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INEQUALITY IN A GLOBAL PERSPECTIVE

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Contents

Abstract

The basic story of global inequality in the last three decades has been an overall decline, but one which is composed of quite intricate patterns. There has been a decline in between country inequality as China and India have grown relative to the US and other rich countries. This has been accompanied by an increase in within country inequality, but this is itself composed of rising inequality in some countries such as China, India and the US, and declining inequality in other countries, including large economies in Latin America. Section 2 of the paper will review these patterns, highlighting country diversity to make the central point that policy matters. Section 3 addresses a normative question—what relative weight should be given to within country and between inequality in making an overall global assessment? This section will bring on board recent philosophical discourse, including on inequality of opportunity in a global frame. Section 4 will return to the "policy matters" theme and take up global constraints on national redistribution policy in a globalized world, for example a race to the bottom on taxation to attract and keep capital and talent, and possible global institutional responses to alleviate these constraints.

1. Introduction

Inequality is the issue of the moment. In many rich countries, particularly the US, there is a clear trend of rising income inequality, as set out in the pioneering empirical work of Piketty (2014) and his colleagues. This trend, it is argued, is also seen in large developing countries such as China and India, leading to a view that we are living in "an age of rising inequality". Indeed, for Piketty (2014) rising inequality is the natural state of capitalism, reversed only when catastrophes like war strike a nation. But such a country by country analysis, while important for establishing the basic facts, is incomplete for a world where countries are ever more knitted together by trade and investment and where, perhaps, our common humanity calls for an assessment of global inequality rather than national inequality in isolation.

This paper looks at inequality in global perspective. The world is divided into nation states, and global income or consumption inequality can be thought of as a combination of inequality within nation states and inequality between nation states. Inequality within a nation state is the variation of incomes around the national average income. Inequality between nation states is the variation of these national average incomes across nation states. One way of classifying a country into income rich or income poor is through the level its average income, or gross national income per capita.. Various cutoffs have been proposed, of which the most prominent are those of the World Bank (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups), which delineate low-income countries (LICs) from middle-income countries (MICs) and high-income countries (HICs). Whether an individual is poor is seen through the lens of a global poverty line, applying what are known as "purchasing power parity" (PPP) exchange rates to convert each nation state's currency into a common, dollar denominated, unit.

With this background, the trends and patterns of global inequality (and poverty) are intricate and nuanced, as set out in Section 2. It is not necessarily true that we are living in an age of rising inequality, if by this is meant that inequality as conventionally measured is rising in all countries and in the world as a whole. Section 3 asks the question, what if inequality within some nations rises but inequality between nations falls? This is in fact the pattern we have seen over the last quarter century. How should a global assessment weigh up these seemingly conflicting trends? Section 3 argues that the sense in which we are living in an age of rising inequality, is that we are living in an age where economic forces of technical change are aligned to exert a pressure towards rising inequality. But policy mediates between fundamental economic forces, and it is policy which explains the considerable variation in observed patterns. However, Section 4 develops the argument that policy is in turn constrained by the forces of globalization and borders open to the movements of capital, labor and goods.. Section 5 concludes the paper.

2. Inequality Around the World: Trends and Patterns

Before discussing trends and patterns of inequality around the world, a word on concepts, data and measurement. From an economic perspective, the conceptual ideal would be to attribute to each individual a metric of economic wellbeing and to measure inequality in the distribution of this wellbeing from lowest to highest. But should this metric be consumption, or income, or wealth? While consumption relates directly to economic notions of wellbeing, income may be less well suited to this purpose (for example, babies and young children do not have income, but they have consumption provided by the family's income). However, income indicates a command over purchasing power, and indeed may be better suited as a link to political power. But wealth may be an even better indicator of such generalized conceptions of link to power and influence. Whatever the fine conceptual debates, as so often happens what we end up using depends on the data that is available.

Analysts of inequality at the national and global levels are dependent primarily on data collected and provided by national statistical services. These agencies conduct nationally representative household surveys, which collect information on consumption and on income, as well as labor force surveys that collect information on labor income. Some household surveys may collect some data on wealth, but the coverage is quite incomplete. There are also response rate issues, it being recognized that household surveys tend to under sample the very rich. In any event, given all these issues, one can construct a distribution of income or consumption at the national level, and it is this data source which is used to gauge inequality within nation states. Putting together the world distribution of income from these national sources raises the question of what exchange rate to use to convert incomes from different countries to a common unit of account (typically, the US dollar). The method of "purchasing power parity" exchange rates is used to improve the validity of welfare comparisons, taking into account the substantial variations in the relative prices of tradable and non-tradable goods across countries Market exchange rates are also subject to vagaries of market fluctuations and speculative bubbles. Thus the PPP method is now standard, but it is open to its own set of questions and issues (Deaton, 2005).

Finally, there is the question of what measure of inequality to use in characterizing trends and patterns. The share in income of the top 1% or the top 10% is now recognized in the popular discourse. While useful and indeed evocative, these measures leave out what happens in the rest of the income distribution—the remaining 99% or 90%. The Gini coefficient, somewhat technical in construct but now becoming increasingly well known in public discourse, is one such measure. It aggregates the entire pattern of income shares from the highest income to the lowest income, using the ranks as weights. If all income was owned by one individual, the Gini coefficient would be 1. If income was equally distributed it would be zero. In between, the Gini coefficient is written as a percentage, ranging from 0% to 100%. Another measure, the "mean log deviation" (MLD) is equally technical but is gaining ground in analytical work. The MLD is the average of the logarithm of income. Unlike the normal average, since the logarithm transformation in effect gives lower weight to higher incomes, the MLD is inequality sensitive. Overall inequality as measured by the MLD can be "decomposed" into constituent parts across groups---for example, within nations inequality and between nations inequality for global inequality.

One of the best-known studies compiling a global distribution of income from national sources to study the patterns across nations is by Lakner and Milanovic (2016 p. 3):

"In the absence of a global household survey, we need to resort to combining national surveys. Our database includes 565 household surveys across five benchmark years….National surveys collect

information in terms of local currencies, which we convert into a common currency using within-country inflation to correct for changes in the price level over time, expressing first everything in constant 2005 local currency units, and then using the 2005 purchasing power parity (PPP) exchange rates to adjust for cost of living differences across countries. In constructing our global distribution we mix income and consumption surveys."

The central and striking finding of Lakner and Milanovic (2016, p. 10, Table 3) is that between their two end points of 1988 to 2008 ("From the Fall of the Berlin Wall to the Great Recession") global inequality, that is inequality as between all individuals in the world as a whole, *fell*. The point is made in a number of different ways, including the trend of the standard Gini coefficient measure of inequality, which fell from 72.2% in 1988 to 70.5% in 2008. According to these figures, then, the world as a whole has *not* been living through an age of rising inequality; quite the contrary. One should of course be cautious given all the data issues listed earlier, but at the very least we can say that global inequality did not increase during this period.

What explains this global trend of falling inequality? It is helpful to go back to the notion that world inequality is composed of inequality between nations and inequality within nations. Inequality between nations, that part of global inequality brought about by difference in average incomes of rich and poor countries, accounts for the bulk of global inequality. The MLD measure of inequality, because can be decomposed, provides a quantitative handle on the magnitudes. Lakner and Milanovic (2016, p. 10, Table 3) show that in 1988 the between nations component of global inequality was 83.2%. In other words, had all countries had the same average income, leaving only within nation inequality, global inequality would have been 16.8% of its actual value. What happened between 1988 and 2008 (and indeed over the longer period of globalization before and after this period) is that poorer counties like India, China and Vietnam grew much faster than rich countries like the US. The effect on between nations inequality was so great that global inequality fell. The MLD decomposition shows that by 2008 the between nations inequality component had fallen to 76.7%, down from is 1988 share of 83.2%. Still very high of course, but much lower than it was before thanks to the rapid growth of poorer countries relative to rich countries. A similar narrative, backed up by similar facts, is to be found in Bourguignon (2016, Table1). In an analogous exercise but confined only to developing countries, Ravallion (2018) also finds total inequality decreasing, driven by declining between nations inequality.

Of course the finding of falling global inequality is contingent on the approach to definition and measurement of inequality that is chosen, which have implicit ni them weights given to within nations and between nations inequality. However, once explained, it might not be quite such a surprise that global inequality actually fell during a period which the public discourse often characterizes as an age of rising inequality. The perceptions, it could be argued, are borne of the within nations experience, especially in the US and some European countries (Piketty, 2014) where inequality has been rising. But, as it turns out, the picture here is nuanced as well, with quite varied experiences around the world.

The leading exhibit for counterintuitive trends is Latin America, once the poster child for high and rising inequality. However, from about the mid-1990s onwards, measured inequality in most Latin American countries fell for the next fifteen years (Lopez-Calva and Lustig, 2010; Gasparini and Lustig, 2012; Lustig, 2014). Thus, for example, the Gini coefficient in Brazil fell after 1998; between 2001 and 2007 it fell 4 percentage points, from 0.59 to 0.54; in Argentina it fell from 0.53 in 2002 to 0.46 in 2009; in Mexico it fell from 0.56 in 1994 to 0.51 in 2006 (Gasparini and Lustig, 2012). The reasons for these

declines are many fold, but mostly linked to policy—redistributive taxes and spending, minimum wages, and increased supply of secondary school educated workers.

But inequality did rise in some big Asian economies. Asian Development Bank (2012) presented data which showed that between the 1990s and the 2000s, inequality had risen in countries comprising no less than 80% of developing Asia's population, including countries like India, Sri Lanka, Bangladesh, Indonesia and China. The most spectacular of these cases is of course China. After its opening up in 1978, and especially after its opening up to world trade from the 1990s onwards, China had dramatic growth and unheard of poverty reduction. But it also had very sharp increase in inequality. As Kanbur, Wang and Zhang (2017) show, between 1995 and 2010 the Gini coefficient for China rose from 0.35 to 0.53.

However, even for China the picture is more nuanced that the common narrative. In fact, Kanbur, Yue and Zhang (2017) highlight the fact that from 2010 onwards, the Gini coefficient fell to 0.50 in 2012 and 2014. Such a plateauing and small turndown in inequality is also present but not highlighted in Piketty, Yang and Zucman (2017), who use different data sources but find similar patterns. Kanbur, Yue and Wang (2017) follow the earlier line of argument of Fan, Kanbur and Zhang (2011) that the turnaround can be ascribed to a tightening of rural labor markets as the result of large scale out migration to urban areas, and government investment in infrastructure in rural areas and in lagging inland provinces, and various government interventions in health and in labor markets to mitigate rising inequality.

For Sub-Saharan Africa, the inequality picture has been mixed. As a recent World Bank Report concludes:

"For the subset of 23 countries for which surveys are available with which to assess trends in inequality, half the countries experienced a decline in inequality and the other half saw an increase. No clear patterns are observed by countries' resource status, income status, or initial level of inequality." (Beegle et. al., 2016, p 15)

And as for Middle East and North Africa, there is a paradox. Despite the popular narrative that the Arab Spring was caused by rising inequality, there is no such clear trend in the data:

"In addition to the mean-log deviation and the Gini, an alternative way to look at inequality is by examining the income/consumption ratio of individuals at various points in the distribution…..With the exception of Djibouti in 2012, the 90/10 ratio for most MNA countries appears to hover between 3 and 6 …. In addition, the ratio appears to have declined or stayed the same in all countries except Iraq." (Krishnan et al, 2016, p. 3).

All in all, we can thus conclude with Ravallion (2018, p5) that

"The idea of a common global force of economic integration driving up inequality everywhere can be readily dismissed. Inequality appears to fall in some developing countries when they are opened to trade and grow in the aggregate, while inequality increases in other countries…. And there are clearly many other forces in play. Indeed, during periods of economic growth we have seen falling inequality within developing countries about as often as we have seen rising inequality."

We do not appear to be living in an age of rising inequality as measured by actual outcomes. Policy matters and can alter the impact of underlying economic forces in one way or another.

3. The Nation State and Global Inequality and Poverty

We have seen that although inequality has risen in some countries global inequality as conventionally measured has nevertheless fallen, primarily because the gap between rich and poor countries has closed as the result of fast growing poor countries who have now, in fact, transitioned from LIC to MIC (though not yet HIC) status. Should the fact that inequality is rising in some countries matter at all for evaluation of inequality, if global inequality has fallen? Of course had inequality in these countries fallen, global inequality would have fallen even faster. But that is not the point at issue, which is best raised through a sharp contrast between rising within nation inequality but falling global inequality. What exactly is the salience of the nation state to a normative evaluation of global inequality? And how, if at all, can the conflicting perspectives be resolved?

The question can also be posed through a different approach to the global distributional patterns of the last few decades, this time from the perspective of poverty. Sumner (2012) presented an intriguing set of stylized facts which animated this discussion. Using official international definitions and measures, the following statements hold true: (i) thirty years ago, 90% of the world's poor lived in LICs; (ii) today, 75% of the world's poor live in MICs. The poor have not moved, of course! What has happened is that some of the countries in which they lived have grown so fast, on average, that they are now citizens of MICs rather than LICs. But the rising tide has not lifted all boats, at least not sufficiently, and this is associated with rising inequality in these large fast growing economies. The result is that the bulk of the poor now live in countries that are not poor, at least according to the LIC/MIC criterion.

These stylized facts represent a growing disconnect between a person being poor and his or her country being poor. Thirty years ago, the connection was quite tight. Not so much now. This evolution has impacted significantly the debate on criteria for aid allocation, both in its practicalities and in its philosophical foundations. On practicalities, almost all aid donors have thresholds and cutoff for average income beyond which they begin to taper off aid to (the no longer so) poor countries. The cutoffs vary from agency to agency but by and large they cluster around the LIC/MIC threshold, currently a gross national income per head of almost $1,000.

For example, the cutoff for the World Bank's soft loan arm IDA is $1,165 in 2018. If this "graduation rule" were to be maintained, as Moss and Leo (2011) have argued, in a few years the fund that was created to engage with the World's poor would be disengaged with the bulk of them, who now live in MICs. India was a case in point in 2013, when discussions started on its "graduation" because India had been above the cutoff at that time for three years in a row, which is the usual trigger for the start of phasing out. The analytical argument in Kanbur and Sumner (2012) was that the focus of attention should be poor people, not poor countries. Now that the correlation between the two was falling apart, the IDA graduation rules should be revisited. In India itself the debate was lively, between those who viewed it as a matter of national pride that India was about to graduate out of IDA, and those who felt that the additional concessional funds were need for addressing poverty. In Northern countries a particular sticking point was that India was itself an aid donor to even poorer countries. This raised the question, in the words of Kanbur (2015), "Can a Country Be a Donor and a Recipient of Aid?"

The debate was eventually resolved in favor of allowing India continued access to IDA for the next round of IDA, 2014-2016. But this was recognized to be temporary, with the phase out beginning in the next three year round, 2017-2019. Whatever the outcome and whatever the ongoing debate on

IDA's operational rules, the basic point is that the evolving patterns of global inequality are impinging on the development discourse significantly.

Focusing solely on global inequality without attention to within nation inequality is often referred to as emerging from a "cosmopolitan" philosophical perspective, which does not give special salience to the nation state. This would be the argument for continuing to give development assistance to India because it still has millions of poor people, even though the country on average has crossed the poverty line. There is a philosophical debate between the "Global Rawlsians" and Rawls himself. As the label suggests, Global Rawlsians simply globalized the Rawlsian principle of focusing policy on the poorest in a society (Rawls, 1971). On this view, aid should flow to the poor no matter in which country they live, the nation state being irrelevant to this moral determination. Among the philosophers arguing in this fashion are Beitz (1979), Pogge (1989) and Singer (2002). However, perhaps surprisingly, Rawls provided a counter to this in Rawls (1999). To quote Nagel (2005, pp. 114-115):

"Rawls argued that the liberal requirements of justice include a strong component of equality among citizens, but that this is a specifically political demand, which applies to the basic structure of a unified nation-state….Egalitarian justice is a requirement on the internal political, economic, and social structure of nation-states and cannot be extrapolated to different contexts."

If one does give nation states special weight in assessment of inequality, that can change our views on the levels and trends of global inequality. Ravallion (2018) argues that one can give weight to national average income in assessing the wellbeing of an individual in that country through a relative deprivation rationale. But there are other aspects to assessing global inequality, each of which can give a different view on the trend of inequality:

" Global inequality is found to be rising if one or more of the following conditions holds: (i) one attaches a high ethical weight on the poorest; (ii) one has a strong ethical aversion to "high-end inequality;" (iii) one takes a more nationalistic perspective, emphasizing relative deprivation within countries; or (iv) one sees inequality as absolute rather than relative. " (Ravallion, 2018, p. 1).

But there is one other dimension of global inequality which needs to be addressed. This is that, no matter what the trend, the level of the between nation component is very high—according to Lakner and Milanovic's (2016) data, by 2008 the between nations inequality component had fallen from its 1988 level of 83.2%, but only to 76.7%. It was still the case that more than three quarters of the world's inequality between individuals was accounted for by the difference between rich and poor nations, not by variations within rich nations and poor nations.

With these facts as backdrop, Milanovic (2015 a, b) develops the concept of the "citizenship premium". The core idea goes back to the notion that an individual's income can be seen as determined by two characteristics of the country in which he or she lives: the average income of that country and inequality in that country. Milanovic (2015 a, b), divides each country into percentiles and uses the average income of each percentile as the income level whose variation is to be explained. For the 118 countries in his sample therefore, Milanovic has 11,800 income observations:

"I 'explain' these incomes using only one variable – the country where individuals live….In a least-square dummy variable regression, I use Congo (the poorest county in the world) as the 'omitted country' so that I can express the citizenship premium in every other country in terms of the income

gain compared to Congo. The premium for the US is 355%, it is 329% for Sweden and 164% for Brazil." (Milanovic, 2015a)

Following Roemer's (1998) formulation of the concept of "inequality of opportunity", the citizenship rent would be considered to be a manifestation of unfair inequality since place of birth is exogenous to an individual—to use Roemer's terminology, it is a "circumstance" and not dependent on his or her "effort." From this formulation of the citizenship premium as being unfair and not being deserved might follow, for example, a normative position that borders should be open to allow migration to correct for the act of fate which meant some were born into rich countries and others into poor countries.

There is, however, a strand of political philosophy which goes against this line of argument, based on the right of a polity to maintain its borders. Indeed, it has been argued that such self-determination is an important characteristic of democracy itself (Miller, 2016). Further, there is also a counter to the argument that an individual does not "deserve" the per capita income of a country which he or she has been born into (Kanbur, 2018a). A standard result in the empirical growth literature is that the "quality of institutions" determines growth rates and also levels of per capita income. But institutions do not just arise out of thin air. They have to be designed and maintained through collective action. To the extent that the higher per capita income of a country is the result of such collective action, do not the individuals who engage in that action "deserve" its fruits? But to set against this is the point that if this collective action entailed the enslavement and colonization of another society, then such morally reprehensible action would not justify the higher per capita incomes enjoyed by the citizens of that country.

The debates will no doubt go on; the point however is that they are animated by the newly emerging empirical patterns of within nation states and between nation states inequality.

4. **Policy and Global Constraints to National Redistribution**

Inequality is not rising everywhere and in the world as a whole. But there is indeed a sense in which we are living in an age of rising inequality, going beyond the Piketty (2014) argument that rising inequality is the natural state of capital accumulation in a capitalist economy. This is that the trend of technological progress is to displace basic labor in favor of skilled labor and capital. Such labor saving technical change, also called skill biased technical change has been the hallmark of the world economy for at least the last three decades, and looks set to continue in the decades to come (Autor, 2014; Acemoglu and Autor, 2011; Acemoglu and Restrepo 2018; Chau and Kanbur 2018).

At least in the short run, which could last for several decades, the displacement effects of these trends could work to increase inequality as wages of highly skilled labor (and returns to capital) increase and wages of basic labor fall if there is downward flexibility, or unemployment is created if wages are not flexible. In the long run, of course, the full set of consequences depends on how greater productivity plays out in terms of higher output and thus higher demand for labor. Those pointing to the inequality consequences of current technological trends are often told to look at historical episodes—the industrial revolution displacing craft labor, the internal combustion engine displacing employment in other forms of transport, the electric light bulb displacing candle makers, and so on. Eventually, it is said, the new technology created new jobs and over the long run standards of living were higher. This cannot of course be denied. But we neglect the consequences of labor displacement, perhaps over decades, at our peril. Their manifestations are already present in the politics of the US and Europe.

If we accept the basic framework that labor saving technical change will, on a business as usual scenario, cause rising inequality over the politically relevant time horizon, what should be the policy response? Kanbur (2018b) argues that responses fall into three broad categories. First is a supply side response to counter the increase demand for skilled labor because of technical change. This is simply to increase the supply of skilled labor through education policy. Indeed, this is argued to be part of the explanation for how Latin America countries bucked the trend and managed to reduce inequality over the past two decades. Through use of policy interventions such as Conditional Cash Transfers, these countries increase the supply of higher secondary school enrollments, which translated into mitigating the increased demand for more highly educated labor (Gasparini and Lustig, 2011). However, some caution is in order. In the "race between technology and education" (Goldin and Katz, 2009), greater public spending on education related interventions is necessary but it is not a panacea. The equality enhancing strength of public education can be severely dented by the influence of parental inputs, themselves a function of income inequality (Lovenheim, 2011; Cunha et. al., 2010).

The second canonical response is of course to redistribute the potentially more unequal market income to achieve greater equality, through labor market regulation and through tax and transfer instruments. Minimum wages are a conventional labor market regulation instrument and have been credited with part of the decline in Latin American inequality (Gasparini and Lustig, 2011), though of course there is a big debate on their efficacy, for example for Africa (Bhorat, Kanbur and Stanwix, 2017). But standard tax and transfer instruments have also been credited with part of the decline of Latin American inequality. And, indeed, decline in progressivity of tax and transfer regimes has been argued to be a feature of rising inequality in the US (Piketty, 2014). In developing countries with large informal sectors where income tax systems are not very advanced, public employment schemes play a large role in transferring purchasing power targeted to the poorest. India's National Rural Employment Guarantee

Program is the largest such program in the world (http://nrega.nic.in/netnrega/mgnrega_new/Nrega_home.aspx). But a number of countries have analogous programs (for example, South Africa, Philip, 2012). But of course such programs cannot reach households which do not have adults with the physical capacity to participate.

The economics of tax and transfer programs is well developed, ranging from the Nobel prize winning theoretical contribution of the late James Mirrlees (1971) through empirical evaluations of employment programs (Murgai, Ravallion and Van de Walle, 2016), to the current debates on universal basic income versus targeted transfers to the poor. The principles are fairly well understood, and disagreements arise over objectives or over interpretation of evidence, but within a common frame. Where there is considerably less understanding, at least among economists, is on the social acceptability of different forms of transfer:

"Some forms of transfer, while cost-effective and efficient, may simply be not dignified in particular social and cultural settings. Here are three examples that illustrate the dilemma. First, while a simple cash transfer making up for the redundant steelworker's lost wages is economically efficient… it does not substitute fully for a lifestyle and culture built around the norms of the dignity of a wage earned through the sweat of the brow….Second, means-testing of transfers is well analyzed in economics, and we are well aware of the range of economic benefits and costs associated with fine targeting of transfers to ensure they get to the poor and only the poor. But such means testing is quite acceptable in some societies, while it is considered undignified in others because of particular histories and norms. Third, while public works schemes provide an excellent self-targeting incentive mechanism for transfers, what is done in the public works scheme matters too, in terms of whether it is considered dignified and socially acceptable." (Kanbur, 2018b).

The third canonical response to labor saving technical change is a response that is largely absent from the literature. It arises as a response to the question—why must public policy take the trend of technical change as exogenous and not amenable to alteration through policy intervention? Lest this be thought to be a Canute-like endeavor to push back the tide, let us remember that the technical change of today is what it is because of public investment in the past. The internet is the product of public investment by the US government, albeit initially with military objectives. The high yielding varieties of rice and other grains developed in the 1950s and 1960s, which led to the Green Revolution and ended famine in India, were developed through public investment. The initial discoveries which led to the genetic modification revolution were incubated in the public sector.

The idea that technical change is not exogenous but market driven and thus amenable to intervention is an old one (Arrow, 1962). Indeed, initially the idea was that because of externalities and network effects the market would undersupply technical change, leading to a case for public intervention and public R&D. Why should we not now think of public intervention to develop technology that is more equitable in its outcomes, rather than chase its tail through supplementary measures after it manifests itself? The late Tony Atkinson (2015) took this view in his last book:

"The direction of technological change should be an explicit concern of policy-makers, encouraging innovation in a form that increases the employability of workers, emphasising the human dimension of service provision." (Atkinson, 2015, pp 303)

Of course there will be many debates on how exactly this is to be done, and on whether it can be done at all. But the first step is to ask the question, a question which is missing from the current discourse.

The three national level responses to rising inequality outlined above can and will be debated. But a prior question, perhaps, is how much freedom do national governments have to implement these policies in a globalized world where business and skilled labor are mobile across national borders. This mobility may have contributed to narrowing income gaps between rich and poor countries, but it may also constrain domestic policy.

There are at least five ways in which a global perspective sheds light on the limits to domestic policy to address inequality.

- Mobility of Capital means that corporate taxation, to manage rising inequality directly or to raise revenue for expanding education and training, is restricted in the absence of global agreements on minimum corporate tax rates. In their absence, there will be a race to the bottom on these taxes, and tax havens will flourish.

- Mobility of skilled labor also means that taxation of high incomes from skilled labor is constrained in the same way that capital taxation is constrained. Further, the efficacy of the supply side response to managing rising inequality, by increasing the supply of educated workers, is also dented if these can leave for lower tax pastures elsewhere. A policy race to the bottom, low supply of skilled labor and low taxation of incomes from skilled labor, then follows.

- Mobility of low income unskilled labor also raises issues for national management of inequality. If increased transfer benefits at the lower end, brought in to address displacement of basic labor, induce in-migration of basic labor, this will increase the fiscal costs of the redistribution policy. This also applies to generalized subsidies such as food subsidies. If a transfer policy increases incentives for in-migration, the costs of that policy will be higher than anticipated. And if governments take these into account, there will be a race to the bottom on transfer policy as well.

- Regulation and Labor Standards are a standard way of ensuring fairer distribution of the gains from technical change. To the extent that international trade and investment agreements restrict the scope of independent regulatory policy, there is less leeway for national governments. But notice that even without these agreements there will be a race to the bottom as governments put in lower standards, or enforce standards less vigorously, to get a cost advantage in export markets. What is needed are minimum standards agreements across countries exporting into common markets.

- Finally, consider incentivizing and public investment in R&D to shift the tide away from labor saving to labor using technical change, as proposed by Tony Atkinson (2015) in his last book. But this faces all the problems of investment in public goods, since the benefits will spread beyond the borders of the initial investors. In this sense the global perspective once again highlights the tendency to underinvest in inequality reducing interventions.

Of course domestic policies have been successful in some cases, where inequality has fallen. The point however is that these policies could not go as far as they might have been able to. We are thus left with the conundrum that addressing national level inequality through national policies will be

less effective unless cross-national agreements can be reached on a range of tax and investment issues. The weakness of global institutions in addressing these questions is surely another sense in which we are living in an age of rising inequality.

5. Conclusion

This paper has approached income inequality from a global perspective. The basic facts of global inequality are that inequality between nation states has been falling over the past three decades as poor countries like China and India have grown faster than rich countries like the US, Japan and Europe. Inequality within nation states has risen overall, but is composed of a complex pattern of inequality rising in some countries but falling in others. Inequality has risen in many large Asian economies such as China and India, fallen in large Latin American economies such as Brazil, Mexico and Argentina, risen and fallen equal numbers of Sub-Saharan African countries, and has remained stable in Middle East and North Africa. This raises the question of why there has been this differential pattern. Policy, it turns out, has a large part to play in explaining the differences.

Overall world inequality has fallen in the last three decades because the decline in between nation inequality has dominated the rise in within nation inequality. This raises the question of which should be the dominant normative concern? To what extent can the decline in world inequality as a whole offset the increase in inequality within nations? The answer depends on the salience of and weight given to the construct of the nation state. The paper highlighted the philosophical contest between those who apply Rawlsian principles to the global setting, versus Rawls himself, who argued that Rawlsian principles applied in effect to the within the construct of the nation state. These deep but seemingly esoteric normative debates have a practical import, impinging as they do on criteria for continuing aid to countries who continue to have many millions of poor people even though on average they have grown sufficiently to cross the threshold from low income to middle income status.

A simple framework for understanding policy responses to rising inequality is to locate inequality in the consequences of labor saving technical change. This change, which has been the hallmark of the last three decades and looks set to continue into the foreseeable future, is driving up demand for skilled labor and capital relative to basic labor, thereby widening the skill premium and creating unemployment of basic labor. The political manifestations of this rising inequality are already present in the US and Europe. There are three canonical types of responses to such a technological trend. The first is to counter the demand side force by a supply side strategy of increasing the supply of skilled labor. The second is to redistribute income after the market forces have played through. The third, little discussed in the current discourse is to invest in changing the course of technical change, as has been done before in the post-war period. But each of these as a national policy option faces global constraints in a world in which business and skilled labor is mobile across borders. The need then is for global institutions which can help mitigate these externalities and thereby widen national policy space to address inequality.

Thus a global perspective on inequality, of inequality within nation states and inequality between nation states, sheds light on a number of policy issues, and raises some new ones of its own. It is an important and vibrant area for research and policy analysis.

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