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"EXPLAINING INEQUALITY IN TODAY'S CAPITALISM"

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Explaining inequality
in today's capitalism

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Abstract

Inequality within advanced countries has returned to levels typical of a century ago. At the global level it remains extremely high despite the rapid growth of major developing countries such as China, India and Brazil. This makes inequality a major economic issue, social problem and political challenge in today's capitalism. However, economic inequality is the object of limited research efforts and attracts modest attention in the political arena.This is the result of several factors.
Mainstream approaches view inequality as a necessary condition – or, at best, an unfortunate side effect - for achieving the more general objectives of economic growth and market efficiency. Most studies emphasise that inequality is to a large extent the consequence of international forces laying beyond the reach of policies by nation-states. More importantly, today's inequality is the result of a variety of processes that have seriously increased its complexity, with major changes in its nature and mechanisms, compared to past decades. To the fundamental divide between capital and labour in the distribution of income between social classes and groups, new mechanisms have been added, that have fuelled income inequalities among individuals, rooted in the rise of top incomes, technological change, international production, labour markets, influence of families of origin and lack of intergenerational mobility.
In this paper we propose an overall interpretation of the trajectory of inequality. The *functional income distribution* that leads to inequalities in factor incomes, with an increasing divide between the growing share of profits and financial rents – free to move across national borders, escape taxation and search for speculative gains – and the dwindling share of wages, nation-bound and unable to escape taxes. The specificity of *top incomes* – that combine rents, profits and "superstar" labour compensation complicates this picture with the effects of pro-rich policy changes.
Inequalities have also strongly increased *within wages*, resulting from several factors. Education has an obvious influence, but plays a much smaller role than mainstream views would expect. Skill differences are increasingly important, and need to be examined in the context of specific professional groups, rather than with wide generalisations. Industry specificities, technology and international production do play a role, but in complex ways, depending on the nature of innovative strategies, local competences, market power and demand dynamics. Labour market arrangements – unionisation, presence of minimum wages or national contracts, diffusion of temporary or part-time labour contracts, etc. – are increasingly important factors in explaining the low pay of many young and low-skilled workers. Outside labour markets and the opportunities for social mobility promised by education, the family of origin remains a major determinant of individuals' education and incomes, with an increasingly strong persistence of inequality across generations.
The interpretation we provide offers a new explanation of the nature of today's economic inequalities, of its consequences, and possible remedies.

Keywords: *Inequality, Distribution, Welfare*
JEL classification: *D31, D33, E24, I38*

Introduction

Inequality within advanced countries has returned to levels typical of a century ago. At the global level it remains extremely high despite the rapid growth of major developing countries such as China, India and Brazil. This makes inequality a major economic issue, social problem and political challenge in today's capitalism. However, economic inequality is the object of limited research efforts and attracts modest attention in the political arena; despite important advances in the knowledge of its dimensions, a convincing understanding of the mechanisms at its roots is still lacking.

A first possible explanation is that, in mainstream thinking, economic inequality is conceived as a necessary condition – or, at best, an unfortunate side effect - for achieving the more general objectives of economic growth and market efficiency. This highly questionable conviction can explain part of the neglect fallen on the analysis of high inequality and on policies addressing it.

A second (and related) factor is the perception that inequality is to a large extent the consequence of *international or global forces*, laying beyond the reach of nation-states where policy measures for countering inequality can best be designed and implemented. Indeed, the forces shaping inequality a century ago were mainly rooted in the income distribution of national economies; today, they tend to be to a significant extent global processes – increased cross-border flows of capitals, goods, workers and knowledge; the rise and fall of industries and specializations; international production by multinational firms; wage setting influenced by distant locations, etc. The ability of national policies to address such developments has greatly diminished and national governments have apparently chosen to accept their powerlessness and to make their citizens learn to live with high inequality, rather than striving to understand and counter the forces of inequality and their most unacceptable outcomes. Moreover, no international political authority has emerged with the mandate to address and regulate the unequal outcomes of cross border processes.

There is, however, a further and more general reason for the lack of explanations for today's inequality. It is the high *complexity* of a phenomenon that is changing over time and has now a different nature from past decades. For most of the 20th century the roots of inequality were in the transition from agricultural to industrial societies, in the resulting class structure and in the functional distribution of income between capital and labour. Today, capitals and firms are engaged in greater competition and experience unequal economic fortunes. Labour markets are increasingly segmented and workers are divided by gender, between white and blue collars, knowledge and manual workers, permanent and temporary employees, local and migrant labour, not to mention the various forms of unemployment.

A century ago the class structure of societies could broadly account for inequalities in incomes, status and opportunities. Today class identities are blurred, inequalities within workers are deeper and new aspects play a role. The inequality experienced by individuals is shaped by a combination of factors including class, gender and ethnic status, education and professional skills, type of employment and access to social rights and public services, opportunities for social mobility within and between generations. In the past being member of a social group, in particular of the class of workers rather than of capitalists, was enough to make a reliable prediction as to one's position in the social ladder. Today, individuals' positions are the result of a variety of factors, new mechanisms shape the economic conditions of particular groups and inequality within members of relatively homogenous social categories may be very high. This overlapping of dimensions of inequality - with individuals located at different intersections of such characteristics - results in a strong complexity which defies old approaches to inequality. Such complexity may have discouraged academic research, social mobilitazion and policy action. As a result there is only limited understanding of the mechanisms of inequality, and of the actions that could effectively counter it.

This paper explores the crucial features of today's inequality which can highlight its complexity and provide a better understanding of its mechanisms. We argue that crucial aspects of today's inequality are not considered by mainstream approaches and that no overall and integrated explanation has been produced. In particular, we want to draw attention to the following specific dimensions of inequality: the changing relationship between functional and personal distribution of income; the dynamics and specificities of top incomes; the large share of earnings inequality not explained by human capital and the role played by labour contracts and institutions; the importance of industry specificities in technological activities, international production and social relations in shaping wage inequality; the relationship between current inequality and its intergenerational transmission; the weak response of the welfare state and of the political process.

In the next sections we provide an overview of the changing views of inequality in economic studies, we summarise the main quantitative evidence on the different dimensions of inequality and we focus on the key features that are needed to improve or amend existing analyses of inequality, leading to a more comprehensive explanation.

Changing views of inequality

Economic inequality is a changing phenomenon; its forces evolve over time and even a similar level of disparities may be the results of different mechanisms and patterns of distribution. Economic ideas on inequality have evolved accordingly.

For Classical economists inequality was defined by the class structure of industrial capitalism and by the distribution of income between capital and labour. The relationships between patterns of distribution, economic growth and social reproduction were a key concern in their analysis industrialisation.

Marx emphasised the contradiction between industrial capitalism's potential for progress and its outcome - capital accumulation for the capitalist class, and commodified labour, limited wages and hard social conditions for workers and the dispossesed. Increasing inequalities – relative to the poorer but more equal pre-industrial societies - were the result of the very nature of capitalist accumulation.

Problems of distribution and inequalities "disappeared" in Neoclassical approaches behind widely accepted – and surprisingly long-living - assumptions. At the macroeconomic level, the compensation of factors of production was assumed to be equal to their marginal productivity; at the individual level, incomes were simply the result of choices on work, investment and consumption that resulted from individual utilities. Freedom of choice and market efficiency could justify any (unequal) distributional outcome, with no consequence for economic growth, and no room for the principles of social justice, human rights, nor for redistributive policies. The Great Depression of the 1930s proved how unrealistic such assumptions were and how disastrous their policy implications.

In the post-war period, the link between income distribution and growth returned at the centre of Keynesian approaches, with two distinct mechanisms; on the demand side, wages were seen as a major source of aggregate demand; on the supply side, accumulation – financed by savings – was needed to expand productive capacities. The main concern of Kaldorian models (Kaldor, 1956) and post-Keynesian perspectives (Robinson, 1960) was to identify the distributive patterns that were consistent with sustained growth, recognising a major role for government action in supporting both accumulation and demand – through public expenditure and redistribution that could support the lowest incomes and reduce inequality. Moreover, 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.

The empirical regularities of such processes were pointed out by Kuznets (1965) who documented the inverted-U relationship between levels of inequality and countries' per capita income; industrialization and growth would first increase inequalities, which would then decline as a result of redistribution and more balanced growth.

Indeed, as a result of economic growth, social change and public policies for redistribution and welfare, Europe and the US experienced a reduction in inequalities in the 1970s; one of the side effects – possibly - was that for several decades inequality became a rarely explored field of economic research, with few specialized studies.
A new attention emerged in the early 1990s – following the new rise in inequality that had started the 1980s as a result of neoliberal policies – with studies that moved from the functional distribution of income between social classes to inequalities among *individuals*. Class divisions had become less clear cut and homogeneous, and gender, ethnicity, education and professional qualification had become major factors in explaining the personal distribution of income. New studies addressed these issues and started to measure such more complex patterns of inequality among individuals (Atkinson and Bourguignon, 2000; Brandolini and Smeeding, 2008).
At the same time, philosophical and economic perspectives started to address the issues of justice, ethics, equality of opportunities, inter-generational inequality. Liberal theories of justice 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 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. Such perspectives on inequality, while maintaining a strong ethical emphasis on economic and social justice, have highlighted the complexity of economic and social mechanisms leading to inequalities in advanced countries.
These approaches have moved together with a broader recognition that inequality cannot be confined to incomes and economic factors, and that access to education and health, as well as social conditions play a role in shaping inequalities among individuals. While the multidimensionality of inequality has been recognized, major challenges remain in conceptualising and measuring such variety of factors. At the same time, incomes appear to be highly related to several of these social conditions and economic inequality remains a major field of research. Nevertheless, an opening to interdisciplinary approaches is needed, with collaboration between economists, sociologists, political scientists, statisticians and philosophers, just to mention the ones most actively involved (see Grusky and Kanbur, 2006).
The context in which inequality can be investigated has also evolved, moving from national to international perspectives. World income inequalities between countries and regions have been investigated in their evolution over time (Milanovic, 2005; Cornia, 2004; World Bank, 2006); key determinants have been identified in the different phases of countries' development, in the global flows of knowledge, trade and finance, or in countries' positions in the core or periphery of the world system (Arrighi, 1991).
These studies contributed to the debate on the distribution of the benefits of globalisation and questioned the economic rationale, the social sustainability and the political acceptability of extremely wide income inequalitites at the global level. The difficulty of empirical investigations on inequalities among the world's individuals has led to approaches that have either focused on differences among countries (considering their average per capita income), or on inequalities among individuals within a country. While in the rest of this paper we will focus on the latter, the two dimensions have to be considered as complementary approaches needed to understand the dynamics and patterns of unequal economic outcomes of increasingly global processes.
Alongside globalisation, the rise of finance has introduced a new dimension in the studies on inequality. In the last two decades, the growing shares of profits and financial rents have polarised income distribution in advanced countries. A new literature has focused on *top incomes*, combining

rents, profits and unprecedented high compensations for top managers and "superstars" in selected professions, from entertainment to sports (Atkinson and Picketty, 2007).

In parallel, the rapid accumulation of financial and real estate assets by the richest individuals has attracted attention to inequalities in *wealth*, and an emerging stream of research is now exploring – with a major effort in data collection - wealth disparities and their link to inequalities in incomes (Sierminska, Brandolini and Smeeding, 2006).

Over the last two decades inequality among wage-earners has also increased substantially – even once we exclude the effects of top managers; a large literature within the economic mainstream developed, arguing that the rising wages of highly skilled white collars reflected the greater labour productivity of workers capable to use the new Information and Communication Technologies and that wage inequalities were the result of *skill biased technical change* (Acemoglu, 2002). These studies ignored that advanced countries were not experiencing a generalised "upskilling" of jobs, from blue to white collar employment, but rather a polarisation was taking place with more jobs for managers and professionals and for the lowest skills – manual workers and ancillary jobs. Losses in jobs and wages were concentrated among office clerks (the low skilled white collars) and skilled factory workers (the most qualified blue collar employees). While technological change does have an impact on inequality, it is arguably more complex that the *skill bias* view (Nascia and Pianta, 2009) and is combined with the effect of increasing foreign trade and investment (Feenstra and Hanson, 2003).

Moreover, higher wage inequality cannot be explained without consideration of developments in labour markets, including the rapid rise of temporary and precarious jobs, the effects of migrations, the fall of unionisation and of trade union influence (Checchi and Garcia-Penalosa, 2008). More generally, the last two decades have seen broad changes in capital-labour relations that have been summarized as labour's "defeat" in income distribution (Glyn, 2006).

Today's inequality in advanced countries is therefore the result of a set of different and complex mechanisms that have been investigated – conceptually and empirically – by a new wave of studies (Atkinson and Bourguignon, 2000; Franzini and Pianta; Salverda et al, 2009); the rest of this paper provides a map for understanding this complexity and multidimensionality, and suggests an interpretation of the major mechanisms and consequences of economic inequality.

Summing up this trajectory of the views of inequality, we can suggest that economic analysis has moved from a focus on the *functional* distribution of income between capital and labour – typical of periods of industrialisation with clear class divisions – to a focus on the *personal* distribution, where individuals' incomes in advanced economies are shaped by a variety of factors – education, professional skills, gender and ethnicity, as well as class. The assumption in the last two decades was that advanced economies and widespread education offered equality of opportunities for all, and that social mobility had become the rule rather than the exception. More recent studies however have disputed such views with evidence that inequality persists from one generation to the next, and that (apparently) more equal opportunities do not reduce unequal outcomes in income distribution among individuals.

These challenges – the complexity of the mechanisms leading to inequality, its multidimensionality and need for interdisciplinary approaches, the importance of its inter-generational persistence and the need for fresh policy apporaches – are discussed in detail in the rest of this paper.

Concepts, measures and data

Inequality is an apparently easy, but in fact a slippery concept. We need to define it carefully, measure it with appropriate data, and relate it to relevant phenomena. The concept of inequality can be used to assess distances between countries (as in world income inequalities); between social classes (as in the functional distribution of income); between workers with different skills and wages; between individuals or families with different incomes (before or after the effects of taxes and public expenditure). Distances can be measured in several dimensions, and inequality can refer to income or wealth, as well as to rights, capabilities, access to services, measures of wellbeing. Much progress has recently been made in measuring such distances, their level and changes over time. The most frequently used indicator is the Gini coefficient, that sums the distance from the average – the expected value in case of perfect equality - of units of observation ranked according to income. The Theil index has also been used as it allows a decomposition of key elements contributing to inequality. This section provides an overview of concepts, measures and major trends.

World (and European) income inequalities

Economic inequality *between* countries has been explored on the basis of three types of measures: differences between national per capita incomes; inequality between country averages weighted by population; and inequality among all the world's individuals (Milanovic, 2005). Over the past century - considering Gini coefficients - there is a clear increase in the first definition of inequality, an increase followed by a moderate reduction since the 1960s in the second one, and an increase followed by a stability since the 1960s in the third one (ibid. p. 143).
The latter measure – inequality among individuals living in different countries – appears as the most solid indicator, although it poses several methodological problems - comparability of sources, conversion of currencies, consideration of purchasing power, choice of equivalence scales, etc. – and the adopted solution may influence results. A major improvement in this direction has been obtained at the European level, with studies on inequalities that have considered the EU as if it were a single country. Based on data around the year 2000, a first study found that inequality in the European Union is quite high but lower than in the US; the Gini index is equal to 0.33 in the EU25, while is 0.37 in the US (Brandolini, 2007). A more recent estimate based on a different methodology and on more recent data (2005) concludes that inequality in Europe is significantly higher and not much different from that in the US; the EU-wide Gini coefficient is 0.369, not very far from 0.372 which is the level for the US (Giammatteo, 2009). Even if such figures need further refinement, they support the conclusion that Europe as a whole is characterized by high inequality, with little difference from the US. The need to address high inequality is therefore a European-wide challenge and not a specific problem of few European countries with an "Anglo-Saxon" model of capitalism.

Inequalities in the functional distribution and in disposable income within advanced countries

Inequality between capital and labour is reflected in the functional distribution of income. A study of eight major advanced countries (Glyn, 2009) found that labour's share ranges between 70 and 80% of net national income; it has increased during the 1970s, and has fallen since the 1980s, shifting to capital a rough estimate of 10 percentage points of total income. However, calculations differ depending on the variables used (GDP, net income or value added of the private sector) and on methodologies adopted (for treating the financial sector, capital consumption, income of self employed, etc.). Moreover, data for the US show a substantial difference when the income of the top 1% of wage earners – that include top managers – is excluded from labour income; all employee compensation shows a modest decline since 1980, while compensation of the bottom 99% of wage earners experiences a fall of close to ten percentage points in the net value added of the business sector. In spite of methodological problems, a fundamental shift in capital-labour relations has emerged since the 1980s; profits have rebounded, financial rents have substantially increased, in a few countries a higher share has gone to the self-employed, and the wage share has fallen; the fall in labour's compensation is parallel to the rise in personal income inequality (ibid., p.122).

Economic inequality among individuals *within* countries is characterized by large and persistent differences in *levels*. 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).

Over the past 25 years almost all EU countries have experienced a worsening of economic inequality. The previous narrowing of disposable income distribution 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 upper limit 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 and increase the problems of unemployment and poverty in many countries (ILO, 2009).

Moving beyond Europe, a broad 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).

Inequalities in wealth

While most studies have focused on income inequality, new evidence has become available 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).

Inequalities in labour incomes and disposable incomes

The high and growing inequalities in disposable incomes shown above are mainly the result of market processes. In almost all advanced countries the distribution of market income has become much more unequal between mid-80's and mid-2000's. Redistribution by the Welfare States has

only partially offset this tendency, making the worsening of inequality in disposable income less pronounced and generalized than inequality in market incomes.
Several developments are responsible for higher market income inequality, the importance of each being different in each country. Among the more significant are: inequality within self-employed, inequality between capital and labour, inequality within labour incomes. Almost everywhere in the Western world, the latter type of inequality has substantially increased.
Mainstream interpretations have argued that this is largely due to differences in skills and human capital, but new research suggests that in most European countries inequality within groups of workers homogeneous in terms of education is very high (Franzini, 2010). More precisely, when a decomposition of inequality in labour incomes by educational attainments (considering three educational levels: lower secondary, upper secondary and tertiary) is carried out using the Theil index, the "between" component – comparing groups with different education – is much less important than the "within" component – inequalities among workers with the same education - that explain almost everywhere in European countries 80% or more of overall inequality. Labour income inequality not explained by human capital is important also for the analysis of how current and intergenerational inequalities interact.

Current explanations of income inequalities

In order to explore the complexity of the mechanisms shaping individuals' incomes and the multidimensional nature of inequalities, we investigate in this section the existing explanations of the forces shaping income inequalities.

Capital vs.labour

The functional distribution of income between wages, profits and rents is a fundamental process shaping inequalities among social classes and groups receiving different types of income. We have already seen above that, since 1980, most advanced countries have experienced a significant reduction of the labour share in GDP, of the order of ten percentage points. What can be the forces leading to such a substantial distributional shift? Studies on the increase of *capital income* have identified a few factors. First, neoliberal policies of liberalisation of capital movements have led to a surge of capital flows - for foreign direct investment and for the acquisition of financial assets - driven by a search for higher profits and for inflating "shareholders' value", with the ability to elude the national taxation of profits and rents. Second, the growth of financial activities – the most profitable, mobile and volatile form of capital – has dominated investment patterns. The result is that in the US the ratio of aggregate profits of the financial sector to profits of non-financial activities has increased from 20 per cent in the 1970s to 50 percent after 2000 (Glyn, 2006, ch.3). The expansion of finance has led to the creation of increasingly complex markets for credit, stocks, bonds, real estate, currencies, futures, commodities, derivatives, etc., driven by a search for short-term speculative gains and leading to major bubbles and to the major financial collapse of 2008. Since then, however, there is little evidence of a substantial reduction of the share of income appropriated by financial rents in major advanced countries.
Conversely, the decline in the share of labour in the functional distribution of income appears to be the result of several factors. Real wages have fallen for most workers, in most countries and industries. 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 (Bogliacino, 2009). This fall in labour share and the associated greater inequalities among wage earners have been investigated by a variety of studies on the role of technology, globalisation and labour markets; they are examined in turn.

Technological change

In advanced countries, technological change has been characterised by the emergence of the new techno-economic paradigm based on Information and Communication Technologies (ICTs), with a growing role played by the production and use of knowledge, by R&D and innovation, and by the diffusion of new organizational forms (Freeman and Louca, 2001). This has led to the decline of old industries - often with a workforce of medium skilled, unionised workers - and the emergence of new industries and firms with high opportunitites for Schumpeterian profits associated to temporary monopolies due to technological advantages.

The rising inequalities in jobs and wages have been addressed by a large literature within the economic mainstream suggesting that *skill biased technical change* is the main explanation (Acemoglu, 2002). The argument is that the diffusion of ICTs over the past twenty years has led to an upskilling of employees - measured by the ratio of white to blue collar workers, or years of education - and to higher wages for the workers with skills that are complementary to the new technologies (and therefore increase workers' labour productivity).

This interpretation rests on the idea that wage dispersion is rooted in technical change at the firm level, as innovative firms substitute low-skill workers with high-education, high-wage workers whose competences are complementary to ICTs. The mechanistic view of technology and its effects is a major limitation of this approach; all innovations are assumed to to incorporated in physical capital and are expected to be complementary to high skills. As a consequence, both the high-skill/low-skill employment ratio and the wage premium associated to high skills are expected to increase, and are considered as the sole drivers of higher wage inequality.

More careful analyses have shown that in fact a *polarization* of employment is taking place (Autor, Katz and Kearney, 2006; Moose and Manning, 2007), rather than a general upskilling, but a deeper understanding is needed of the diversity of patterns of technological change and of their consequences on the evolution of jobs, skills and wages.

International production

The increasing international openness of economies – with greater flows of trade, knowledge and investment – is a major mechanism affecting the dynamics of wages and profits, as well as inequalities among employees.

A large literature has shown that 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). In the new system of international production firms tend to maintain in advanced countries highly skilled activities of management. R&D and finance, with relatively few highly paid employees, while reducing jobs and wages for medium and low skilled office and factory workers, whose jobs are more liekly to be transferred in low wage developing countries; the outcome in rich countries is a rise in wage inequality, and greater polarisation of jobs and skills.

Important effects have emerged also on the distribution between profits and wages. It has been argued that 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 lower wages (Freeman, 2009). The same analysis has shown that increasing trade, greater openness of national economies and tariff reductions are likely to contribute to greater income inequalities within countries.

The effects of technology and international integration on employment and wages are closely connected, as firms facing international competition introduce more innovations, and more innovative firms have a competitive advantage in foreign markets. A study comparing the effects of technology and trade on the reduction of low skilled workers - in the case of US industries in the

1990s – found that the impact of innovation was dominant, while international trade appeared to play a minor role (Berman, Bound and Machin, 1998).
While the evidence is still fragmentary and the mechanisms at work are particularly complex, two decades of increasing international integration have led, in advanced countries, to a more polarised structure of employment and wages. Not enough attention, however, has been devoted to the skill composition of evolving employment structures, to the chances of upward mobility for the low skilled, and to the overall dynamics of inequality among wage earners.

Labour market institutions

Given the technology and production system in a country, labour market mechanisms influence wage dispersion among workers on the basis of education, skills, professional categories, types of labour contracts – permanent or temporary; full-time or part-time -, effects of migrations, presence of unions and, more generally, through the regulations of labour markets.
In the last decade a major polarisation within labour markets of advanced countries has emerged between relatively few top managers (classified as employees, and not as capitalists) and "star professionals" that 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 poor" - people with jobs who remain in conditions of poverty. However, little quantitative evidence is so far available on the effects of different labour contracts and migrations – for which limited data are available.
On the other hand, increasing attention has been devoted to the impact of labour market institutions, considering the forms and degree of unionisation, the presence of national bargaining or minimum wage legislation, and other regulations of labour markets. Research has found that a strong union presence is associated to lower wage inequality - but causality links are not clear – and bargaining coverage and minimum wage are potential substitutes (Checchi and Garcia-Penalosa, 2008; Visser and Checchi, 2009). The fall in unionisation in the US and Europe, the weaker bargaining power of unions and legislation that has fragmented labour contracts and reduced bargaining coverage appear to be all factors that can contribute to explain the rise of wage inequality among employees.

The role of welfare states

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 reduction of inequalities due to the presence of public services – in particular universal access to education and health – suggest that the average reduction of the Gini coefficient on disposable income is 37 per cent 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 (Esping-Andersen and Myles, 2009).
Recent policy changes – efforts to limit high public deficits and debt, reduced taxation, privatisation of services, reduction of social rights - have weakened the extent and the effectiveness of redistribution through the welfare state. They result from concerns on the negative effects on growth in open economies that may come from high public deficits, progressive taxation and a generous welfare system. In this way, such policy changes have contributed to the increase in inequality shown above.

New explanations for the mechanisms of inequality

In order to overcome the limitations of previous approaches, we identify in this section key mechanisms at the root of today's inequality. We summarize here the concepts and analytical perspective needed to investigate them, and the preliminary evidence that is available.

The importance of countries' history and institutions

Too much of the current literature deals with inequality as an outcome of market processes that are indifferent to institutions and history. Conversely, the most careful studies have pointed out the persistence of differences in levels of inequality (and in the policy tools for countering it) across advanced countries. The focus of our argument is on European countries, that share broadly similar institutions, policy-setting mechanisms and, in most cases, even a currency, in spite of persistently different welfare models. Much bigger differences exist with advanced countries outside Europe and such institutional factors should be considered in a possible extension of the analysis we propose here.

The rise of top incomes

We have already seen that in advanced countries a major part of today's inequality is due to the fast rise of *top incomes* – those of the richest 1% or 5% of the population – that result from a combination of sources incomes that have all experienced rapid increases in the past two decades (Atkinson and Picketty, 2007).
Within "wage" incomes an unprecedented high compensation has gone to top managers and "superstars" in selected professions – lawyers, architects, well-known people in the media, entertainment and sports. The richest individuals have also benefitted from the rise of the share of profits in national income, and from the exceptionally high financial rents fuelled by speculative gains in increasingly complex (and fragile) financial markets. At the same time, traditional national policies that had contained the rise of top incomes have been removed: inheritance taxes have been cancelled or greatly reduced in most countries; the progressive nature of income taxes has been reduced and tax rates on top incomes have been cut everywhere; tax loopholes have been granted to firms and rich individuals. The liberalisation of international financial flows – and the lack of fiscal harmonisation even in Europe - has also contributed to this outcome, with increasing opportunities for the rich to report their incomes in "tax heavens" with minimal tax rates.
All these phenomena have their origin in the neoliberal policies of deregulation and liberalisation started in the 1980s and have created entirely new mechanisms of (extreme) inequality unknown in the previous decades. Moreover, the overlapping of their effects has been dramatic, and has led to the booming of incomes of the richest individuals – even in the recession that has followed the financial crisis of 2008. The economic and policy-related mechanisms that have skewed the distribution of income in favour of the richest individuals require specific studies linking the variety of factors that have played a role in these developments.

The diversity of technological change and the polarisation of jobs, skills and wages

Changes in technology – together with those in international integration, production systems and labour relations - are indeed affecting the evolution of jobs, skills and wages, but in ways less deterministic than those argued by the *skill biased technical change* view. Building on neo-Schumpeterian perspectives, we can argue, instead, that technological change is highly uneven across industries and it is important to distinguish between strategies of *technological competitiveness* based on new products, and of *cost competitiveness* based on new processes,

considering their different effects on jobs, skills, wages and profits. A few recent studies have examined the operation of these mechanisms in Europe.
In investigating the *skill composition of employment*, the idea of a general upskilling of the workforce does not stand a closer scrutiny. When the white collar/blue collar ratio or the high/low education ratio are replaced by data on employees broken down in the main professional groups - Managers, Clerks, Craft workers and Manual workers – a clear pattern of *polarisation* emerges. A study on 36 manufacturing and service industries for five EU countries for the period 2000-2003 shows that jobs creation is found for managers (+2% a year) and manual workers (+1.2%) only, while job losses affect clerks (-0.2%) and skilled workers (-2%). The explanations of such dynamics is rooted in the different technological strategies of industries; product innovation and high education lead to more jobs for high skill categories; cost competitiveness and process innovation strategies destroy jobs for craft workers (Nascia and Pianta, 2009).
An investigation on the *dynamics of profits and wages* in manufacturing industries - covering ten European countries in the period 1994-2001- (Pianta and Tancioni, 2008) has shown that the real growth of wages per employee was less than half that of total profits. In high innovation sectors, profits increased by close to 8 per cent a year, three time as fast as wages. In low innovation industries profits growth was 3.5 per cent, again more than twice that of wages. The parellel explanations of profit and wage dynamics show that the distributional conflict is a strong factor in the evolution of incomes and that both profits and wages grow on the basis of increases in labour productivity. Wages tend to grow faster in the sectors where innovation expenditure (largely due to wages for high skill researchers) is higher, while profits are driven both by the importance of new products and market power, and by restructuring through the diffusion of new processes and wage depressing job reductions. The lesson of such evidence is that technological change has the general effect of favouring profits over wages. Profits increase through separate mechanisms in industries relying on technological or cost competitiveness; conversely, wages grow only when innovation is associated to higher skills of labour; the result is greater inequality rooted in the functional distribution of incomes (Pianta and Tancioni, 2008).
Efforts to explain *wage inequalities* have usually considered factors such as education, skills and use of ICTs. A study at the industry level – covering ten manufacturing and service sectors in seven European countries – (Croci Angelini, Farina and Pianta, 2009) has found that higher wage polarisation is found within industries with strong product innovation, a fast employment dynamics and high shares of workers with university education; sectors with greater opportunities for expanding markets and jobs are likely to show increasing wage inequalities, as managers and high skill workers can obtain part of the rents from innovation. Conversely, wage compression is typical of industries characterised by the diffusion of new process technologies, high shares of workers with secondary education who can increase their competences and productivity by working on new machinery, obtaining higher relative wages (usually in a context of relatively high unionisation and labour market regulation), leading to reduced wage disparities.
While technological change is an important mechanism shaping inequalities, these approaches show that different technological strategies play significant and different roles in affecting the distribution between profits and wages, and inequalities among employees in terms of jobs, skills and wages.

The role of human capital and inequality not explained by education

Mainstream approaches argue that human capital is a major determinant of workers' productivity and earnings, in a view that is coherent with both market efficiency and equality of opportunities. An increase in wage inequalities – so goes the argument – simply reflects the higher productivity and compensation of workers with the highest human capital or education.
Recent research on European countries has found, instead, that in the mechanisms behind wage inequality education plays a modest role. When we investigate inequality in labour incomes of workers with different educational attainments (considering three educational levels: lower

secondary, upper secondary and tertiary) using the Theil index, the inequality among workers with the same education is much more important than the disparity found between different educational groups, explaining almost everywhere 80% or more of overall inequality (Franzini, 2010).
The explanation of such diversity in labour incomes given the same educational attainment can be found in three types of factors: the "structural" specificities of workers' jobs; the types of labour contracts and labour markets conditions; the "personal" (and family-related) characteristics of individual workers. The former reflect the strong differences across industries and firms in terms of knowledge, R&D, nature of innovation and market power that result in workers' productivity and end up in earning disparities. The second factor – with an increasingly important role – is related to workers' labour contracts; in Europe employees with tertiary education but with a temporary or part time contract have a considerable probability of ending in the lowest part of the distribution of income. The third factor points out the role of competences and opportunities acquired not through an education accessible to all, but rather from the family background of individuals; a number of studies have shown that the education and profession of parents are key determinants of the educational attainments and earnings of sons and daughters; in most cases, the influence of the family of origin is stronger than educational levels is predicting individuals' incomes.

The relationship between current inequality and its intergenerational transmission

Parental income and wealth are important factors in determining individuals' life chances, educational attainments and earned wages. Several studies – ranging from economics to psychology - offer good but partial explanations of this influence; in particular, economic models stress the importance of human capital which is considered both a crucial determinant of individual earnings, and a variable on which family conditions exert a major influence.
The approach of the economic mainstream – rooted in the "the family investment theory" of Becker and Tomes (1979) – states that a family's income and wealth are the key means for investing in human capital in presence of imperfect capital markets. It is assumed that individual earnings depend on the human capital acquired through education (given a rate of return on accumulated human capital), and that the latter depends on family's income (Grawe, Mulligan 2002).
Available empirical evidence lends support to the second assumption, even if there is a strong variability across countries. The first assumption is more controversial, despite the insistence of recent models – as we have seen above - on explaining increasing wage inequalities with a higher *skill premium* due to an increase in the rate of return to human capital.
In fact, in 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. The countries with higher current inequality seem to be the same where the intergenerational transmission of inequality is higher (D'Addio 2007; Causa e Johansson 2009). The few available explanations of this correlation are, once again, based upon human capital. An increase in the rate of return on human capital is expected to lead to higher inequality between workers with different endowments of human capital and to a stronger influence of family income on individual earnings, given that the "transmitted" asset – human capital – now has a higher economic value. In other words a single factor – the rate of return to human capital – is assumed to explain both higher inequality and higher intergenerational transmission (Hout 2004; Hassler, Mora e Zeira 2007).
One weak point of this explanation has already been mentioned: the large residual of inequality in labour income left unexplained by human capital. Identifying the other factors contributing to such inequality is, therefore, extremely important also for a more complete understanding of the mechanisms of intergenerational transmission and their relationship with current inequality. In particular, a crucial issue to be addressed is whether such factors depend on family background.

Recent empirical research suggests not only that labour incomes not explained by education and human capital is substantial, but also that this residual is positively correlated to variables representing the economic conditions of the family background (Franzini, Raitano 2009; Raitano, Vona 2010). The quality of education, the transmission of "soft skills" or network effects may account for such patterns.

Countering inequalities and the logic of redistribution

The lessons of previous analyses can shed new light on the deeper roots of inequality and on the ways to counter it. Besides market mechanisms, power relations and political economy mechanisms appear to play a role in enforcing income disparities and in reproducing inequality from one generation to the next. These issues raise questions on the meaning and feasibility of a society based on equality of opportunity, which is considered by many thinkers as the prototype of a fair society. In particular, current inequality may appear as a fetter on equality of opportunity and the latter cannot be achieved if the former is not aptly reduced.

Why inequality matters

The focus of this paper is a comprehensive explanation of the new nature of economic inequality in today's capitalism. We investigate key mechanisms and their interrelations, while leaving the consequences of inequality – economic, social and political – on the side of our analysis. But behind the question "*why does inequality increases?"* there is the deeper question *"why does inequality matter?"*, and we need to briefly address it because this issue too has become more difficult and complex in recent decades.
Liberal perspective have long argued that "equality of opportunities" is what matters and that disparities following from such a condition are socially acceptable and economically efficient. In other words, *"this inequality does not matter",* from an ethical, political or economic viewpoint.
We have shown that advanced economies in the last decades have remained far from equal opportunities and that the liberal justification is supported by little evidence on the economic benefits in terms of faster growth that can be associated to high inequality.
The point we want to raise here, however, goes beyond such traditional argument and focuses on the novelty of today's inequality. In fact, the new nature of today's inequality is changing the frame of the debate in at least three aspects.

First, we have shown that the mechanisms producing inequality in advanced countries have become more complex - investing the type of education, position in employment, family background, etc. – and this is likely to produce economic and social outcomes characterised by a much greater fragmentation along class, status, gender, education, regional and local identities. Individuals' and families' economic conditions are likely to be determined by a greater variety of factors on which they have less and less control. It not just the high *level* of inequality that may threaten social cohesion. This new nature of inequality matters because the diversity of processes increase the effects on disparities of outcomes and social fragmentation, with higher uncertainty and sense of powerlessness of an ever larger share of people, posing a more serious danger to social cohesion and stability of countries. In turn, the complexity of these mechanisms make policy responses to high inequality more difficult and less effective.

Second, today's inequality is largely shaped by the extreme rise of top incomes - earning profits, financial rents and "superstar" compensations – with an increasingly polarised pattern of distribution of incomes and wealth. This is associated to a collapse in the opportunities for education-driven social mobility and to a rise of the persistence of inequalities across generations. Economic privilege is becoming more extreme and is increasingly inherited – again a return to a feature of inequality that was typical of a century ago. An inequality of such nature has important consequences on the economy and society. In economic terms, the "neo-classical" argument that inequality may contribute to faster economic growth by rewarding individuals with higher merit and capacities loses whatever is left of its credibility, as the incomes and wealth of the richest people are less the result of successful business growth (that may benefit the whole economy), and more the outcome of financial speculation and family privilege (a net burden on the economy). Conversely, the entrepreneurial efforts of middle and low-income individuals are likely to be reduced by the lower prospects of social mobility. In social terms, these developments are hollowing the meaning of "equality of opportunities" and the mechanisms of social mobility and change; society is shaped by more rigid social hierarchies, with features typical of a "feudal" society (including the growing number of people employed in the personal service of the very rich). This new nature of inequality matters because it cannot be justified even by the traditional liberal argument, and may have highly negative effects on the economic and social prospects of countries.

Third, the economic and social conditions that define specific patterns of inequality are shaped by a complex frame defined by political institutions – supranational and national – and by the political processes leading to policy making and redistribution. While we usually think of such "frames" as "neutral" and independent from a given patter of inequality, they in fact can be heavily affected by highly unequal societies, further exacerbating disparities.

Several contributions have explored this issue. The "radical democratic" approach proposed by Nancy Fraser (2005) defines justice as "parity of participation" and identifies unjust outcomes in three cases: when economic inequality leads to distributive injustice; when social hierarchies and cultural values lead to status inequalities and lack of "recognition"; when political structures – global and national – lead to a lack of equal representation. The latter are particularly important as they "frame" the way distribution and recognition issues can be addressed by the political process.

Addressing global inequalities and world poverty, Pogge (2002) suggests that today's world is characterised by "radical inequality", defined as follows: the conditions of the worse-off are very bad both in absolute and relative terms; they have little or no possibility to overcome a hardship pervading all their lives; the inequality is avoidable, as redistribution could improve the conditions of the worse-off without worsening too much those of better-off. A key factor in shaping such radical inequality at the global level are global institutional rules, that far from being "neutral", are the result of the balance of interests and political power of the different actors involved, with a dominant role of the interests of rich countries and of the élites of poor countries. Once the rules are set, given the unequal economic and political resources, it may become very difficult to change them through the political process. In this way, according to Pogge, inequality matters because it affects the public debate and policy making, preventing a return to low inequality arrangements and becoming therefore irreversible.

The relevance of institutional frameworks and the influence of high inequality on political and economic outcomes has also been emphasised by Wade (2004) for inequalities at the global level, and by Pontusson (2005) - following the "varieties of capitalisms" approach - in the comparison between the US and European models. The case of the US - with its high inequality and overwhelming political influence of the rich - has been explored by Phillips (2003), Bartels (2008) and Hacker and Pierson (2010), who have pointed out the dangerous effects on the functioning of democratic processes, on political equality and policy outcomes that systematically favour high income groups, further deepening inequality.

These different contributions reach the common conclusion that inequality matters because it affects the institutional setting and the political process – at the global and national levels – leading to a failure of democracy, to disparities in political rights and to "irreversible inequality".

These three dimensions of today's inequalities provide further evidence on the unacceptable nature of such disparities. They outline new ethical, political and economic answers to the question *"why* *does inequality matter?"* and support the need to address them with appropriate and comprehensive policy actions.

Explaining inequalities

The complexity and multidimensionality of today's inequality clearly emerge from the analysis of the previous sections. To the fundamental divide between capital and labour in the distribution of income between social classes and groups, new mechanisms have been added, that have fuelled income inequalities among individuals, rooted in the rise of top incomes, technological change, international production, labour markets, influence of families of origin and lack of intergenerational mobility.

We can now propose an overall interpretation of the trajectory of inequality. It starts with the *functional income distribution* that leads to inequalities in factor incomes, with an increasing divide between the growing share of profits and financial rents – free to move across national borders, escape taxation and search for speculative gains – and the dwindling share of wages, nation-bound and unable to escape taxes. The specificity of *top incomes* – that combine rents, profits and "superstar" labour compensation complicates this picture with the effects of pro-rich policy changes.

Inequalities have also strongly increased *within wages*, resulting from several factors. Education has an obvious influence, but however plays a much smaller role than mainstream views would expect. Skill differences are increasingly important, and need to be examined in the context of specific professional groups, rather than with wide generalisations. Industry specificities, technology and international production do play a role, but in complex ways, depending on the nature of innovative strategies, local competences, market power and demand dynamics. Labour market arrangements – unionisation, presence of minimum wages or national contracts, diffusion of temporary or part-time labour contracts, etc. – are increasingly important factors in explaining the low pay of many young and low-skilled workers. Outside labour markets and the opportunities for social mobility promised by education, the family of origin remains a major determinant of individuals' education and incomes, with an increasingly strong persistence of inequality across generations.

What role has been played in this context by policies? The redistributive effects of taxation, social incomes – pensions and transfers - and provision of public services provided outside the market shape inequalities among families in terms of net disposable incomes and standard of living. However, the reduced spending capacity of national governments, the weakening of progressive taxation – and the ability of top incomes to escape taxation –, the spreading privatisation of public services have all weakened the redistributive effects of public policies.

The combination of such "forces of inequality" has returned advanced countries to the economic disparities of a century ago. The interpretation we provide offers a new explanation of the nature of today's economic inequalities, of its consequences, and possible remedies.

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