countries is stable.

Table 1
Summary of changes in income inequality in 73 countries from the 1960s to the 1990s

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

Source: Giovanni Andrea Cornia with Sampsa Kiiski (2001) 'Trends in Income Distribution in the Post-World War II Period: Evidence and Interpretation', *WIDER Discussion Paper* No. 89, UNU/WIDER: Helsinki.

Notes: The length of the time series and the number of observations about income inequality varies from country to country. In the countries underlined, very recent information (not yet included in the WIID) suggests that income inequality may have risen over from 1998-2000; i.e. in the wake of the recent wave of financial crises.

Some economists and policymakers are unperturbed by inequality's rising trend. Greater income concentration is seen as a source of greater incentives and faster capital accumulation—thus raising growth and income for all, including the poor—and as an opportunity for social mobility by disfavoured minorities. In societies undergoing rapid change, the transition economies especially, rising income inequality is seen as an unavoidable side effect of much needed privatization and liberalization and, more generally, as the result of the unwinding of socialism's compression of incentives.

Over the last decade, the Washington Consensus has increasingly focused on poverty reduction. But inequality has been mostly ignored; possibly because it raises uncomfortable questions about the social impact of Bank and Fund programmes. The Bretton Woods Institutions therefore cling to the view that poverty reduction can be achieved mainly through economic growth, the targeting of basic social services to the poor, and social safety nets. For sure, economic growth is very important. But, this perspective has its flaws. Poverty reduction through growth is limited when income and asset inequality are high; growth is then concentrated in a few groups, bypasses poor smallholders and microentrepreneurs, and creates little employment for the unskilled. It is not surprising, for example, that Latin America's poor have derived so little benefit from its periods of growth. Growth must be very fast indeed to achieve any poverty reduction when a society exhibits both high initial inequality and rising inequality.

Moreover, the traditional view that inequality is good for growth (and thus for poverty reduction through growth) is increasingly challenged, starting with the influential paper of Galor and Zeira (1993) (see Ferreira, 1999; Aghion et al., 1999; and Benabou, 1996 for literature reviews). New approaches also highlight the negative growth effects of the nexus between high and rising 'horizontal inequality' (i.e inequality among social groups), political instability and the risk of civil conflict (Nazfiger et al., 1999). And different reform strategies yield different patterns of growth, some more equitable than others (Addison and Demery, 1993; Cornia et al., 1987).

In summary we ignore high inequality and rising inequality at our peril. Although inequality raises many contentious issues—including land reform, progressive taxation, and core development strategy—little progress can be made in poverty reduction when inequality is high and rising. This paper discusses how we can achieve faster poverty reduction by means of policies that have, directly or indirectly, income distribution effects. The paper begins, in section II, by placing the issues in the context of recent trends in poverty and the DAC targets for poverty reduction. This opens up the question of the relationship between inequality, growth and poverty—if inequality is high then the DAC poverty reduction targets will be much harder to achieve. We then pursue this issue further in section 3 with an assessment of the main theories of the inequality-growth linkage. This sets the scene for our outline of an analytical framework in section 4, and an empirical analysis of this relationship in section 5. Finally, we conclude (section 7) by summarising some of the current gaps in the policies towards income inequality in the Washington Consensus.

2. Rising inequality and slow poverty reduction

The widespread increase in inequality will prove detrimental to the achievement of the poverty reduction objectives adopted by the international community in the late 1980s and

early 1990s. Large increases in inequality stifle growth and make it harder to achieve poverty reduction through growth.

The World Development Report 1990 (World Bank, 1990) projected that the total number of the poor (defined as people surviving on less than PPP\$1 per day) would have fallen from 1125 to 825 million between 1985 and 2000 (Table 2). Yet, the Bank's recent assessments for years both before and after the Asian crisis indicate that the original target will be missed by a wide margin. The number of poor worldwide was estimated at 1.214 million in 1998, and is expected to have approached almost the 1300 million mark in 2000. If China is removed from the total (last line of Table 2), the results appear even less satisfactory both in terms of poverty incidence—that declines between 1987 and 1998 by only 2.3 percentage points (or by an average of only 0.2 percent a year)—and the absolute number of the poor (that increases by 100 million). At such a pace, the DAC poverty targets for these countries will be reached around 2060 rather than around 2015.

Table 2
Estimated absolute number of the poor and poverty rates (in parentheses) between 1985 and 2000

Regions	1985 (assessed in 1990)	1987 (assessed in 1999)	1990 (assessed in 1999)	1993 (assessed in 1999)	1996 (assessed in 1999)	1998 (estimated in 1999)	2000 (projected in 1990)
E. Asia	280 (20.4)	415 (26.6)	452 (27.6)	432 (25.2)	265 (14.9)	278 (15.3)	70 (4.0)
EE/FSU	5 (7.8)	1 (0.2)	7 (1.6)	18 (4.0)	23 (5.1)	24 (5.1)	5 (7.9)
L. America	75 (19.1)	64 (15.3)	74 (16.8)	71 (15.3)	76 (15.6)	78 (15.6)	60 (11.4)
MENA	....	25 (11.5)	22 (9.3)	21 (8.4)	21 (7.8)	21 (7.3)	...
South Asia	525 (50.9)	474 (44.9)	495 (44.0)	505 (42.4)	505 (40.1)	522 (40.0)	365 (26.0)
SS Africa	180 (46.8)	217 (46.6)	242 (47.7)	273 (49.6)	289 (48.5)	291 (46.3)	265 (43.1)
Total	1125 (32.7)	1196 (28.7)	1293 (29.3)	1320 (28.5)	1180 (24.3)	1214 (24.3)	825 (18.0)
Total w/o China	...	891 (29.6)	916 (29.3)	955 (28.5)	960 (27.3)	991 (27.3)	....

Source: World Bank (1990, 1999).

Note: 1985 and 2000 figures are not entirely comparable with those for 1987-98 due to some changes in country groupings and the definition of poverty line, defined as \$370 a year in World Bank 1990 and \$365 a year in World Bank 1999.

Poverty rates rose faster than expected, on the basis of output contraction, in most of the states of the former Soviet Union where inequality escalated sharply. In Africa the share of the poor remained broadly constant over 1987-98 while the number of the poor rose by 74 million owing to output stagnation and the persistence of high inequality. In Latin America the poverty rate stagnated and the number of the poor rose by 14 million despite a moderate rise in output per capita. These results are even more dramatic when it is noted that during this period growth in these two regions has been faster than during the first seven years of the 1980s. Indeed, a comparison of the 1998 poverty estimates (Table 1) with those of 1980 would show for these two regions much greater rises in poverty. In China, the number of poor people declined very rapidly between 1978 and the mid 1980s, fell slowly or even stagnated between 1987 and 1993, and declined massively over 1993-6 (despite the population increasing by over 20 million people a year) because of sustained growth and a marked improvements in the terms of trade of agriculture. However, the sharp increase in inequality that began in the 1990s, has slowed progress on the poverty front despite continued high output growth.

What are the reasons for these mainly unsatisfactory results? The extent of poverty reduction is influenced by the observed changes in growth performance and income distribution. Formally, one can show that, given a constant poverty line (z), the change over time in the poverty headcount ratio (ΔPHR) can be decomposed into a percentage change in mean income (ΔGDP/c), a percentage change in its distribution (ΔGini) and an interaction term (*IT*):

$$(1) \qquad \Delta PHR = -\Delta GDP/c + \Delta Gini + IT$$

In this framework, as shown in Figure 1, for any given GDP/capita (G*), poverty reduction is maximized if policies are able to reduce income inequality to its lowest feasible level (Gini= 25, for example, in Figure 1).

Countries with high inequality which wish to target the poverty rate PHR* while avoiding any redistribution can do so by speeding up their distributionally neutral growth rate, so as to move from GDP/c$_1$ to GDP/c$_2$. Achieving faster growth, however, may be impossible due to environmental, trade or financing constraints. Pushing growth above its environmentally sustainable rate will only reduce poverty temporarily, since eventually it depletes the natural capital that supports livelihoods. Similarly, the country may face restrictions on faster export-led growth (e.g. northern protectionism in competing agricultural products). And investment in excess of domestic savings, to support fast growth, will require external financing that may not be forthcoming, especially for poorer countries.
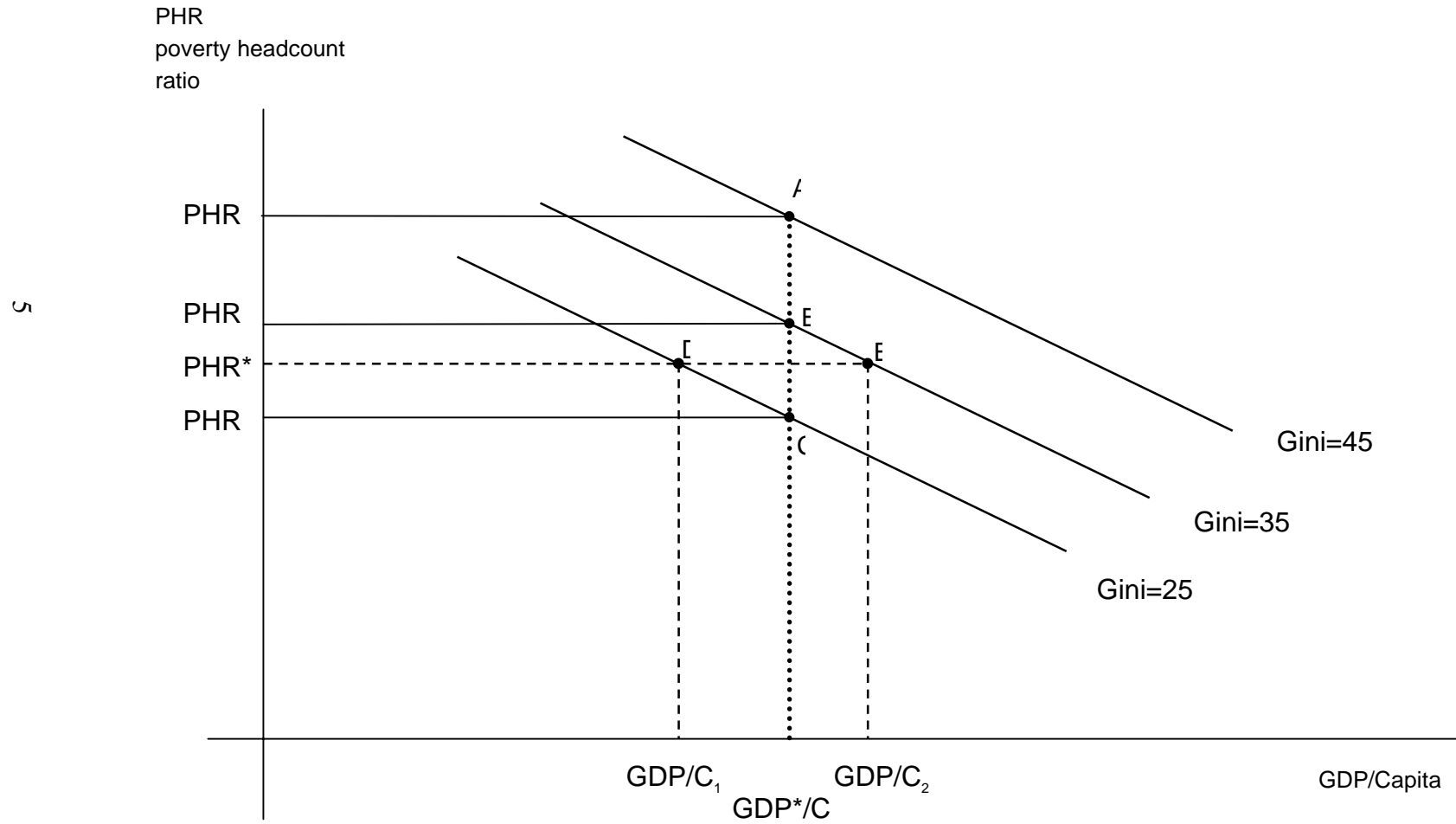
The experience of the developing countries in the field of inequality, growth and poverty reduction over the last 10-15 years is summarized in Table 3. The table shows that poverty rates rose in 43 percent of the cases (due to falling average income per capita and worsening inequality) and declined sharply (at 9.6 percent a year on average) in 27 percent of the cases due to rising income per capita and declining inequality. It also shows also that rises in income per capita per se do little to reduce poverty if they are accompanied by a surge in inequality. In these cases, the poverty rate almost stagnated (upper right quadrant).

Table 3
Changes in poverty rates in 117 growth spells covering 47 developing countries over the 1980s and 1990s

		Average Household Income Per Capita	
		Falling	Rising
Inequality	Rising	(17 percent of cases) poverty rising at 14.3% per year	(30 percent of cases) poverty falling at 1.3% a year
	Falling	(26 percent of cases) poverty rising at 1.7% a year	(27 percent of cases) poverty falling at 9.6% a year

Source: Ravallion (2001).

Figure 1
Relation between poverty and growth under different income inequality assumptions

PHR
poverty headcount
ratio

PHR

PHR

PHR*

PHR

A

E

E

C

Gini=45

Gini=35

Gini=25

GDP/C₁

GDP/C₂

GDP*/C

GDP/Capita

That successful poverty alleviation depends not only on favourable changes in average GDP per capita growth but also on favourable changes in income inequality is demonstrated as well by country examples (Table 4). In Brazil, in spite of an increase in incomes per capita, poverty stagnated over the 1980s as a result of an increase in inequality from already high levels. In Cote d'Ivoire, in contrast, the recession induced a steep rise in poverty over 1985-8 that was partly compensated for by an improvement in the rural-urban income distribution. Finally, in Bulgaria poverty increased over 1991-3 by much more than could be predicted by the average fall in per capita income, because of a sharp rise in inequality.

Table 4
Decomposition of changes in poverty over time into changes in mean income and changes in the distribution of income

	Total change in poverty (%)	Poverty effect of changes in income (%)	Poverty effect of changes in the distribution of income (%)	Residual (%)
Brazil 1981-8	0.01	-4.49	4.46	0.04
Cote d'Ivoire 1985-8	15.90	16.90	-6.00	5.00
Bulgaria 1991-3	8.10	0.90	6.60	0.60

Source: McKay (1997).

Notes: (1) negative values denote reductions in poverty, positive one, increases. (2) The residual is due to the fact that the sum of the changes in mean incomes and in income distribution does not equal the change in poverty (see Datt and Ravallion, 1992).

Unless reversed, current inequality trends will continue to reduce the poverty alleviation elasticity of growth and, as discussed in the subsequent section, may depress economic growth itself. This will in turn make it virtually impossible to meet the DAC target for reducing the incidence of poverty to 15 percent by 2015. At the moment, the World Bank estimates that income per capita in the developing countries will grow at an average of 4 percent a year until 2015. The impact of such growth on poverty depends very much on the pattern of such growth and on the extent of its inequality during this period. Hanmer and Naschold (2001) estimates that if the projected 4 percent growth is accompanied by low inequality (i.e. Gini coefficients of less than 43), then the DAC target can easily be met. In contrast, if the projected 4 percent growth is associated with high inequality, then by 2015 poverty rates will still be in the vicinity of 20 percent. In the high inequality scenario, the DAC poverty target will only be met if the growth rate of income per capita reaches a staggering 9 percent. Such a growth rate is without historical precedent—in the Asian Tigers, income per capita grew by 5.5 percent per year over 1965-97—and it is unlikely to be environmentally sustainable.

3. The inequality-growth nexus: economic theory and empirical results

In summary, it stretches credibility to believe that the development community's targets for poverty reduction can be met without addressing the high inequality that exists in so many countries. Part of this conclusion depends on the relation between inequality and growth or, more precisely, on the enhancing or depressing effects that high inequality (or large *rises* in inequality) have on growth. Hereafter, we review the main theories in this

field and their limitations, while in section IV we present the paradigm that, in our view, most accurately represents reality in a variety of different country settings.

3.1 Post-Keynesian theories of inequality

A first group of theories of Keynesian inspiration focuses on the differential savings rates of different economic agents in the context of models where growth is driven by capital accumulation. In such models (Kaldor, 1960; Pasinetti, 1974), profit recipients have a higher propensity to save than wage earners while high income wage earners have a higher propensity to save than low income wage earners. Therefore an income distribution that favours profits over wages facilitates a higher aggregate savings rate, faster capital accumulation and growth. These theories reflect the emphasis of 'old growth theory' on physical capital accumulation, a view that dominated development economics for years. This approach implies that, at least during the first stages of growth, high earnings inequality will be efficient, since it will maximise consumption by all social classes over the long-term.

However, this theory has little empirical support. Econometric analysis of budget surveys from developing countries shows that the marginal propensity to save is only weakly influenced by income level, and that the latter is certainly not its most important determinant (Cornia and Jerger, 1982). For instance, rural families consistently show higher marginal propensities to save than their urban counterparts.[1] Moreover, small and medium-scale farmers have high savings rates because such self-employed households include the maintenance and planned increase of their existing capital stock in their consumption savings decisions. And the self-employed may be forced to save more by the limited development of rural capital markets. Similar arguments are developed by Birdsall, Sabot and Pickney (1996) who emphasise that poor households generate comparatively high savings whenever they have an investment opportunity.

A further problem arises from the fact that the model at the basis of the old growth theory disregards the growth impact of human capital. If we add to the savings of workers their expenditures on health and education, it might appear that the workers do have *higher* savings rates than the capitalists. Indeed, a poor family is likely to spend an important part of an additional dollar of income in health and education, so effectively contributing more than a rich family's savings to capital accumulation. In summary, for all these reasons, the conclusions of this class of models are largely discredited.

3.2 New political economy models

The last decade has seen considerably more analysis of the inequality-growth relationship, leading to new policy conclusions. A first class of new models concludes that high initial inequality damages growth as it leads to the election of governments that favour redistribution through high marginal tax rates which in turn depress private investment and growth (Alesina and Rodrik, 1994; Persson and Tabellini, 1994), The poorer the median voter relative to the average, the higher the tax rate, and the lower investment and growth.

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[1] For an equal level of current income, the transitory component is higher for rural than urban incomes. As most of the latter is saved, for the same level of total income, rural households save more than urban households.

So, the higher is initial inequality, the stronger is pressure to redistribute. Income redistribution is therefore seen as harmful to growth. The key assumption is that private investment has higher returns than public investment, so raising taxes to finance the latter reduces overall growth.

However, these models are problematic. First, there is no evidence that inequality is associated with redistribution. In fact, high inequality countries are more often than not characterized by below average tax rates and regressive fiscal systems (Addison and Rahman, 2001). Second, the data do not show a negative relation between taxation and growth. If anything there is a positive relation between taxes and growth (Easterly and Rebelo, 1993, Perotti 1996) due to the high returns to well designed public investments in providing public goods. Finally, until recently, most developing and transitional countries were not formal democracies holding elections, a fact that makes them unsuitable for inclusion in empirical tests.

3.3 Capital market imperfections

In this class of new models, high initial inequality harms growth as it leads to slow human capital formation and locks investments by the rich in low return activities. When capital markets are imperfect, and investments in industry are lumpy, productive opportunities tend to vary in line with the wealth distribution. With a limited ability to borrow, the poor cannot finance education, buy a plot of land or open a business. Hence, they cannot realise their full productive potential.

Such an outcome is not only inequitable, it is also inefficient. If production functions are non-convex (i.e. if there are decreasing returns to investments), the absence of a deep and well connected capital market concentrates investment in the hands of the rich and excludes people who would engage in more productive activities. As noted by Aghion et al., (1999: 1622) 'Redistributing wealth from the rich (whose marginal productivity of investment is relatively low, due to decreasing returns to individual capital investment) to the poor (whose marginal productivity of investment is relatively high, but who cannot invest more than their limited endowments), would enhance aggregate productivity and therefore growth'. Thus, unless the capital (credit and insurance) markets are deepened or the wealthy are taxed to subsidize the public education of the poor, human capital accumulation remains lower than under a more egalitarian regime and investment remains concentrated in low return activities.

3.4 Social conflicts and political instability

Another strand of the new literature argues that high initial inequality, and in particular polarization, may force the poor into street protests, violent rioting and other actions that cause uncertainty among investors, reduce the certainty of property rights, and increase transaction costs (Venieris and Gupta, 1986). These models identify a negative *linear* relation between initial asset inequality and growth. However, as Rodriguez (2000) notes, the theoretical links between high inequality and political instability are somewhat indeterminate. Although high inequality may push the poor into violence, at the same time it provides the rich with greater resources to repress them.

In extreme cases, social tensions lead to conflicts which cause large drops in output, the destruction of infrastructure and large human capital losses through death, displacement or

forced migration. The number of domestic conflicts has risen steadily between 1980 and 1995 but started to drop mildly since then. When social polarization is profound and the institutions of conflict management are weak, external shocks (attributable, for example, to trade losses or financial contagion) are magnified by the distributional conflicts triggered in their wake. Conflicts may arise in particular when 'horizontal inequality' (i.e. inequality between religious, ethnic and social groups) is affected perceptibly because, for instance, of the concentration of public subsidies or privatized assets in the hands of few interest groups, thus altering a pre-existing and precarious political equilibrium (Nazfiger et al., 1999).

In contrast to other classes of inequality models (in which growth might be less rapid in relation to an abstract counterfactual), in this group of models the rich face clear and easily monitorable losses and may thus have an incentive to secure their property rights and reduce instability and the associated transactions costs by redistributing land and educational opportunities and introducing minimum wages. These redistributive measures may indeed be less costly and more pro-growth than the instability of high inequality. However, such strategies are seldom observed in practice, and rebellion is the more common outcome in high inequality societies (Central America, for example).

3.5 Policy distortions and government failure

High asset and income inequality may also reduce the scope for conducting a rational economic policy. High assets and income inequality may infact lead to the adoption of unsustainable macroeconomic policies by impeding other avenues for redistribution such as land reform, taxation and subsidized human capital formation. In Peron's Argentina and Garcia's Peru, governments sought to reduce social tensions through populist fiscal expansion; the resulting inflation and the crowding out of private investment both undermined growth. High inequality countries are also more likely to default on their international debts than countries with more egalitarian income distributions, because they are politically impelled to borrow rather than to tax. Again, Latin America in the 1980s provides examples.

Alesina and Drazen (1993) suggest also that high inequality reduces the support for fundamental growth enhancing structural change needed to resume growth. In an economy characterized by two antagonistic groups, each of them may decide to delay the stabilization in the hope that the other group will accept to carry most of the stabilization cost, even if the aggregate gains outweigh the aggregate losses. The authors show that the time that elapses before the stabilization is actually carried out by the loosing group increases together with the inequality in the distribution of the gains of the reforms. A more equitable initial distribution of income and assets is likely to lead to a more egalitarian distribution of the gains and losses of stabilization, thus avoiding delays in stabilization. Rodrik (1998) confirms these conclusions by providing evidence that societies characterized by high inequality and poor institutions of conflict management (such as social insurance and efficient government institutions) are more likely to have experienced growth collapses in the 1980s.

Finally, Birdsall (2000) emphasizes that high inequality undermines good public policy, leads to government failure and inhibits growth. First, high inequality may reduces access to a range of public services—such as law and order, the certainty of contracts and property

rights, human capital formation. These are essential for growth and, in some cases, help to reduce market failures (for example the public provision of education). As social distance widens, the disparity of interests among social groups increases, taxation and the provision of education and health services decline, residential segregation rises and political participation and the efficacy of government institutions diminish. Second, high inequality also erodes social cohesion, an essential factor in promoting the diffusion of information, in exerting social control and in reducing transaction costs. Several of these effects emerged in the countries in transition affected by rapid rises in social stratification. In these countries, rapid increases in assets and income inequality strengthened the ability of the new élites to resist taxation (Russia is a good example of this phenomenon) thus reducing the ability of the state to ensure law and order, provide basic social services, and sustain the quality of government institutions.
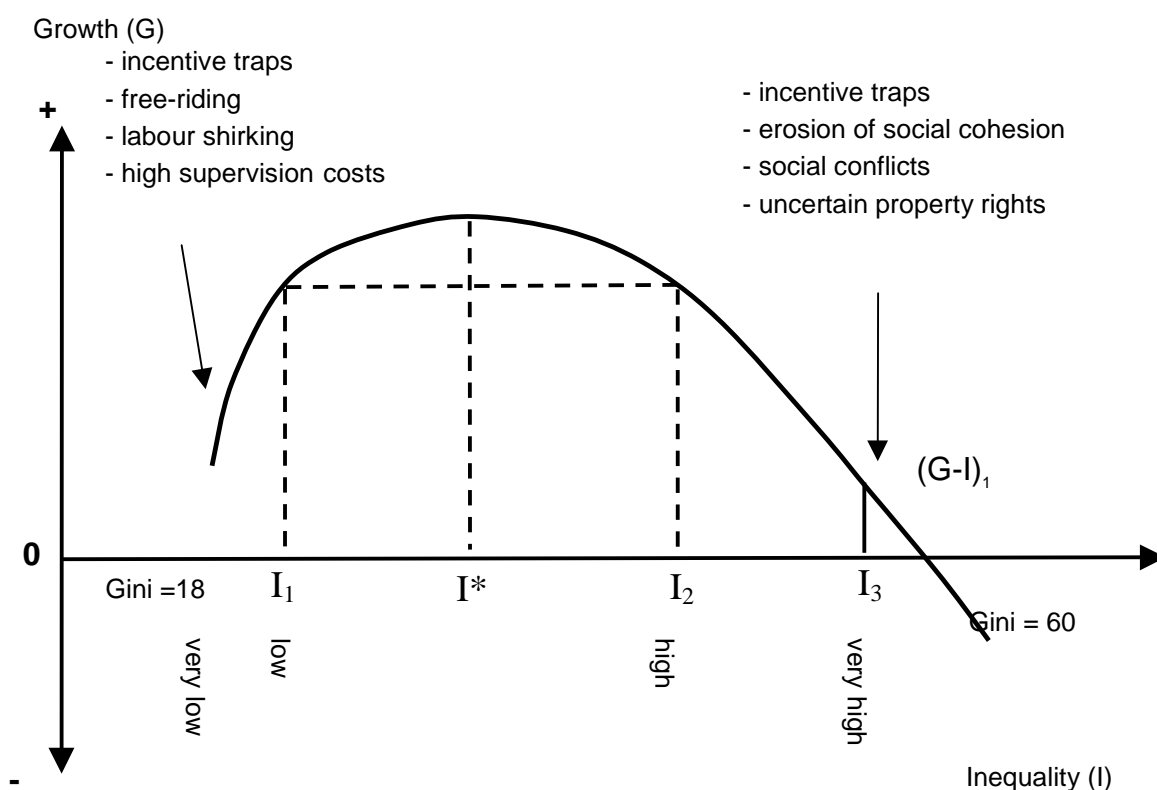
4. A new analytical framework

The previous section has reviewed the recent models of the relation between inequality and growth and shown that, with the exception of post-Keynesian theories, this relation tends to be *monotonically negative;* i.e. that higher inequality inhibits growth. Of these models, the new political economy ones have been less successfully tested while those on political instability and government failure may require further formal and empirical refinement. It is also important to stress that most of these models have been tested on cross–section data and that panel studies (which are rare) tend to reach the opposite conclusion, i.e. that more inequality leads to higher growth. For instance, Forbes (2000) making use of panel data and using a estimation technique different from that generally used so far identifies a significant *monotonically positive* linear relation between inequality and growth. The paper, however, does not provide any theoretical explanation of the empirical results found. More generally, the way the panels are constructed tends to bias the sample towards high income countries (which have longer time series and better data overall) and might be affected by considerable measurement error, as the quality and coverage of the surveys change considerably over time. Finally, the apparent divergence between the results of cross sections versus panels may be explained by the fact that the panel estimates capture a short run positive effect of inequality on growth, which is reversed in the long run.

As mentioned, however, both cross sectional and panel analysis identify linear monotonic relationships between inequality and growth. Both linearity and monotonicity are however counterintuitive from a theoretical point of view. It is difficult to believe that a shift in the Gini coefficient from, say, 0.20 to 0.25 will have the same impact on economic performance than an increase from 0.50 to 0.55. Likewise, the sign of the relation between inequality and growth may change at substantially different levels of inequality.

The approach proposed in this paper differs in two ways from those described above: first, at any one point in time, the relationship between economic growth and income inequality is unlikely to be linear. Indeed, the relation is more likely to be concave, taking a form described in Figure 2 (see also Figure 1 in Benabou, 1996). Banerjee and Duflo (2001) arrive at similar conclusions about the concave shape of the inequality-growth relation though their argument.

Figure 2
Nonlinear relation between inequality and growth

Growth (G)
- incentive traps
- free-riding
- labour shirking
- high supervision costs

- incentive traps
- erosion of social cohesion
- social conflicts
- uncertain property rights

$(G-I)_1$

0

Gini =18 I_1 I^* I_2 I_3 Gini = 60

very low   low   high   very high

Inequality (I)

In our approach, 'too low' or 'too high' inequality can be detrimental to growth, which remains broadly invariant within a given efficiency range. We will also argue that for each country there is likely to be a level (or range) of inequality that maximises the growth rate, but that this will vary across countries depending on structural factors such as their endowment of mineral resources or share of agriculture in total output. Two main arguments are given for this. First, let us assume a latent 'natural distribution of income rewards'. Under conditions of equal opportunities, such a latent distribution depends entirely on talent, effort and merit. (Such a distribution might take into account also a socially accepted norm about the under-remuneration of the very talented ones and the over-remuneration of the less talented but not of the lazy ones). Such a latent distribution is unobserved by the policymaker but economic agents perceive whether their position in the observed distribution is 'fair' i.e. if it broadly corresponds (or not) to their relative effort, talent and merit.

The observed distribution of income often varies significantly from the latent one due to market distortions or social norms. When the observed distribution is characterized by very low levels of income inequality, i.e. when the wage and self-employment income distribution is too compressed and does not adequately reflect different endowments of talent, merit and effort, growth may be inhibited by loss of individual work incentives, accompanied by attempts at labour shirking, free-riding and the search for a 'quiet working

life'. Soviet-type pay arrangements, for instance, appear to have caused serious work disincentives, growing risk aversion, erosion of work discipline and poor performance among both workers and managers. In Soviet-type firms, the relationship between the wage rate on the one side and efforts, skill levels and prior investments of each workers in human capital was weak or non-existent. The resulting earnings distribution was therefore generally much more compressed than the one in the market economies or the latent wage distribution. As noted by Phelps-Brown, ' ... the [lower wage dispersion of socialist economies]..... arises mainly from a lower rise of income above the median, that is, broadly: the more skilled manual occupations and still more the higher clerical, the professional and the administrative, are paid less than in the West relatively to the bulk of the manual workers' (1988: 303-4). Loss of incentives can also occur if workers are subject to very high marginal tax rates (either via the state or by within-community mechanisms), the depressing effect on growth of macro-economic instability, or some combination of these mechanisms. Growth clearly suffers sharply if inequality falls below I_1 in Figure 2.

Conversely, as inequality rises there comes a point I^* at which the growth-inequality relationship starts to turn negative and, from inequality level I_2 onwards, growth turns sharply negative. Also in this case, the observed income distribution of income deviates markedly from the latent distribution of rewards based on talent, merit and effort. This is mainly the case because of the inequitable functioning of the labour, capital and product markets, or because of unbalanced access to education, land, credit and insurance and, in extreme cases, by sheer discrimination and segregation. This situation is also a cause of important erosion of incentives which may lead to output contraction among the self-employed, and to shirking and free-riding among dependent workers. In all cases where the output of these workers is not easily monitorable (as in agriculture and most personal services), lack of incentives entails the introduction of costly labour-monitoring arrangements which further depress economic efficiency. The empirical literature offers a number of microeconomic examples of such negative incentive effects. In a labour surplus agriculture, for instance, high land concentration is generally associated with an inefficient use of labour, shirking by agricultural labourers, high monitoring and supervision costs and, as a result of all this, lower land yields. As a result, yields per hectare and total factor productivity are higher among the smallholders who use larger amounts of family labour and home produced inputs per hectare than large farms that rely on salaried labour, and face low or zero shirking and supervision costs (Cornia, 1985).

A high degree of asset concentration and landlessness may force the poor to behave in ways that are not in their long-term economic interests, thereby reducing growth. The problems of over exploitation of forests, land erosion, and overgrazing observed in many developing countries are often the result of an acute wealth concentration. With few employment opportunities and limited access to good land, the poor are forced onto ecologically fragile lands, such as mountain slopes or low rainfall areas, and their productivity falls as these sparse natural resources are mined out.

Except in industrial firms characterised by substantial economies of scale, poor work incentives due to wages below or near subsistence or large differentials not explained by differences in endowments in human capital, personal ability and effort could erode work incentives, increase shirking and supervision costs and reduce efficiency. This relation
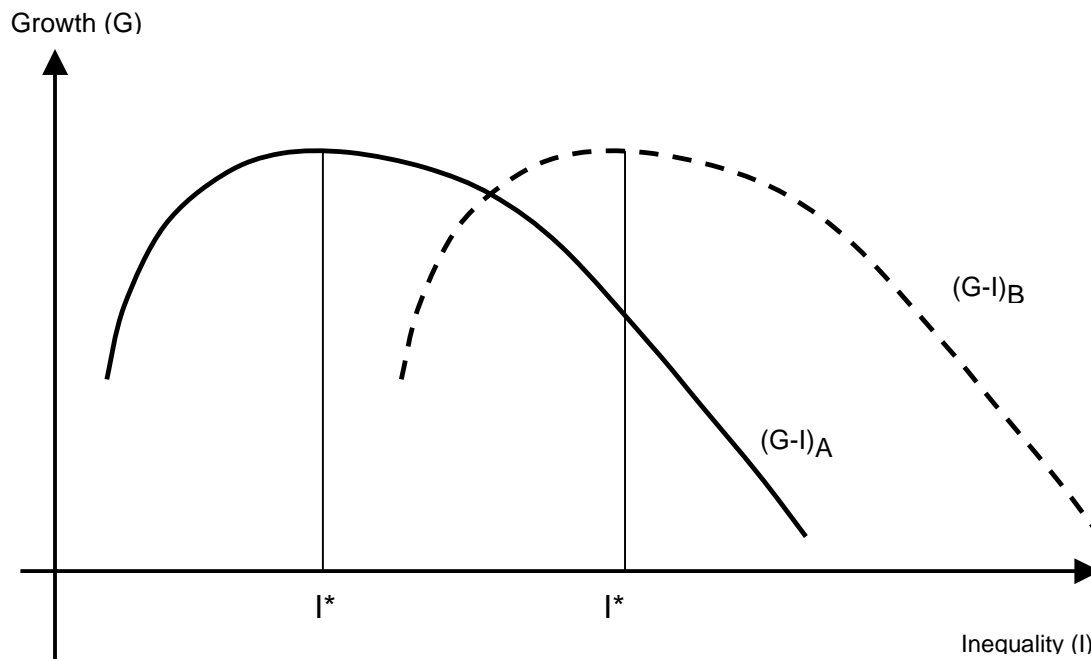
varies with firm size and across types of property rights. Large industrial firms relying on salaried workers generally face higher shirking and supervision costs than small and medium size firms where the distribution of rewards may be better aligned with that based on effort and talent. In the latter, as well as in workers co-operatives which rely on peer supervision to avoid free riding, incentive structures are generally better and labour shirking is lower. But even these enterprises are not immune by incentive problems. For instance, Banerjee et al. (1998, cited in Banerjee and Duflo, 2001) show, using panel data from sugar cooperatives in India, that the most unequal cooperatives are the least productive, with an output difference of more than 50 percent between the most and least egalitarian cooperatives.

At a very high level of inequality, the erosion of 'work incentives' described above is often accompanied also by the erosion of 'the social contract' as seen in Section 3 when discussing the 'social conflicts models'. These two explanations are not theoretically incompatible. When the gap between the rich and the poor widens, rentseeking, predatory and criminal activities rise, and the rich often increase their expropriation of the poor. This increases transaction costs for business security and contract enforcement, while eroding the security of property rights. For instance, the literature suggests a strong relation between inequality and unemployment on the one side and the crime rate (homicide rate in particular) on the other. Recorded homicide rates and crimes against the property have recently increased sharply in the economies with traditionally high levels of inequality (Latin America and Sub-Saharan Africa) or where inequality has risen rapidly during the last decade. Fajnzylber et al., (1999) find evidence to suggest that income inequality is consistently associated with violence levels across countries. In turn, Bourguignon (1998) and others have measured the growing economic cost imposed on society by such violence in terms of lives lost, medical costs and resources diverted from productive uses to prevent and repress criminal activities.

The shape of the inequality-growth relationship (G-I) will vary across countries depending upon their natural resource endowment, the history (including colonial history) of past policy decisions (and thus the accumulation and sectoral distribution of physical and human capital) and other factors. Different groups of countries (A and B in Figure 3, for instance) will have different $(I-G)_A$ and $(I-G)_B$ curves and different I_A^* and I_B^* inversion points. For instance, in countries with large mineral resources the (I-G) curve tends to shift to the right of the x-axis when compared with a manufacturing exporter. This implies that countries have different development possibilities and that some could more easily reduce poverty than others if their political processes allow.

Countries with a highly unequal income distribution that wish to accelerate poverty reduction while avoiding any income redistribution must accelerate their (distributionally neutral) growth rate. This will imply shifting upwards the I-G curve (Figure 4). Stepping on the accelerator in this way reduces poverty at a faster rate (mean income rises at a faster rate). Of course such a rise in growth may not be achievable due to lack of international finance, trade barriers, and environmental damage. These are less of a constraint to poverty reduction when redistribution is permitted, since the growth rate necessary to achieve a given target for poverty reduction does not have to be as high if redistribution is ruled out. In a world in which such growth barriers exist—for example an imperfect international credit market and Northern protectionism—redistribution is critical.
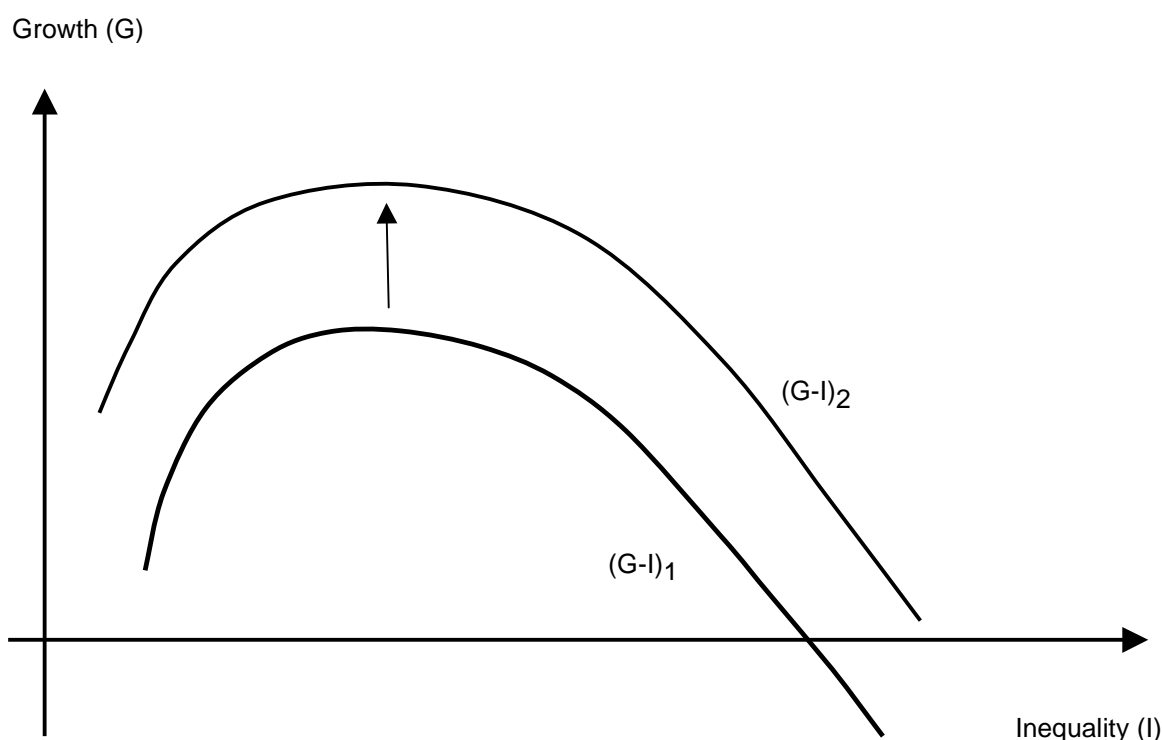
13

Figure 3
nonlinear inequality-growth (I-G) relations in countries A and B

Let us return to Figure 2 for a few further policy considerations. First, if inequality falls below I_1, a moderate surge in inequality can improve incentives, accelerate growth and reduce poverty incidence. But an inequality level lower than I_1 might be chosen if society values lower inequality *per se*. Second, if the I-G curve is correctly represented then, given the attainable growth rate of output compatible with the macroeconomic and environmental constraints, any country that intends to maximize poverty reduction should choose a lower level of inequality—I_1 over I_2 for example (Figure 2). I_1 is associated with a higher poverty alleviation elasticity than that of I_2. The latter will be chosen only if some class, ethnic group, or dictator prefers this distribution and is willing to sacrifice faster poverty reduction to achieve it (an all too common outcome).

A key issue is the identification of specific vectors of policies associated with these two inequality levels. Third, in the interval I_1-I^*, the inequality level that optimises poverty reduction varies in line with the real shape of the curve. Further increases in inequality past I_1 are efficient as long as $\partial G / \partial I > \partial PHR / \partial I$, i.e the point at which the growth enhancing effect of higher inequality is greater than the decline in the poverty alleviation elasticity of growth due to a rise in inequality. Policy wise it is therefore necessary to identify for each group of countries an 'efficient inequality range' within which both growth and poverty reduction are maximised. It is equally necessary to identify policies which can help keep inequality within the desired range (see section VI). Fourth, beyond I_2 there is both growth collapse and spreading poverty. Zaire under Mobutu's dictatorship, the apartheid system in South Africa and the *latifundistas* of Brazil chose a level of inequality well beyond I_3—leading to stagnation, growth collapse and persistent poverty.

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Figure 4
Alternative poverty reduction patterns in a given country

Growth (G)

$(G-I)_2$

$(G-I)_1$

Inequality (I)

5. An empirical analysis of the inequality-growth-poverty relationship

The review in Parts 3 and 4 indicates that of the various inequality-growth models, the one which we consider the most appropriate is that which posits an asymmetric concave relation between inequality and growth explained by work incentives and social cohesion. Its policy implications are fundamentally different from those implicit in most other explanations: in this model, at high levels of inequality, the rich have a strong incentive to reduce asset inequality, increase public spending on education, and provide better work incentives; i.e. measures which would entail changes in the current factoral distribution of income and in the level of taxation. Failure to do so would increase supervision, transaction, security and enforcement costs and could severely erode property rights.

Below we present an attempt at testing the inequality-growth relation discussed above. In this regard, Table 5 describes the transition matrix of the Gini coefficients for 73 countries between 1980 and the latest available year. It suggests that the Asian countries and the countries of Western and Central Europe (that performed comparatively better) experienced a moderate increase in inequality from low-moderate levels. In turn, the countries of the former Soviet Union (whose output declined sharply over the last decade) witnessed the largest increases in Gini coefficients starting however from low levels. And several Latin

American and African countries (which broadly stagnated or recorded only minimal growth) experienced moderate inequality increases from very high levels.

Table 5
Transition matrix of Gini coefficients for 73 countries between 1980 and the latest available year (mid-to-late 1990s)

Latest Gini 1980 Gini	<25	25.0 - 29.9	30.0- 34.9	35.0- 39.9	40.0- 44.9	45.0- 49.9	50.0- 59.9	>60.0	Total
<25	TTT O	TT O	TTTT O	TTTT	T	T			18
25.0-29.9		T OOOOO	TT R		TT O	T			13
30.0-34.9		R	OOO RR	OO R T	OO R				13
35.0-39.9				RRRR 00	RR L	L	R		11
40.0-44.9				RR	RR	LL	R LLL		10
45.0-49.9				R	R		R L		4
50.0-59.9						R	LL	L	4
Total	4	10	13	17	13	6	9	1	73

Source: Cornia with Kiiski (2001).

Notes: T = transition economies, O = old OECD, L = Latin America, R = Others. Gini coefficients have been harmonized in terms of net income terms by adding 1 extra point to expenditure data and subtracting 5.5 points to gross income data.

We have therefore regressed by means of OLS with heteroschedastic correction the point-to point changes in 73 Gini coefficients in Table 5 for developed, developing and transitional countries for developed, developing and transitional countries over the period 1980-98 (or most recent year) ($\Delta Gini_{80-98}$) on the average GDP growth rate for this period (G_{80-98}). The data were interpolated using both a linear function (numerical results not shown) and a quadratic function. As seen in Figure 5, the latter appears to fit far better the data than the former which, in any case, also finds a negative relation between inequality and growth. The regression identifies a concave relation statistically significant in $(\Delta Gini_{80-98})^2$ and explains a satisfactory 57 percent of the total variance in growth performance. The linear term $\Delta Gini_{80-98}$, in contrast, is equal to zero.
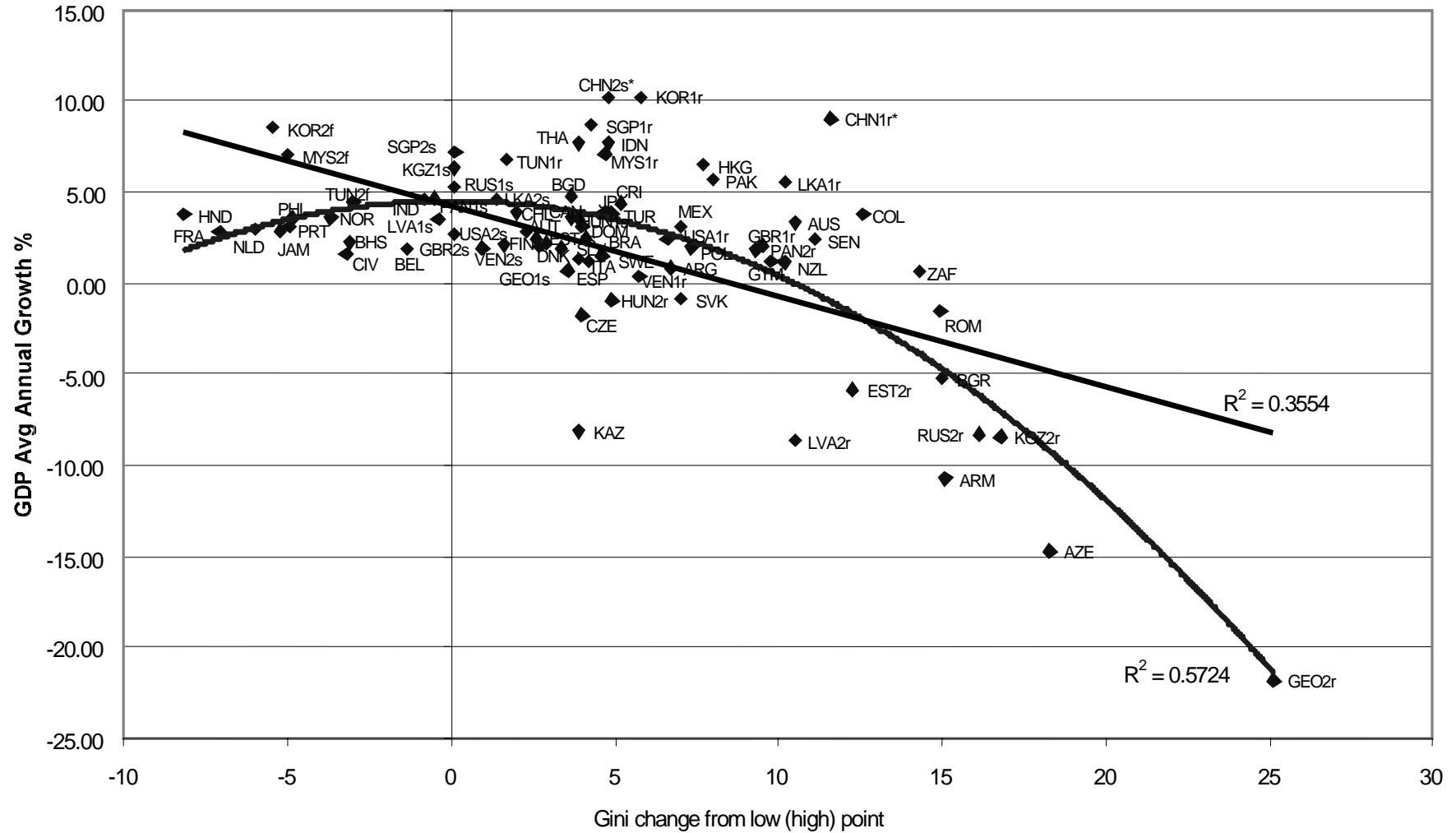
$$G_{80-98} = 4.52 \ (11.67) - 0.0004 \ (0.00) \ \Delta Gini_{80-98} – 0.410 \ (8.69) \ (\Delta Gini_{80-98})^2$$
R-squared = 0.57, nobs =73

This estimate suggests that *on average* the countries that experienced large increases in income inequality (from low or high initial levels) were likely to have suffered, *ceteris paribus*, a slowdown in growth. There were, of course, important exceptions to this rule, as illustrated by the case of outliers such as Kazakistan and China. In the 1990s, for instance, China experienced fast growth despite a perceptible surge in inequality. The latter however

Figure 5
Relation between changes in Gini coefficients over 1980 + 1998 (or more recent year) and changes in growth performance over same period

was due to an important extent to a rise in spatial inequality between the interior and the coastal areas and between the urban and the rural areas which is less likely to erode incentives and social cohesion over the medium term as compared to the case in which the overall increase was due to a surge in social inequality within all main areas and regions. Figure 5 also shows that the countries which either experienced a small increase or decrease in inequality saw their growth rate only marginally affected. Only very few countries seem to have experienced a modest decline in growth in correspondence with falls in Gini coefficients of 5-10 points (generally from low levels).

Inspection of Figure 5 indicates however that the concave shape of the relation is due to a good extent to the behaviour of the countries in transition (see the datapoints on the lower right part of the chart) which—because of the one-off systemic changes entailed by the transition—recorded much larger falls in GDP than other countries experiencing similar rises in Gini coefficients. To control for this and similar systemic shocks—such as the impact of the 1980s debt crisis in Latin America—we have expressed the average change in GDP over 1980-98 as an index number (with 1980 GDP =100) and divided the value of the national index numbers so obtained for the regional average for the same indicator. We obtained in this way a standardized measure of growth (SG_{8-98}) which takes into account the varying country exposures to large systemic shocks. We then repeated the regression using the same OLS procedure with heteroschedasticity correction, and found an overall improvement in the estimate of the inequality-growth relation. To start with, the sign of the variable $\Delta Ggini_{80-98}$ has now the correct sign and its parameter is significant at the 83 percent level. In addition, the parameter of the quadratic term declined substantially in relation to the prior formulation, a fact that reduces the steepness of the right arm of the function. In contrast, the fit of the data worsened visibly.

$$SG_{80-98} = 1.040 \ (42.37\ ) + 0.008 \ (1.38)\Delta Gini_{80-98} - 0.0012 \ (3.69) \ (\Delta Gini_{80-98})^2$$
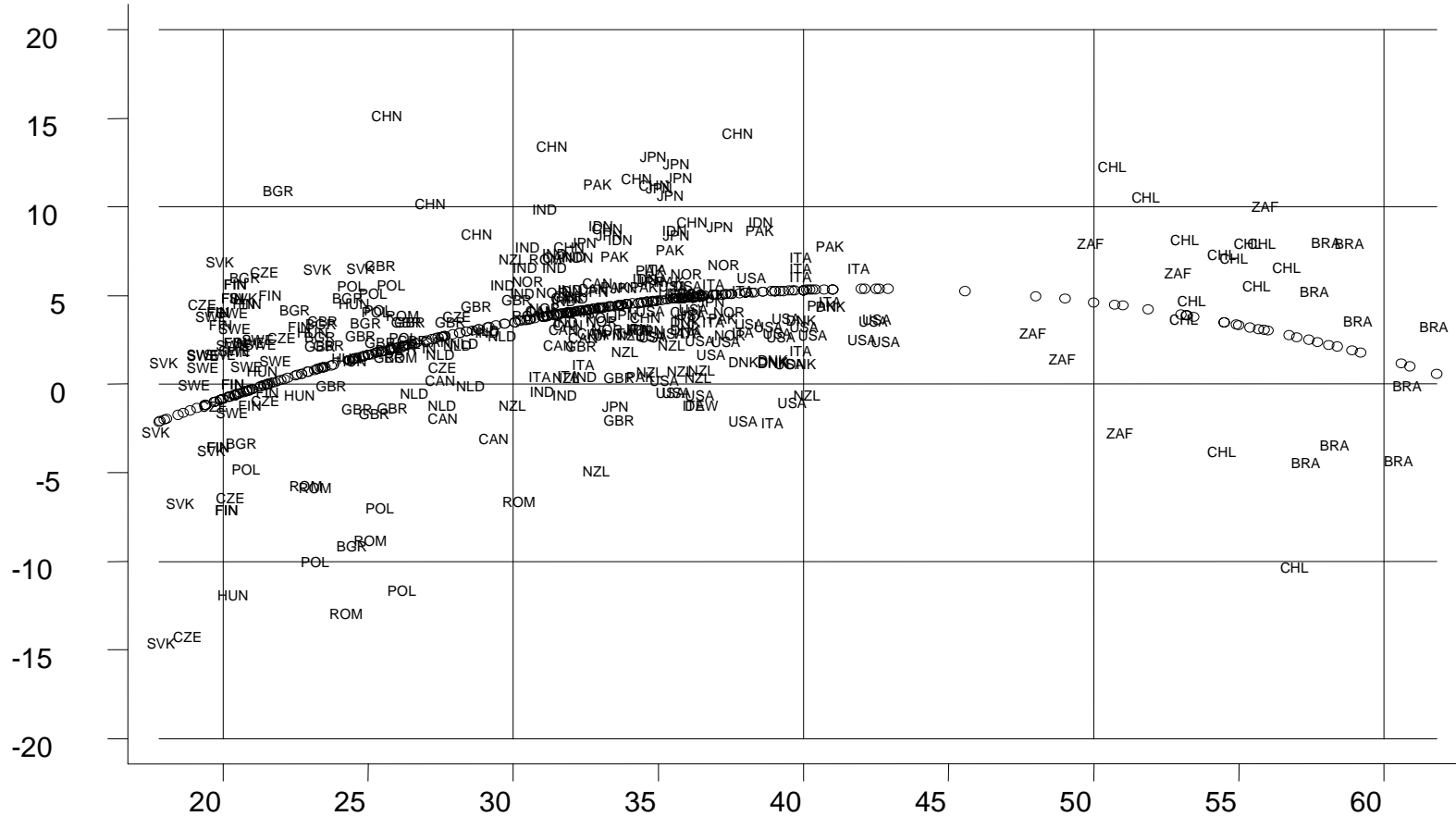R-squared = 0.18, nobs =78

Even after these corrections, our model still suffers from a number of specification and estimation problems. First of all, equal increases in inequality from very different initial levels of Gini are likely, *ex ante*, to generate different impacts. For instance, an increase of 10 points from an initial Gini level of 50 is likely to have a greater impact on incentives, social stability and economic performance than a similar increase from an initial Gini of 30, a fact that cannot be captured by the above specifications. Solution of this problem requires adding the initial Gini coefficients to the regression or expressing the independent variable in levels. The second problem concerns the determination of cauzation, a typical problem when dealing with synchronous sectional data. This entails lagging the dependent variable, a problem that could not be solved given the cross-sectional, point-to-point nature of the data available.

To solve part of these problem we tested the hypothesis about the concavity of the relation between inequality and growth on a panel of 325 observations for 12 developed nations (Canada, Denmark, Finland, Italy, Japan, Netherlands, New Zealand, Norway, Sweden, UK, USA,), 6 transition economies (Bulgaria, Czech Republic, Hungary, Poland, Romania and Slovakia) and 7 of the largest developing countries (Brazil, Chile, China, India, Pakistan, South Africa and South Korea) for which at least 7 well spaced observations covering the years 1960-98 were available in the WIID database. Several estimation techniques were utilized to fit the relation $G_t = a + bGini_t - cGini_t^2$. All of them yielded similar and

Figure 6

Relationship between annual percentage growth of GDP, constant 1995 US$ and the Gini coefficient for a sample of WIID countries

Note: the high quality sample includes 325 observations on 12 developed, 6 transition, and 7 developing countries for various years between 1960-98. The sample was chosen to reflect the average inequality and growth performance relation over the business cycle of each country by including only those series currently available in WIID that have 7 observations or more. (We still attempt to find more series to include.) A combination of series was deemed appropriate for Finland and United States for which ambiguity is minimal. Several methods of regressions were run with similar, significant trend coefficients in all. The figure shows a GEE panel data estimator with country-specific effects accounting for different average growth levels and gini concepts. The correlation within each country is estimated as 0.18. The country-specific heteroskedasticity about the respective mean at the ends of the gini range is accounted by the coutry-specific effect and robust standard error estimator. In addition, the model is relatively robust to misspecification of the covariance matrix (e.g. Diggle, Liang, and Zeger 1994), which is an important issue with inequality datasets.

significant coefficients (not shown). Figure 6 presents the scatterplot of the above relation fitted with the estimate of such quadratic function computed through a GEE panel data estimator with country-specific effects accounting for different average growth levels and Gini concepts. This estimation procedure is relatively robust to misspecification of the covariance matrix, an important issue when dealing with inequality data sets. The concave relation depicted in Figure 6 shows that the growth rate of GDP rises substantially (up to 5 points) when the Gini coefficient increases between 15 and 30. Within the range 35-45 of the Gini coefficient the rate of growth is broadly invariant at around 5 percent a year. Between 45 and 50 Gini points the GDP growth rate declined by about one percentage point, while another 4 percentage points of GDP growth vanished by the time the Gini coefficient reaches 60.

Similar results were arrived at by Barro (2000) who, after imposing all the necessary controls, found a significant *negative* relation between inequality and growth in countries with a GDP per capita of less than 2070 (in 1985 US dollars) and a significant *positive* relation in countries with a GDP per capita higher than the threshold. The countries covered by the first relation broadly corresponds to the high inequality countries in Figure 6 (for which the relation is clearly negative) while the second corresponds to the low inequality countries in Figure 6 (for which an increase in inequality is pro-growth).

The results in Figure 6 provide some support to the hypothesis that the relation between inequality and growth is concave, but a number of essential improvements are still necessary. Among them: the inclusion of controls for convergence in GDP and other unobserved effects correlated with GDP/c the level of the GDP per capita at the beginning of the period (GDP/c_0); the introduction of a dummy variable for the FSU countries (FSU dummy) that, as noted, can distort the estimates; the lagging of the dependent variable to solve the problem of the direction of cauzation; the averaging of the variables over quinquennial periods to reduce noise; and the broadening of the sample to include a greater number of developing countries. Finally and most importantly, the model needs to test explicitly the specific incentives and social mechanisms (wage structures, price ratios, social cohesion and so on) behind our hypothetical concave relation I-G. Such detailed tests require however the availability of microdatasets and long time series on inequality for the individual countries.

All in all, while the above empirical tests do not provide conclusive evidence of the validity of the concave relation between inequality and growth, the results presented nevertheless provide an encouragement to dig further in this direction. A more successful testing of this relation in fact would substantially modify the political economy in this crucial area.

6. Policies for egalitarian growth and poverty reduction

Many variables affect the distribution of income and the incidence of poverty. It is not our intention to review them all here. Instead, we confine ourselves to emphasising the continuing importance of four 'traditional' causes of high and rising inequality, and identifying five policies for addressing the 'new' causes of rising inequality that have emerged over the last two decades, and which are associated with globalization and liberalization (Cornia with Kiiski 2001 review the importance of the 'old' and 'new' causes of inequality).

6.1 Reversing traditional causes of rising inequality

Our earlier discussion highlighted the importance of avoiding two traps: insufficient incentives, associated with overly compressed wage-differentials (the story of the former Soviet Union) and, at the other end of the scale, social conflict associated with high and rising income and asset inequality.

Implement agrarian reform in an incentive compatible and power compatible manner

The redistribution of large farms, plantations and state-run farms to the landless and to poor smallholders can improve both equity and efficiency (as demonstrated by land reforms in Kerala and East Asia). Moreover, wage inequality is high in countries with a large agricultural sector and very unequal land ownership; unskilled wages are driven down by the excess supply of landless labourers, a situation that is reversed by land reform (Iglesias 1998: 17). So well designed land reform will reinforce, rather than reduce, economic incentives and is therefore conducive to both higher growth and more poverty reduction.

But progress in redistributing land in Central and South America has, with a few exceptions, been disappointingly slow—one third of rural households remain landless (Jazairy et al., 1992). Land reform in southern Africa is similarly slow, despite rising tensions. Market and tax incentives to trigger a market-based redistribution of land are therefore urgent. Land reform should also be 'incentive compatible', including the removal of insurance and credit market failures which penalise smallholders, thereby raising their rate of return from their access to new land (Binswanger and Deininger, 1997). At present land taxes are low or non-existent in much of the developing world. Yet, large landowners often benefit disproportionately from public investment in rural infrastructure, together with the supply of water and power at less than its economic cost (evident in Latin America as well as in southern Africa). In effect they receive large net subsidies, while smallholders are often taxed.

Introducing progressive land taxes would reduce the net subsidy to large landowners as well as the state's current reliance on regressive indirect taxes. Land is a reasonable indicator of wealth and it is visible, making it easier to tax than financial wealth (although accounting for differences in land quality for tax purposes can be problematic and good land records are essential). Since large farmers typically underuse their land—which can be sold to pay taxes—the output effect of well administered land taxes need not be large. Land released into the market can be purchased by community funds for the poor. Part of the tax revenue must fund the infrastructure necessary to make resettlement schemes work.

Build human capital by refocusing public spending and mobilising more revenue through progressive taxation.

The present distribution of public spending and taxation in many countries is neither conducive to growth or poverty reduction. The fiscal system often distorts economic incentives, and leads to an excessively high level of income inequality, damaging both growth and poverty reduction.

The non-poor disproportionately benefit from public spending, particularly in Latin America and SSA, their benefits far exceeding their taxes (van de Walle, 1998).

Refocusing public spending on the poor (on basic health care, primary education, and safe water and sanitation) and mobilising more revenue to fund basic services, both require better state capacity in addition to political will. In Uganda only one third of every dollar spent on primary education reaches schools as a result of budgeting and planning problems, despite the government's pro-poor commitment (Ablo and Reinikka, 1998).

Similarly, tax systems need institutional investment to provide the revenues to subsidize human capital formation among the poor. Archaic tax institutions lead to substantial avoidance and evasion of income and wealth taxes (land taxes, urban property taxes, and capital-gains taxes of financial rents). Such taxes account for a mere 2.6 percent of total tax revenue in developing countries as a whole (Burgess and Stern, 1993: 782). This forces an over-reliance on regressive indirect taxes and user charges—a distortion encouraged by short-term IMF programmes that impose unduly tight fiscal-deficit targets, and premature capital-account liberalization (which facilitates tax evasion). Effective tax institutions lead to lower income inequality, but high and rising inequality impedes their construction. The wealthy block reform and corrupt tax authorities, and in doing so undermine support for taxation among middle and low income groups, who rightly perceive the tax system to be unfair—an effect that is very evident in EE-FSU (Pirttilä, 1999). Rising inequality is unlikely to be reversed in Latin America or EE-FSU, without progressive taxation to meet the effective demand of the poor for better human capital.

Correct market failures, in particular in the credit and insurance markets

Well designed micro-credit programmes are doing much to raise the incomes of the poor, especially among rural women (Mosley and Hulme, 1998). Less attention has been given to insurance (although improving micro-credit has some insurance characteristics). The development of insurance markets for smallholders and micro-entrepreneurs would enable them to insure against household-specific shocks (death of a family member, for example) and covariant shocks affecting the entire community (drought and floods, for example). In poor countries, both types of formal insurance are unavailable to most people. Insurers are few, they possess imperfect information about risk, and gathering more information is costly and unprofitable when average household income is low. Consequently, specific and covariant shocks result in distressed asset-sales, and increased inequality.

Reduce regional and ethnic inequalities that cause poverty and social conflict

Racial and ethnic bias has been prevalent in public spending and public employment; Guatemala, pre-independence Namibia, and apartheid South Africa are just three examples. This has exacerbated horizontal inequality, leading to adverse growth effects through social conflict. This has in turn contributed to both localised violence (Nigeria's Delta region is a current example) and genocide (on Rwanda see Uvin, 1996).

Large countries often combine a well developed modern sector with remote and very poor backward areas, often inhabited by people of a specific ethnic origin (as in Brazil's North-East or Xinkiang in China). In Mexico, 80 percent of the indigenous population is poor, while only 18 percent of Caucasians are poor (Psacharopoulos and Patrinos, 1994). Infrastructure and education investment in poor regions is generally more effective in reducing regional inequality than welfare transfers or fiscal incentives.

6.2 New causes of inequality

Some of the recently observed rise in inequality is due to the decompression of wage-differentials, and the restoration of incentives in both developing and transition economies. But much is due to the way in which reforms have been conducted, in particular stabilization programmes that have disproportionately reduced the incomes of the poor and privatization programmes that have transferred assets to the non-poor on favourable terms. The resulting rise in inequality endangers social peace, and will therefore be destructive of both growth and poverty reduction.

Redesign stabilization to avoid sharp demand compression and protect pro-poor public spending

Stabilization can be undertaken in different ways, some of which are more protective of the poor than others—for example reducing the fiscal deficit by mobilising more public revenue to maintain pro-poor public spending. The sharp demand compression undertaken under orthodox programmes to reduce inflation rapidly to single digits has no positive growth effect—indeed the cross-country evidence shows that driving inflation below 40 percent has no discernible benefit for growth (Bruno and Easterly, 1998). But such sharp stabilization does adversely affect income inequality and poverty in developing countries where wages are downwardly flexible (in contrast to real wage stickiness in developed countries) and social safety nets are often weak or non-existent. Wages therefore fall faster than GDP per capita and profits, the wage share declines and the inequality of the size distribution of income increases. In their country sample, Bourguignon and Morisson (1992) found evidence of a disequalizing trend in all the countries that had undertaken stabilization and structural adjustment programmes, with the exception of Malaysia.

Invest in basic and technical education to raise the supply of skilled labour and thus spread the benefits of trade liberalization and technology investment more widely

Globalization, and the spread of new technologies (especially in IT), has made education *the* key instrument for development. Latin America (and South Africa) must emulate, and surpass, East Asia's success in human capital investment if they wish to achieve global competitiveness and pro-poor growth—but they will not achieve such investment without progressive revenue mobilization to increase the public funding of education. Without such public investment, wage-inequality will remain high, reflecting the concentration of the returns to education among a narrow band of the population, that can finance its human capital investment through private means.

Traditionally, openness to trade was held to reduce inequality; the Stolper-Samuelson theorem predicts that trade liberalization favours the most abundant factor, which is unskilled labour in developing countries. And, the rapid egalitarian growth of East Asia over the last 30 years seemed to bear this out. Bourguignon and Morisson (1992) found that the phased removal of trade protection is likely to improve income distribution.

But the relationship between trade openness and inequality has changed; import liberalization raises the demand for skills and reduces the demand for unskilled labour as the cost of imported technology falls. Wood (1997) argues that trade liberalization increases inequality in countries importing goods intensive in skilled-labour and improves it in countries exporting such goods. Nine case studies from Latin America show that trade

liberalization now favours skilled workers (Robbins, 1996). In Mexico, wage inequality rose sharply after the 1985 trade liberalization, thus reversing a declining trend, although there are clearly other factors at work including declining union strength (Harrison and Hanson, 1999). More generally, evidence for Colombia, Mexico and Taiwan shows that technology investment widens wage-inequality (Tan and Batra, 1997).

Skills are widely distributed in Asia's emerging economies (although Thailand is lagging), but Latin America's underinvestment in primary education limits the gains to the poor from trade and associated technological investment. Moreover, Latin America faces strong competition from the big five low-income countries (Bangladesh, China, India, Indonesia and Pakistan) which account for over half the unskilled workers of the developing world. These countries were largely closed to trade when East Asia began its export-led growth in the 1960s, therefore enjoying an advantage in labour-intensive exports not now available to Latin Americans. Thus, Latin America has shifted increasingly to skill-intensive exports after opening to trade in the 1990s. Its growth in trade therefore has very different implications for poverty and inequality than the historical experience of East Asia.

The last two decades have seen a narrowing of the available menu of policy options. The policies available to East Asia in the 1960s are largely inaccessible to today's developing economies. East Asian export growth was achieved by increasing incentives to exporters (through subsidies) while maintaining import protection. International trade agreements today are much less tolerant of import protection and industrial subsidies than they were in the 1960s. Since the 1980s, most of the opening to trade in Latin America (and elsewhere) has involved import liberalization and cutbacks in export subsidies. The two approaches to opening up are formally equivalent, but they have very different consequences for growth, skill demand and thus inequality and poverty (see Wood, 1997). This is not to argue for a reversion to trade protection and extensive subsidy; in comparison to East Asia the Latin American state proved itself incapable of using these instruments wisely. But it does add even more weight to investment in human capital as a key instrument for growth and poverty reduction.

Reduce the occurrence of financial crises and thereby avoid sharp recession-induced rises in inequality.

Premature financial liberalization, in the context of under-investment in prudential financial regulation, has been the weak point in emerging economies (notably Asia and Latin America), but is also evident in low-income countries (Uganda for example). Financial crises have become more frequent over the last two decades due to an increase in domestic financial liberalization, interacting with increased global capital flows (Stiglitz, 1998a). This led to the proposal (just before the Asian crisis) to change the IMF's mandate to enforce capital-account opening. This was despite the evidence that openness to short-term capital flows combined with weak financial supervision is a recipe for macro-economic and social disaster (Stiglitz, 1999).

Financial crisis has large social costs. Output collapse is especially dangerous in divided societies with large horizontal inequalities, which tend to worsen during crisis—as Indonesia demonstrates. Recession forces the poor to sell their assets and reduces their human capital, thereby lowering the poverty elasticity of long-term growth. Inequality also rises due to the contraction of wage income. Mexico's 1995 crisis contributed to a rise in

the Gini from 42 in the mid 1980s to nearly 50 in the 1990s (WIID), and real wages had not returned to their pre-crisis levels by 1999. More generally, Diwan (1999: 19) finds that the labour share usually falls sharply following a financial crisis, recovering only partially in subsequent years:

> Perhaps because labour is less mobile than capital, it ends up forced to bear a large share of these asset losses (in the sense of transferring parts of its income to another group). There is strong evidence of this happening. Crises are resolved when workers end up bearing large costs that resemble bail-outs of (financial) capital. We estimate that the total losses to labor, from the beginning to the end of a crisis, amounts on average to 20 percentage points of GDP.

The extent of the rise in inequality and poverty also depends on whether social safety nets exist. In Latin America and Asia financial crises raised inequality in 73 and 62 percent of the cases respectively, while in Finland and Norway—both of which have strong social safety nets—inequality did not rise during or after their financial crises of the late 1980s/early 1990s (Galbraith, 1999). In Mexico, the tortilla subsidy (which cost US$400 million annually) was withdrawn in 1999 in part to pay for a US$65 billion bail out of the banks, and their owners. The social benefits of reducing output volatility are therefore considerable. IDB estimates that in Latin America, a three percentage point reduction in the volatility of real GDP growth would reduce the Gini coefficient by about 2 percentage points (IDB, 1998: 100). In summary, there are strong reasons to reduce the occurrence of recessions caused by distress in the financial sector.

In the absence of international action, national action must be taken. This includes strengthening prudential financial regulation, as well as the introduction of controls on destabilizing short-term capital flows. These could prevent labour from bearing all of the brunt of financial/currency crises. As Diwan (1999: 30) concludes: '... in a socially fragile situation, there may be an important role for capital control in imprisoning financial capital and allowing better sharing of the burden of adjustment ...'

Reduce wage inequality, increase social cohesion, and raise labour productivity by means of minimum wages and investment in labour-market institutions.

Trade and capital account liberalization have weakened the bargaining power of unskilled labour across both developed and developing countries (ILO, 1996; van der Hoeven, 1999). This has played an important role in raising wage inequality, as has the associated weakening—and in some cases the destruction of—institutions of collective bargaining, and their influence over wages and working conditions. Trade unions are one of the strongest institutions of civil society and have played a key role in achieving and sustaining democratic transitions (for example Brazil, Poland, and South Africa). Both social capital and democracy have powerful benefits for both poverty reduction and economic growth; thus the restoration of labour-market institutions to mediate the relationship between capital and labour is crucial to long-term social progress as well as to the reduction of poverty through income redistribution. Moreover, minimum wage legislation remains limited in coverage, and in many cases, especially in SSA, statutory levels of minimum wages have been left unadjusted, leading to their decline in real terms. When labour market monopolies exist—for example in plantation agriculture or when a single larger employer dominates a region's labour market (common in transition economies)—minimum wage

legislation is especially important in achieving both efficient and equitable labour-market outcomes.

Regulate privatized enterprises to ensure that shareholders do not gain to the disadvantage of poor consumers

Although ostensibly aimed at improving overall economic efficiency, privatization's inception and pace are more often dictated by budgetary pressures including IMF fiscal conditionality. If privatization raises overall economic efficiency then it can generate more social resources to transfer to the poor. Realising such social gains, however, depends upon the careful design of privatization itself, effective post-privatization regulation to protect the public interest, and investment in an appropriate legal framework. The story of how insiders took advantage of weak corporate governance and the absence of regulation to asset-strip Russia's economy is now well known. In addition to the highly regressive asset redistribution, insider privatization failed to raise economic efficiency—Russia's output collapsed—resulting in fewer, not more, social resources for use in poverty reduction. The BWIs have belatedly woken up to the problem—see for instance (IMF, 1999) on the Kyrgyz Republic. Greater attention to the institutional design of privatization, and greater caution in its use, is now part of the post-Washington Consensus (Stiglitz, 1998b, 1999)—but this is now irrelevant to much of the EE-FSU given the large-scale privatization that has already occurred.

Inequality and poverty outcomes depend upon privatization's speed, the nature of compensatory programmes (if any) for the unemployed, and whether macro-economic policy is expansionary thereby easing the absorption of state employees into private employment without sharp wage declines. The Czech Republic maintained economic growth in the 1990s (although with a financial crisis along the way), thereby easing privatization's employment impact (Stodder, 1998). As a result, and taking account of the progressive tax and transfer system, the Czech Republic stands out as a transition economy with a limited increase in inequality and poverty; WIID shows a rise in the Gini from about 20 in 1990 to a range of 23 to 27 (less than the Gini, 30-32, of the egalitarian Netherlands). Economic growth, combined with only a small rise in inequality, has limited the rise in absolute poverty; this shows a smaller increase than in either Hungary or Poland.[2] China's more gradual privatization in the context of high growth has eased the employment impact (Benziger, 1998). However, China's recent acceleration in its privatization programme is taking place in a slowing economy, and privatization's social costs will accordingly be more difficult to manage.

Privatization is now a 'done deal' in many countries. So, regulation is the key entry point for getting equity objectives into policy. Privatized utilities illustrate the issues. When state-owned utilities have been unable to maintain infrastructure investment, the service access of the poor may improve after privatization if substantial private capital is invested. But, in practice the service provided by privatised utilities to the poor has been mixed; private companies may focus on the most profitable areas, leaving the poor, particularly in

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[2] The poverty headcount measure rises from 0 percent (1987-88) to less than 1 percent (1993-95) in the Czech Republic. This measure rises from 1 to 4 percent, and from 6 to 20 percent in Hungary and Poland respectively (Milanovic, 1998: 68).

rural areas, with the worst access and services. Regulation is therefore critical but is very weak in most transition economies, as elsewhere in the developing world.

Various regulatory mechanisms and subsidies to ensure service delivery to the poor can be deployed, although their relative effectiveness remains uncertain (Sheshinski and López-Calva, 1999). 'Universal service obligations' that require the private service-deliverer to provide access to all groups within their area of concession regardless of income level may be promising (Chisari et al., 1997). However, the poor may be more than willing to pay for the new service, but still unable to pay. Thus a portion of privatization revenues should be earmarked for livelihood projects, thus raising the ability of the poor to pay for the new services.

7. Conclusions

This paper has argued that while excessive egalitarianism stifles incentives and thus poverty reduction through growth, excessive inequality has similar and more pronounced effects. Certainly, many economies have reached levels of inequality that are neither economically efficient nor conducive to rapid poverty reduction and social stability. Addressing this problem requires 'traditional' measures of redistribution—well designed land reform and pro-poor public spending in particular. Although important, especially for the rural poor, these policies will not alter some of the new causes of the recent rise in inequality. These include the systematic compression of the labour share; the erosion of labour institutions; insider privatization; the rise in financial rents; the reduced redistributive role of the tax and transfer system; and distorted regional development policies. Thus to accelerate poverty reduction the post-Washington Consensus must give greater attention to the new causes of rising inequality.

The world economy has changed radically over the last two decades. New economies have become major players in international trade and investment, restrictions on capital flows have been drastically reduced, liberalization and privatization has spread across the developing and formerly-socialist worlds, and the effects of the IT revolution and democratization are still unfolding. While some of these changes are undoubtedly welfare improving, the implications for income distribution and poverty are ambiguous, and not always benign. Certainly, the last twenty years has seen sharp rises in inequality in many countries, particularly in the transition economies and in Latin America. This has made the task of poverty reduction more difficult and action to contain, and reduce, the rise in inequality is necessary to speed up poverty reduction.

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