

First draft, comments welcome

## Policy reform and income distribution<sup>1</sup>

by

Giovanni Andrea Cornia

University of Florence (giovanniandrea.cornia@unifi.it)

### **1. BROAD TRENDS IN INCOME INEQUALITY.**

Domestic income inequality declined steadily between the early 19<sup>th</sup> century and the mid 1970s (Bourguignon and Morisson 2002). Until the 1950s such decline was mainly evident in today's advanced nations and in the socialist countries of Europe, but between the 1950s and early 1970s it spread to several developing countries – such as the Asian Tigers, China and India - which, after achieving independence, introduced a few programs of land reform, educational enlargement, public health and income redistribution.

Despite such decline, in most developing countries, in the 1970s income inequality was still very high, mainly because of the interplay of a few recurrent factors – that we shall label ‘the traditional causes of inequality’ – including high land concentration, unequal access to education and other public services, selective access to credit, the dominance of the mining and plantation sectors (in which rents absorb a large part of output), and the urban bias of public policy which allowed city-based elites to capture a disproportionate share of public expenditure and productive opportunities. Racial and gender discrimination were also important contributors to inequality, and all this was rooted in social systems in which the poor and the lower-middle class had a limited ability to self organize, influence policy and fight for their interests.

Since the mid 1970s, income inequality started turning upwards in the OECD countries (Smeeding 2002) and Latin Amer



The recent inequality rise could also be due to ‘new non-policy causes of inequality’ including skill biased technical change, shifts in labour market participation,

distributive impact of policy reform often collide with a substantial body of evidence indicating that inequality rose in several instances on occasion of the introduction of policies of liberalisation and globalisation. Finally, the paper explores the discrepancy between theoretical predictions and observed inequality trends, by emphasising in particular the distributive impact of liberalisation and globalisation under conditions of poorly sequenced macro policies, incomplete markets, weak institutions, asymmetric information, widespread protectionism and structural rigidities. Conscious of all this, the equity impact of each of the policy instruments and of the overall liberalisation-globalisation package are reviewed hereafter. For each instrument, the predictions of the received theory are first discussed. These are then compared with the observed inequality trends in different types of countries, while possible explanations of the discrepancy between theory and outcomes are discussed at the end of each section.

## **2. ESTERNAL LIBERALISATION AND INEQUALITY**

**2.1 Trade liberalisation.** Trade theory based on the Hercksher-Ohlin (HO) theorem predicts that trade liberalisation leads to greater specialisation and a rise in national income in participating countries, following a more rational global allocation of production inspired by the principle of comparative advantage. In labour-abundant countries, trade liberalisation is expected to switch production from capital-intensive and inefficient import-substitutes towards efficient labour-intensive exportables. In turn, the Stolper-Samuelson theorem posits that such shift leads to the convergence in the prices of goods and factor remunerations. Because of this, domestic inequality is expected to decline in countries endowed with an abundant labour supply and to rise in those with an abundant endowment of capital, as the demand for and remuneration of the latter (that exhibits an unequal income distribution) will increase, while the demand and remuneration of labour (that is distributed more equitably) will fall.

The evidence on the impact of trade liberalisation on inequality is, however, mixed. On the one side, several studies point to a favourable effect. In the 19<sup>th</sup> century, trade liberalisation raised domestic inequality in the rich New World countries but reduced it in the poor Old World ones. Likewise, in an analysis of the determinants of inequality in 35 small developing countries Bourguignon and Morisson (1989) conclude that the removal of trade protection in manufacturing reduced the income of the richest 20 percent of the population and raised that of the bottom 60 percent. Similar conclusions are arrived at by Wood (1994) in the case of the East Asian exporters of labour-intensive manufactured goods. On the other side, an equally important literature points to opposite conclusions for a broad range of countries. For instance, wage inequality was found to have increased in six of seven Latin American countries that liberalized trade, as well as in the Philippines and Eastern Europe (Lindert a

technology that remains constant over time. The model also assumes no economies of scale, efficient factors markets (characterized by no restrictions to factors mobility and full employment of all factors), balanced trade and symmetric trade liberalisation by all trading partners. Yet, in the real world, trade takes place in a multi-country, multi-factors and multi-goods context in which several or even most of the of the above assumptions do not hold. Indeed, a formal extension of the theoretical model shows that the predicted outcomes of efficiency and equity may not obtain if some of the basic assumptions are relaxed (Ethier 1984). Hereafter alternative explanations of why inequality may rise on occasion of trade liberalisation are tentatively provided:

(i) *Changing relative endowments of countries participating in multi-country, multi-factor and multi-goods trade.* The limitations of the 2x2x2 HO model are most obvious when considering the case of trade among countries whose relative comparative advantage evolve over time because of the decision of some of them to change their trade policy. Country A, for instance, may have a comparative advantage in terms of unskilled labour in relation to country B but not of C which has – however – not yet liberalized its trade regime. Thus, a decision to liberalize exports by the latter may generate distributional consequences for A. In particular, the prediction that A will experience a reduction in inequality due to greater trade with B is unlikely to be verified as her labour intensive exports will be displaced by those of C. It may even happen that – because of C's decision to liberalize trade - A will specialize instead in the production of goods with a medium-high skill and capital content with the effect of worsening her wage distribution. This is what happened in the 1990s on occasion of the entry into the world market for labour-intensive manufactures by China and other low-wage economies that affected the exports and comparative advantage of middle-income countries from Latin

produced by means of an abundant factor that is unequally distributed. While an increase in land-intensive agricultural exports may reduce inequality in countries with egalitarian agrarian structures, it would raise it in countries dominated by *latifundia*. Indeed – due to

laws hampered the reallocation of labour across industries. However, the limited spatial mobility of the rural labourers who were most affected by liberalisation would suggest that other factors stand in the way of an enhanced factors mobility.

*(vii) Trade reorientation following capital account liberalisation.* Another explanation that has received so far little attention concerns the interaction between trade and capital account liberalisation. Sudden inflows of foreign capital can entail the appreciation and increasing instability of the exchange rate, shifting in this way the composition of domestic demand towards cheap imports and away from domestic products while rendering exports less competitive (Taylor 2000). All this has the effect of cancelling out the supposed positive effects of trade liberalisation, as it encourages the restructuring of production via a reduction in formal employment and wages and greater reliance on outsourcing, i.e. measures that reduce the absorption of unskilled labour and increase wage inequality.

## **2.2. The liberalisation of Foreign Direct Investments (FDI).**

The predictions of economic theory about the distributive impact of FDI are similar to those of international trade. In low-wage, labour-abundant countries, 'greenfield FDI' accelerate capital accumulation and in this way raise the demand for and (under certain conditions) the wage rate of unskilled workers. FDI may also offer better employment conditions and higher wages to all workers – regardless of their skill level – than in the informal or domestic formal sector. The distributive impact of 'brownfield FDI' is less straightforward, as the possible long term gains in efficiency have to be weighted by short term retrenchments in employment that may cause adverse distributive impact.

Evaluations of changes in wages and employmTJ7ti1.000639 TD0-1.1692 nEval(at7(l)1.6To)-4.7(ry ).0.168





cases, however, the spatial disequalizing effects of FDI may largely be endogenous, as foreign investments are attracted by the economies of scope and agglomeration and the externalities available in the already comparatively advanced areas of developing countries. Indeed, there is quite a bit of evidence that FDI naturally flow not so much to low-wage areas but to high wage areas well endowed with public infrastructure, transport facilities and industrial services.

(v) *Systemic effects in a world of mobile capital and immobile labour.* The mobility of capital and immobility of labour may generate strong competition among developing countries simultaneously attempting to attract a fixed amount of FDI. All these countries may thus engage in a “race to the bottom” by which all of them make concessions to the multinational companies in the field of taxation, subsidies, labour and social security legislation, minimum wages and so on that – in the end – may affect either the distribution of private or public consumption or the welfare of workers. While wages in the multinational sector tend to be higher than in local firms, these wage and employment benefits will be felt only in the countries where FDI have finally taken place. In the countries bypassed by FDI, the ex-ante concessions made to attract them may have generated costs unmatched by benefits.

### **2.3. Capital account liberalisation.**

Mainstream theory maintains that capital account liberalisation raises investments, employment, labour productivity and growth in countries with low capital accumulation but high rates of return on investments and an abundant supply of cheap labour. All this raises employment and - possibly - wages in the developing countries receiving these funds, with favourable effects on equity. In addition, the liberalisation of portfolio flows would permit the diversification of the financial assets of domestic investors leading to a balancing of the risk profile of their portfolios and thus affecting favourably the national saving rate. Finally, the opening of the capital account is supposed to exert a ‘disciplining effect’ on domestic policies in the fiscal and monetary area, thus contributing to macro stability and credibility.

Yet, contrary to these predictions, the empirical evidence points to a widespread deterioration of income inequality on occasion of both inflows and outflows of these funds, as vividly documented by a growing number of examples in the 1990s. With rare exceptions, the liberalisation of portfolio flows generated a sharp social impact. How to account for this discrepancy ? Possible explanations include:

(i) *Appreciation of the real exchange rate on occasion of large inflows.* Large inflows of funds relative to domestic assets generally cause an appreciation of the real exchange rate that reduces employment in the tradeable sector, shifts resources from the tradeable to the non-tradeable sector and encourage subcontracting and wage cuts in the tradeable sector to preserve profit margins (Taylor 2000). Countries can attempt to control the appreciation of the exchange rate via a costly sterilisation of the inflows or through regulation, but both measures work up to a point.

(ii) *Intersectoral allocation of portfolio flows.* Portfolio flows do not directly benefit the poor, as they tend to be invested not so much in agriculture or labour intensive manufacturing but rather in those FIRE activities that have high short-term rates of return and a perceived low risk profile, while employing medium-to-highly skilled workers whose wages tend therefore to rise together with the skilled/unskilled wage differential. In addition, the credit boom associated with the inflow hardly reduces the segmentation

of the credit market between those who can collateralize their loans and those who cannot for lack of guarantees. In turn, during financial crises credit allocation becomes particularly skewed as decapitalized banks may reduce their lending and restrict its allocation to all but preferential borrowers (e.g. large firms in both the traded and non-traded sector). Given, the dominance and greater labour-intensity of small and medium enterprises in developing economies, this 'credit starvation' can have serious poverty and inequality consequences.

*(iii) Sudden capital outflows and financial instability.* The impact on inequality is also mediated by the tendency of capital account liberalisation to augment the frequency of destabilising financial crises with real effects (Caprio and Klingebiel 1997). Left to themselves, deregulated financial systems do not perform well owing to problems of incomplete information, markets and contracts, herd behaviour, panics, weak supervision and speculation on asset prices. Indeed, as noted by a recent IMF paper (Prasad et al 2003) there is no evidence that international capital flows accelerate the rate of growth in recipient countries, while there is clear evidence that they raise the instability of private consumption, with clear effect short term and long term effects on poverty as people in developing countries have no access to financial market and cannot smooth their stream of consumption over time.

The empirical evidence about the distributional impact of financial crises points to a negative impact, particularly in countries with weak labour institutions and social safety nets, as underscored by Galbraith and Lu (1999) who found that in Latin America and Asia financial crises raised inequality in 73 and 62 percent of the time while no impact was evident in Finland, Norway and Spain. Diwan (1999) arrives at similar conclusions on the basis of panel data showing that the labour share contracts markedly and permanently in the wake of financial crises. In an study on Latin America, Behrman et. al. (2000) find that the strongest wage disequalizing component of the overall reform package was the liberalisation of the capital account. Some analyses have argued that during the first phases of such crises, income inequality may fall as the first people to be affected are the comparatively better paid workers of the FIRE sector. Yet, analyses based on micro data show that the medium term impact on inequality - transmitted via differential employment, wages and price effects - affect the lower deciles especially hard (Levinshon et al 1999).

*(iv) Bailouts of the banking system.* Large financial crises induce a medium term worsening of inequality because of the huge cost borne for their resolution through the recapitalisation with public money, new taxes or foregone progressive expenditures of the banking sector, the provision of bailouts for depositors, and debt relief for borrowers which entail regressive redistributions from poor non participants to rich large participants of the financial sector. The average costs of such operations in emerging economies was equal to 14.7 percent of the GDP of the countries affected (Halac and Schmuckler, 2003). In addition, evidence shows that only a few privileged participants receive these transfers – in particular large foreign and more informed depositors, as well as large and related borrowers. The analysis suggests that the transfers go from poorer to richer households, with clear disequalizing effects.

nature that migrant flows have taken place during the last twenty years. While over 1870-1914 migration was largely state-sponsored, -controlled and -assisted, the same cannot be said these days when immigration policies remain quite tight while much of the immigration is illegal or semilegal. Illegal migration, however, is very inefficient as it imposes large costs on the migrants themselves while enriching organized crime, increases expenditure on repression and deportation in the countries of destination, depresses the wage rate of illegal workers in the countries of destination who for fear of being reported to the police and being deported. A more open migration policy would therefore reduce income inequality between countries and – under certain conditions concerning the skill level of the migrants – within countries.

The limited efficiency and equity gains deriving from the current bout of migration differ considerably with those observed during that of 1870-1914. During this period 60 million mostly unskilled people migrated from the European periphery to the New World. The inequality impact of such migration broadly conformed with the predictions of standard theory. To start with, the increase in migration led to a substantial reduction in the wage and income gap between the countries of the Old and New World, as globalisation increased the relative demand for and the remuneration of the abundant factors and reduced that of the scarce factors (Williamson 1996, Andersen 1999). Mass migration from the periphery of Europe to the New World appears to explain most (some eighty-percent) of the drop in the New World-Old World wage gap between 1870 and 1914 (*ibid.*).

Secondly, globalisation caused a rise in within-country inequality in the rich countries of the New World and a fall in the poor ones of the Old World (Anderson 1999). In Great Britain, Ireland and Sweden, the ratio of unskilled wages to farm rents per acre rose following a drop in the supply of unskilled labour due to migration, growing labour demand in the export-led manufacturing sector and a fall in the prices of agricultural



deprived the poor of the possibility of investing in their business. While such policies might not cause negative effects in countries with vibrant private credit markets, the closure of rural bank branches and abolition of dedicated credit lines pushed the small entrepreneurs and the peasants into the harms of informal moneylenders who charge exorbitant interest rates.

(v) *High US interest rate policy.* In many countries, the financial sector was deregulated in the period 1982-1993 during which the US Federal Reserve followed a policy of high interest rates. Such policy and the IMF habit of demanding large increases in interest rates in adjusting countries fuelled a worldwide rise in real rates to well above the secular trend of 2-3 percent. All this had the effect of pushing several governments into a vicious circle in which the rate increases augmented the cost of debt servicing, which further pushed upward deficits and indebtedness. In a number of middle income and industrialized countries with large stocks of debt, this policy raised the cost of servicing the public debt to almost 15 per cent of GDP (UNCTAD 1997). The net effect of all this was disequalizing as in developing countries tax incidence is broadly proportional while ownership of financial assets is highly concentrated. Financial deregulation appears therefore to have raised the rate of return on financial assets and the share of GDP accruing to non-wage incomes and fuelled the redistribution of labor income to holders of state bonds via the budget.

### **3.2 The liberalisation of the labour market.**

Neoclassical labour theory suggests that the liberalisation of wage formation is likely to generate a rise in both employment (as enterprises are more willing to hire workers at lower wages) and wage dispersion (as workers with higher human capital receive higher salaries than in the past). The net distributiv



What are the explanations of these trends that conflict at least in part with the results expected on the basis of the tax theory summarized above? No detailed analysis is available in this field but the following hypothesis can plausibly be advanced:

(i) *The elimination of trade taxes.* In many countries, trade liberalisation led to considerable losses of comparatively easy-to-collect import duties and export taxes. The decline in revenue from trade taxes was not compensated in most cases by a rapid increase in revenue generation from other taxes. In India the reduction of import duties following trade liberalisation led to a permanent reduction of the revenue/GDP by almost two points. The revenue decline that was compensated by reducing subsidies on agricultural inputs and rural credit as well as food subsidies.

(ii) *Limited impact of tax broadening.* A first explanation is that the broadening of the tax base (via reduced exemptions and greater efforts at tax collection) yielded limited effects

wage differentials by skill level rose following liberalisation, as a result of a reduction of employment in the modern sector, a rise in productivity and wage concentration by skill within the same, the reallocation of excess labour to the low-paying non-traded sector (informal trade, services and traditional agriculture) and a rise of inequality within the latter. In turn, Cornia with Kiiski (2001) evaluated the impact of liberalisation on an overall reform index developed by the World Bank on a sample of 32 developing and transitional economies for the years 1980- 95. The study suggests that while the reform package had an overall disequalizing effect, this was more pronounced in the economies of the former Soviet bloc, probably on account of their institutional weakness, but less marked in the countries with a high initial levels of inequality.

Finally, an analysis of the poverty impact of IMF-World Bank stabilisation and structural adjustment programs (Easterly 2001) found that these moderated the rise of poverty during output contractions, possibly because of the cushioning of the crisis through Bank-sponsored, adjustment-related social safety nets. However, the study found also that, during spells of economic expansion,



## 6. CONCLUSIONS

The basic theoretical models used to promote policies of liberalisation and globalisation are often unable to predict accurately the inequality impact of internal and external liberalisation, as they are based on simple relations and highly restrictive assumptions that do not take into account the impact of institutional weaknesses, structural rigidities, incomplete markets, asymmetric information, persistent protectionism and the complexity of liberalisation of trade, finance, labour markets and taxation in a real life environment. This theoretical weakness comes at a high cost. Indeed, while liberalisation and globalisation policies may generate positive effects in countries with strong markets and institutions and a favourable position on world markets, their theoretically-inspired but premature and poorly-sequenced implementation under conditions of incomplete market and institutions and a dependent position may generate adverse distributive outcomes.

## References

- Alarcon, Diana and Terry McKinley (1996), "Increasing Wage Inequality Accompanies Trade Liberalisation in Mexico" in Albert Berry (ed.) *The Social Challenge of the New Economic Era in Latin America*
- Anderson, Edward (1999), "Globalisation and Inequality in Historical Perspective", background paper to the Human Development Report 1999, UNDP, New York.
- Atkinson, Anthony, B. (2000), "Increased Income Inequality in OECD Countries and the Redistributive Impact of the Government Budget", *UNU/WIDER Working Papers*, No. 202, UNU/WIDER, Helsinki.
- Atkinson, Anthony, B. (2003), "Income Inequality in OECD Countries: Data and Explanations", *CESifo Economic Studies*, Vol. 49, No 4/2003, 479-514, Munich.
- Atkinson, Anthony, B and Andrea Brandolini (2003), "The Panel-of-Country Approach to Explaining Income Inequality: An Interdisciplinary Agenda", mimeo, Oxford and Rome.
- Banerjee, Ajit and Thomas Piketty (2001), ' Are the Rich Growing Richer: Evidence from Indian Tax data', mimeo. MIT, Cambridge, MA and CEPREMAP, Paris. Available at <http://www.worldbank.org/indiapoverityworkshop>.
- B0.0siJ-11.2/rn0.0341.- ' ome.4(e)7.'"cBn ary EMAP,c.8(o)-0.1(m)u6a nu0.5(gTJ/TT(ir)4.76.4(dgez.0022 Tc)u6a nu0.cy)t"4(d6.5

- Chu, Ke-young, Hamid Davoodi and Sanjeev Gupta (2000), "Income Distribution and Tax and Government Social Spending Policies in Developing Countries", *UNU/WIDER Working Papers*, No. 214, UNU/WIDER, Helsinki.
- Cornia, Giovanni Andrea (1996), "Transition and Income Distribution: Theory, Evidence and Initial Interpretation", *WIDER Research in Progress*, No.1, UNU/WIDER, Helsinki.
- Cornia, Giovanni Andrea (2004),

