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“Economic inequality, an introduction”

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Economic inequality, an introduction

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Abstract

In this paper we offer an introductory exploration of inequality, considering how political economy has analysed *economic* inequality. Its roots in market processes and in the functional distribution of income are investigated, considering the role of human capital, technological change and globalisation, and the relevance of intergenerational inequalities. We then consider the impact that public policies can have on inequalities through taxation, welfare expenditures, the provision of public services, redistribution and other actions.

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Introduction

In capitalism, inequalities are everywhere. They are founded on the division between capitalists who own the means of production and workers who sell their labour force. Capitalists and firms are engaged in competition with one another, resulting in unequal economic fortunes, further complicated by the evolving relationships between industrial and financial capital. Workers find themselves in increasingly segmented labour markets and are divided between men and women, knowledge and manual workers, white and blue collars, craft and unskilled operators, permanent and temporary workers, local and migrant labour, not to mention the reserve army of the unemployed.

These inequalities in class, professional, employment and social conditions – complicated by those in gender and ethnic status – lead to measurable inequalities in incomes, status, access to economic and social rights and to public services, opportunities for upward social mobility.

In this paper we offer an introduction of how political economy has addressed the challenge of inequality, and we focus on the analysis of *economic* inequality, considering its roots in market processes and in the functional distribution of income, the role of human capital, technological change and globalisation, and the relevance of intergenerational inequalities. We then consider the impact that public policies can have on inequalities through taxation, welfare expenditures, the provision of public services, redistribution and other actions.

Inequality in political economy

Inequality has always been – from Rousseau, to Marx, to Sen - a major reason for a criticism of the existing economic and political order; political economy perspectives on inequality have generally focused on two questions - capitalism's income distribution as the source of inequality, and the possibility of redistribution through political authority.

Much of political economy - Marxist and Keynesian – has considered inequality as a direct result of income distribution between capital and labour. Marx emphasised the contradiction between industrial capitalism's potential for progress in knowledge, incomes and wealth, and its outcome - capital accumulation for the capitalist class, and commodified labour, degraded work, limited wages and hard social conditions for workers and the dispossessed. Increasing inequalities were the result of the very nature of capitalist accumulation.

Keynesian economics asserted the link between income distribution, accumulation and growth and advocated an active role of the State in managing demand, growth and redistribution. Insights from welfare economics informed the normative models for economic policy aiming at redistribution, pointing out the trade-offs between efficiency and equity in static and dynamic contexts. By combining Post-Keynesian perspectives and attention to the role of institutions and public policies, the French Regulationist school explored the mechanisms of productivity growth and social redistribution that - in advanced countries during the "Fordist" period – made possible sustained growth and limited inequality.

Moving to an international or even global perspective, world income inequalities have been investigated in their evolution over time (Milanovic, 2005); key determinants have been identified in the different phases of development, in the patterns of global flows of knowledge, trade and finance or in countries' positions in the core or

periphery of the world system (Arrighi, 1991). Since Kuznets (1965), evidence was found of an inverted-U relationship between levels of inequality and countries' per capita income; industrialization and growth would first increase inequalities, which then would decline as a result of redistribution and more balanced growth. However, since the early 1980s, several rich countries have experienced a new increase of inequalities.

The search for explanations has led to consider more complex and specific mechanisms beyond aggregate income distribution (Atkinson and Bourguignon, 2000; Franzini and Pianta, 2009). First, functional income distribution leads to inequalities in factor incomes. Second, growing differences within wages may increase inequalities among employees. Third, inequalities in family revenues are the result of the combination of incomes from different sources and of family structures. Fourth, the redistributive effects of taxation, social incomes – pensions and subsidies - and access to public services provided outside the market shape inequalities among families in terms of net incomes and standard of living.

In recent decades, the growing shares of profits and financial rents have polarised income distribution, while rising inequalities in wages have been related to diversities in human capital and skills, technological change, international production, labour market segmentation and liberalisation, lowering of labour standards. A new literature has focused on top incomes, combining rents, profits and unprecedented high compensation from managerial or professional work (Atkinson and Picketty, 2007). The reduced resources for redistribution have often weakened the capacity of public policies to limit inequalities in family revenues. In addition, the inter-generational dimension of inequality has been introduced, examining the transfer of resources and the potential for social mobility across generations.

The role of redistribution – its desirability and effects on efficiency and justice – has been at the centre of intense debate. Liberal theories of justice have stated the primacy of individuals' freedom of choice and explored the possibilities of reducing inequality without limiting liberty. Rawls (1971) argued that in a society made of rational, self-interested individuals, a majority would accept a redistribution that improves the position of the worse off in a society. An emphasis on equality of opportunities – as opposed to equality of outcomes – has characterised recent conceptualisations, as in Roemer (1998). Moving beyond such abstract models, Amartya Sen has pointed out the complexity of inequality, rooted in societies' historical contexts, in the capabilities available to people, families and social groups in the pursuit of their objectives, in the concrete opportunities individuals have to make decisions about their lives (Sen, 1992, 2009), broadening the view of justice and the rationale for redistribution and action against specific sources of inequality.

Concepts, measures and data

The concept of inequality can be used to assess distances, between countries, between regions, between social classes, between individuals or families with different incomes (before or after the effects of taxes and public expenditure), between firms. Distances can be measured in several dimensions: income, wealth, rights, capabilities, access to services, wellbeing.

Economic inequality on an international scale has been explored in terms of differences among national average incomes, among averages weighted by population, and among all individuals (Milanovic, 2005). Over the past century - considering Gini coefficients, that sum the distance from the average of units of

observation ranked according to income - there is a clear increase in the first measure of inequality, an increase followed by a moderate reduction since the 1960s in the second one, and an increase followed by stability since the 1960s in the third one (ibid. p. 143).

Economic inequality *within* countries is characterized by large and persistent differences. Considering advanced countries, in the mid-2000's the Gini coefficient on disposable monetary income for households was between 0.38 and 0.34 for the US, Italy and the UK; ranged between 0.32 and 0.28 for Japan, Spain, Korea, Germany and France, while Denmark and Sweden were the least unequal countries, with Gini values around 0,23 (OECD, 2008; Brandolini and Smeeding, 2008).

In almost all EU countries the previous narrowing of disposable income inequality was reversed in the early 1980s, giving way to a generalized increase in inequality. Such an increase has been particularly strong in Finland, Norway, Germany, Portugal and Italy, as well as in the US. A rise in income shares by the top quintile of the income distribution (the richest 20% of households) has been a key determinant of greater inequalities in Finland, Norway, Sweden, Denmark, Germany, Austria, and Italy, as well as in the US and Canada. In the last twenty years, the average annual growth of real incomes of the top quintile has been twice as large as the one of the bottom quintile (the poorest 20% of households) in Finland, Sweden, the UK, Germany, Italy, as well as in the US (OECD, 2008).

A different measure of inequality is the ratio between the income beyond which we find the richest ten percent of population and the top income of the poorer ten percent (P90/P10). For disposable incomes of families, such ratios in the mid-1980s were 5.9 in the US, 4 in Italy, 3.8 in the UK, 3.5 in France, 3 in Germany, 2.7 in Sweden. Considering inequalities among wages and comparing 1970 and 1990, the ratio has increased from 3.2 to 4.5 in the US, from 2.5 to 3.3 in the UK and has remained at 2.1 in Sweden (Picketty, 2002). The recession that followed the international financial crisis of 2008 is likely to further exacerbate income inequalities in many countries (ILO, 2009).

A comparative study of advanced and developing countries (Cornia, 2004) found that most countries – with the exception of Latin America and part of Sub-Saharan Africa – experienced decreasing inequalities from the 1950s to the 1970s, with a new rise since the 1980s. Such a growth was particularly marked in post-Socialist countries of Eastern Europe, while a moderate rise is found since the 1980s in Asian economies and in most Latin American countries. In the largest Asian countries – China and India – a complex pattern has emerged, with rapidly rising incomes – and inequalities - in urban areas and a modest rise of incomes – and inequalities - among rural population (World Bank 2006).

While most studies have focused on income inequality, there is some evidence on the distribution of wealth (Jantti et al 2008; OECD 2008). The Gini coefficients on household wealth (net worth, equal to total assets less debt) in years around 2000 were 0.77 for the US, 0.73 for Germany, 0.67 for Canada, 0.62 for Sweden and 0.60 for Italy. Considering financial assets alone, the US climbs to 0.89 and Germany to 0.82. Non financial assets (including houses) are slightly less concentrated (0.73 in the US and 0.75 in Germany). In general, wealth appears to be twice as much concentrated as income in rich countries. In the US and Germany the net worth of the 90th percentile (the richest ten percent of households) is more than ten times the net worth of the median person (the person between the fifty per cent richer and the fifty per cent poorer); in Sweden the value is eight, in Italy four (considering the diffusion of home ownership).

The forces shaping income inequalities

Inequalities in income are the result of the overall relationships between capital and labour and of changes taking place in production systems, labour markets, social variables and in the redistributive activity of the welfare state.

A first process involves the functional distribution of income between wages, profits and rents (see the chapter on Income distribution in this volume). As a result of changes in the balance of forces between labour and capital, since 1980 most advanced countries have experienced a significant reduction of the labour share in GDP, of the order of ten percentage points (Salverda et al, 2009, ch.5). Labour has been less able to capture an adequate share of the economy's productivity gains; since 2003 one third of European workers has experienced a decline in real wages, and almost two thirds saw their wages growing, on average, less than their labour productivity. Conversely, capital income has increased its share thanks to several factors. First, liberalisation of capital movements, growing financial activities, the search for short-term speculative gains, the ability to elude national taxation have led to a growing share of capital. Within this rise, financial rents have grown fastest; in the US the ratio of aggregate profits of the financial sector to profits of non-financial activities has moved from 20 per cent in the 1970s to 50 percent after 2000 (Glyn 2006, ch.3).

Second, technological change is likely to favour profits over wages; the former are driven both by new products and by restructuring through the diffusion of new processes and wage depressing job reductions, while wages expand only in research-intensive industries, according to a study on EU manufacturing and services (Pianta and Tancioni, 2008).

Third, global production systems have further favoured profits; in advanced countries the relocation of production abroad (or even the threat of relocation) has depressed domestic wage dynamics, especially for blue collars and low-skilled white collar workers (Feenstra and Hanson, 2003). Globalisation has doubled the labour force available in the world economy and lowered the overall capital/labour ratio, leading to a greater (relative) scarcity of capital, resulting in higher profits and inequality; increasing trade, greater openness of national economies and tariff reductions are likely to contribute to greater inequalities within countries (Salverda et al., 2009, ch.23).

A second process concerns labour market mechanisms and the way they influence wage dispersion among workers on the basis of education, skills, professional groups, types of labour contracts, presence of unions and, more generally, through the regulations of labour markets; these outcomes also reflect the effects of technological change and globalisation pointed out above. Changes in the *relative* composition of employment by professional skills have been interpreted by mainstream economics as *skill bias technological change*, i.e. innovations replace unskilled labour with workers with higher competences and job opportunities for blue collars worsen; the resulting inequality is presented as a 'natural' effect of technological change. However, advanced countries did not experience a general upskilling as a result of technological change; rather, a strong polarisation of the employment structure has emerged, with jobs offered mainly to managers and professionals and to unskilled manual workers, while job losses have mainly concerned clerks and craft manual workers. A similar polarisation is evident in the distribution of wages in Europe, as relatively few top managers (classified as employees, and not as capitalists) and professionals have

obtained unprecedented high incomes. Conversely, the lower tail to the wage distribution has been further lowered by the diffusion in several countries - Italy, Spain, Ireland and Germany in particular - of part-time, temporary and outsourced work; this is the result of policies of precarisation of employment that have led to the emergence also in Europe of "working poors" - people with jobs who remain in conditions of poverty. Increasing international integration - through trade, foreign investment and cross border organisation of production - has further contributed to such labour market outcomes, especially in some European countries (Franzini and Pianta, 2009).

A third process concerns the inter-generational persistence of inequality and the role that higher human capital can play in assuring upward social mobility. Approaches emphasising equality of opportunities have pointed out that differences in human capital can lead to 'acceptable' income inequalities. In fact, in several advanced countries income disparities across generations are highly related to current inequalities, showing a persistence - rooted in family wealth, privilege and networks of connections - stronger than the one expected by the advocates of social mobility through "equal opportunities" and market processes (Franzini and Raitano, 2009). These mechanisms do not operate in isolation; for instance, welfare expenditures in education may alter, in the medium term, the supply of skilled workers and this, in turn, may change the degree of wage dispersion in the labour market. Moreover, the countries with higher current inequality seem to be the same where the intergenerational transmission of inequality is higher. This suggests that fighting current inequality may help make social mobility a more concrete possibility.

Finally, the complexity of factors leading to a rise of inequality since the 1980s provides no clear evidence that higher inequality can be favourable to growth. Conversely, economic growth cannot assure a lower inequality, as trickle-down effects have been modest. Therefore, inequality and growth should be considered as relatively independent phenomena.

Welfare and policies on inequalities

Inequalities in terms of disposable income and living standards are the results of state actions that can mitigate the outcomes of market processes. Governments can act through taxation, social transfers and the provision of in-kind services. National experiences widely differ, according to welfare regimes. Public social spending ranges from about 25 percent of GDP in Nordic and Continental Europe regimes to 19 per cent in Anglo-Saxon countries, where a high share of smaller overall transfers (43 per cent) is targeted to the bottom quintile of income earners. While there are difficulties in assessing the impact of in-kind transfers, estimates of the impact on inequalities of public services - in particular universal access to education and health - suggest that the on average they reduce the Gini coefficient on disposable income by 37 percent in countries of the Nordic welfare regime and 24 percent in both the Anglo-Saxon and Continental Europe (where Italy and Spain are included) groups (Salverda et al, 2009, ch.25).

Concern about the negative effects on growth of high public deficits, progressive taxation and a generous welfare system has led to policies that have weakened the extent and the effectiveness of redistribution through the welfare state and have contributed to worsen inequality.

In order to limit and reverse such pattern, a comprehensive policy should address the challenge of inequality, combining incomes policies protecting real wages and greater

fiscal pressure on capital incomes, with action of different fronts, including the supply side (where the forces of finance, technology and globalisation lead to increasingly unequal market outcomes), labour markets (reversing the weakening and precarisation of labour), the tax system and public expenditure, restoring their key redistributive role.

References

- Arrighi, G. (1991), World income inequalities and the future of socialism, *New Left Review*, 189, 39-65.
- Atkinson, A. and Bourguignon, F. (eds) (2000), *Handbook on income distribution*, vol.1, Amsterdam, Elsevier.
- Atkinson, A. and Picketty, T. (eds) (2007), *Top incomes over the twentieth century*, Oxford, Oxford University Press.
- Brandolini, A. and T. M. Smeeding (2008), Inequality: International Evidence, in Durlauf S. N. and L. E. Blume, *The New Palgrave Dictionary of Economics*. Basingstoke: Palgrave Macmillan.
- Cornia, A. (ed.) (2004), *Inequality, growth and poverty in an era of liberalization and globalization*, Oxford, Oxford University Press.
- Feenstra, R. and G. Hanson (2003), Global production sharing and rising inequality: a survey of trade and wages, in E.K. Choi and J. Harrigan (eds) *Handbook of international trade*, Blackwell, London.
- Franzini, M. and M. Pianta. (eds) (2009), Inequality: mechanisms and effects. Special issue, *International Review of Applied Economics*, 3.
- Franzini, M. and M. Raitano (2010), Persistence of inequality in Europe: the role of family economic conditions, *International Review of Applied Economics*, 3, 345-366
- Glyn, A. (2006), *Capitalism unleashed*. Oxford, Oxford University Press.
- ILO (2009), *World of Work Report 2008. Income Inequalities in the Age of Financial Globalization*. Geneva, ILO.
- Jantti, M., E. Sierminska and T. M. Smeeding, (2008), The joint distribution of household income and wealth: evidence from the Luxembourg Wealth Study. OECD working paper, 65.
- Kuznets, S. (1965), *Economic growth and structure: selected essay*. London, Heineman.
- Milanovic, B. (2005), *Worlds apart. Measuring international and global inequality*. Princeton, Princeton University Press.
- OECD (2008), *Growing Unequal? Income distribution and poverty in OECD countries*. Paris, OECD.
- Pianta, M. and M. Tancioni (2008), Innovations, wages and profits, *Journal of Post Keynesian Economics*, 2008, Fall, Vol. 31, No. 1, 101-123.
- Picketty, T. (2002), *L'économie des inégalités*, Paris, La Découverte.
- Rawls, J. (1971), *A theory of justice*, Cambridge, Harvard University Press.
- Roemer, J. (1998), *Equality of opportunity*, Cambridge, Harvard University Press.
- Salverda, W., B. Nolan and T. Smeeding (eds) (2009), *The Oxford Handbook of Economic Inequality*, Oxford, Oxford University Press.
- Sen, A. (1992), *Inequality re-examined*. New York, Russell Sage Foundation.
- Sen, A. (2009), *The idea of justice*. Cambridge, Harvard University Press.
- World Bank (2006), *World Development Report: equity and development*, New York, Oxford University Press.