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INCOME INEQUALITY. WHAT CAUSES IT AND HOW TO CURB IT

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INCOME INEQUALITY. WHAT CAUSES IT AND HOW TO CURB IT

1. Introduction. Basic definitions

Clearly, the first question in the title is functional to the second. Knowledge of the causes of inequality helps in choosing the ways to counteract it. But also the question itself whether it be wise or not to take measures against inequality is to a certain extent influenced by what is thought to be at the roots of inequality. The aim of this paper is actually to suggest measures to curb or to counteract it. But this implies in the first place the idea that inequality is for some reasons "bad" (may be for reasons related to fairness or to economic performance) and has to be avoided; an idea that has to be discussed. In the second place it implies the belief that inequality is not the natural consequence of a good working of a competitive economic system. Even if that were the case, though, on the basis of the first consideration it would be possible to think that inequality can be either constrained while happening or cut when happened, or both.

In order to proceed it is first necessary to define clearly what is meant by "income inequality". This concept has to do with the distribution of income, and therefore has to be considered under two aspects: functional distribution and personal distribution. The first is related to the shares of GDP which go to different factors of production and can be represented respectively by the ratio of labour income (wages, salaries and other work-related compensations) to total income and by the ratio of capital income (interests, dividends and other returns on capital) to total income. The second is the dispersion of annual income across households and it is mostly indicated by the Gini coefficient.

The capital share, as the residual of the labour share, is therefore:

1 - (employee compensation/ GDP).

This definition still maintains some ambiguities. For instance, it does not consider the income of self-employed, underestimating in this way the labour share. To adjust for this (Gollin (2002) suggests to include "the operating surplus of private unincorporated enterprises (OSPUE)" in the computation of labour share. Some doubts also exist about where to locate the fiscal wedge. Surely it is not profit, nor rent: it should be labour income although workers do not perceive it as such. On the contrary, workers perceive as income the interest paid on public debt. Rent from owner-occupied houses, social transfers and government benefits, pension funds, the aggregation of profits and rents (Atkinson), and also the aggregation of physical capital and natural capital (Gollin 2008) all pose similar problems.

In a simplified model the share of labour is:

total labour cost / GDP,

which may also be expressed as:

$Nd \cdot w / Y \cdot p$ or, if Gollin's suggestion is followed,

$Nd \cdot w + ospue / Y \cdot p$

Where Nd is the number of employees, w the nominal wage, ospue is the proxy of the number of selfemployed multiplied by their unit income, Y is the physical output, p the price level.

Alternatively, whatever the measures used for the aggregates, supposing that the average compensation for selfemployed and similar is the same as for employees, the share of labour can be viewed as:

$$\frac{W \cdot N/L}{Y}$$

Where W is total wage compensation, N is total employment, L is total employees and Y is total value added.

Therefore

$$\frac{W}{Y} \cdot \frac{N}{L}$$

And so $\frac{W/L}{Y/N}$ is the share of labour

The relative shares of capital and labour, on the other hand, can generally be described as: $\Pi / W = K / L \cdot \pi / w$

Income inequality is the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. Obviously there are connections between factor shares and income inequality. A first connection is a structural one: since labour income is generally more evenly distributed than capital income, a change in factor shares entails *per se* a change in personal income distribution, in the sense that a decline in labour share is associated automatically to a more uneven distribution of personal income. This effect is, obviously, stronger the higher the difference between the dispersion of income distribution, say the gini coefficients, within each of the two categories. Beside this, the connection could be more complicated in case of different (and possibly opposite) movements in the rate of change of N and w (wage rate). In other words, considering the above version, the movement of labour share depends on the relative behaviour of the two ratios W/L and Y/N and on all the factors that impact on them.

2. *First question. Why to worry about income distribution*

The first question to be answered in order to proceed in developing the theme of the paper is whether, and why, to care about income distribution. There are two main reasons why it doesn't seem to be the case to worry about. The first one is that inequality is in any case beneficial to growth. We can still read (Chegg Study, on internet) sentences like this: "As income shares become more equal, the incentive for individuals to accumulate skills, work hard and take risks may become smaller, thus shrinking the size of the economy". So, any attempt to promote equity would interfere with market forces and would be detrimental to growth(Welch 1999) and therefore, at the end, would cause everybody to be worse off. The alleged trade-off between equity and growth should in any case be resolved in favour of growth.
The second reason is that there would be an intrinsic law in the working of the economy which would keep constant in the long run the factor shares of income. This vision goes back to the well known "Bowley's law", derived from empirical observation, but it is also part of theoretical models of growth, from Solow to Kaldor, who also included the constancy of factor shares among his "stylized facts".
Through his technical progress function, Kaldor sees the economy as converging towards a balanced path of growth in which $\Delta y/y = \Delta k/k$ (being $k= K/L$ and $y= Y/L$) , therefore a growing capital-labour ratio at the same rate as the income-labour ratio would imply a constant $\Delta Y/\Delta K$: that is neutral technical progress with a constant profit rate and constant factor shares of income. The similar growth of income and factors productivity in presence of growing population and full employment may be explained by compensating trends in productivity per hours worked and number of hours worked per man. Kaldor (contrary to recent data) found empirical support for this model.
The same vision of stable factor shares belongs to the neoclassical world, where distribution is obviously and always "fair" since it is "technically" determined by the marginal productivity of factors, and any attempt to violate this natural law should be rejected. In the Cobb Douglas production function the factor shares are simply the exponents of K and L. The stability of factor shares is explained by unit elasticity of substitution to factor prices, while elasticities less than one and more than one would imply, in case of decline of the capital/labour ratio respectively an increase or a decrease in the wage share. The opposite would hold in case of increase of the capital /labour ratio.
Kalecki seems to accept the stability of factor shares in his basic model but actually he introduces two factors that can alter the shares: the degree of monopoly, as it influences the mark-up, and the relative power of social parts (Sylos Labini 1984). He also explicitly states that although "the share of wages does not seem to show marked cyclical fluctuations", "no a priori statement is possible as to the long run trend of the relative shares of wages in income" (Kalecki 1965, pag.31).

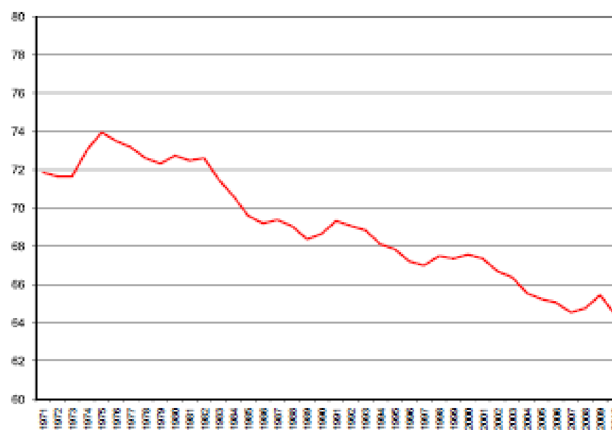
As for the classical economists, no specific indications about the evolution of labour shares are made. Ricardo, who thought of distribution as the principal problem of the economy, complicated the frame by introducing the role of land rent, which progressively would squeeze profits, while wages were considered set at the subsistence level. Marx was more interested in the movement of the rate of profit, rather than the share of profits, and expected it to fall in the long run due the growth of the "organic composition of capital", although he was aware of counteracting forces which could delay this result. The role of relative powers in the class struggle was emphasized in determining the rate of surplus value on which the rate of profit mainly would depend.

A further argument is sometimes raised against "worrying too much" about inequality: the fact that the absolute level of income of the poor is more important than the disparity in income distribution. It is argued on one hand that if the income and the standard of life of the lower layer of population is high enough, it would not make much sense to worry about inequality, and on the other hand that if the absolute level of the poor is miserable, that, and not inequality, is the problem. This objection does not hold, though, unless we assume the existence of a trade-off between egalitarian distribution and income level of the poorest (or even middle) class of population.

3. reasons to care about distribution

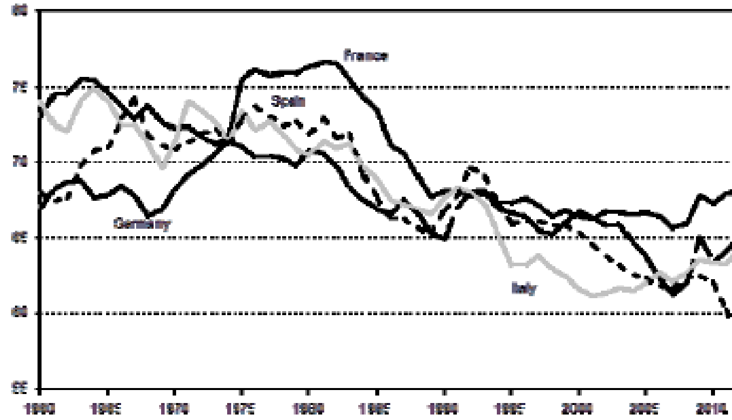
The statement that labour shares are constant over time is theoretically weak and contrary to empirical evidence. Two tables are enough to show an overall declining share of labour during the last 20-20 years.

Labour share of income in G7 economies (weighted), 1970 - 2010



Source: Kramer 2011, from Ameco

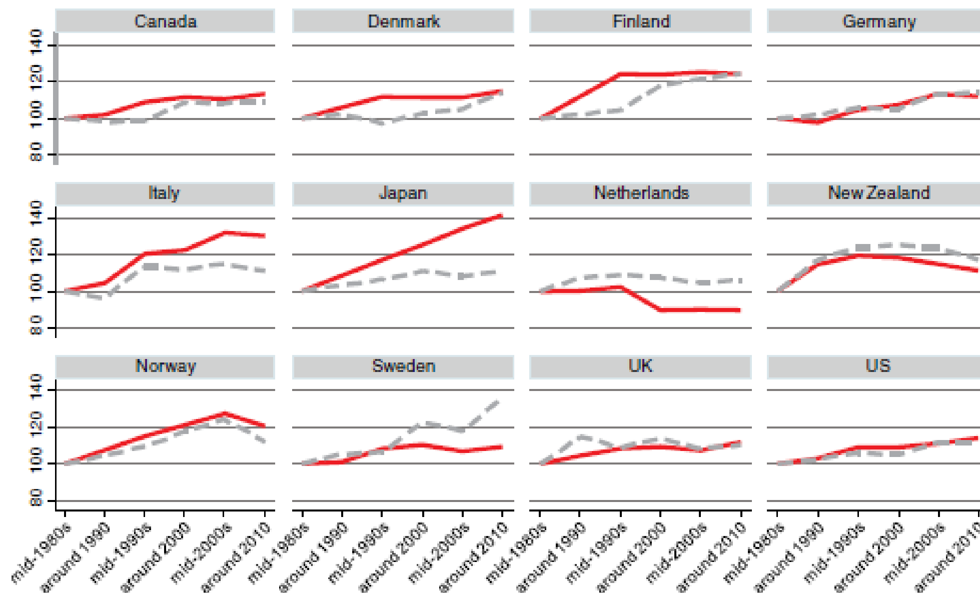
Adjusted wage shares, continental European countries 1960 -2012



Source: Ameco database 2013

On the side of personal distribution, there is wide empirical evidence of the general increase in the Gini coefficient in the last decades:

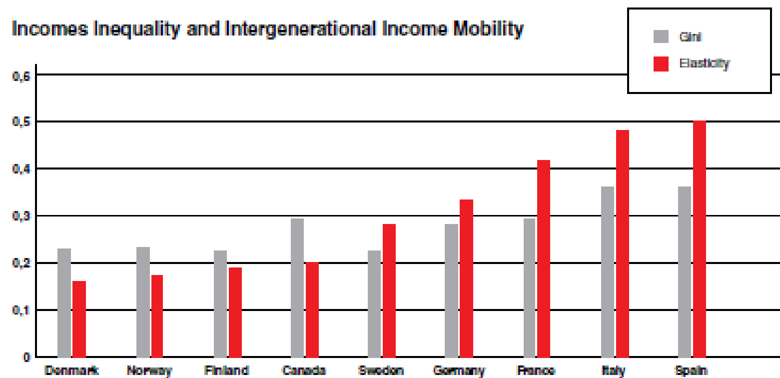
Gini coefficients, 1980 – 2010 (1980 = 100)



Red: market income, disposable income = market income minus taxes and transfers
Source: Oecd data elaboratd by Smeeding, Morelli, Thompson (2013)

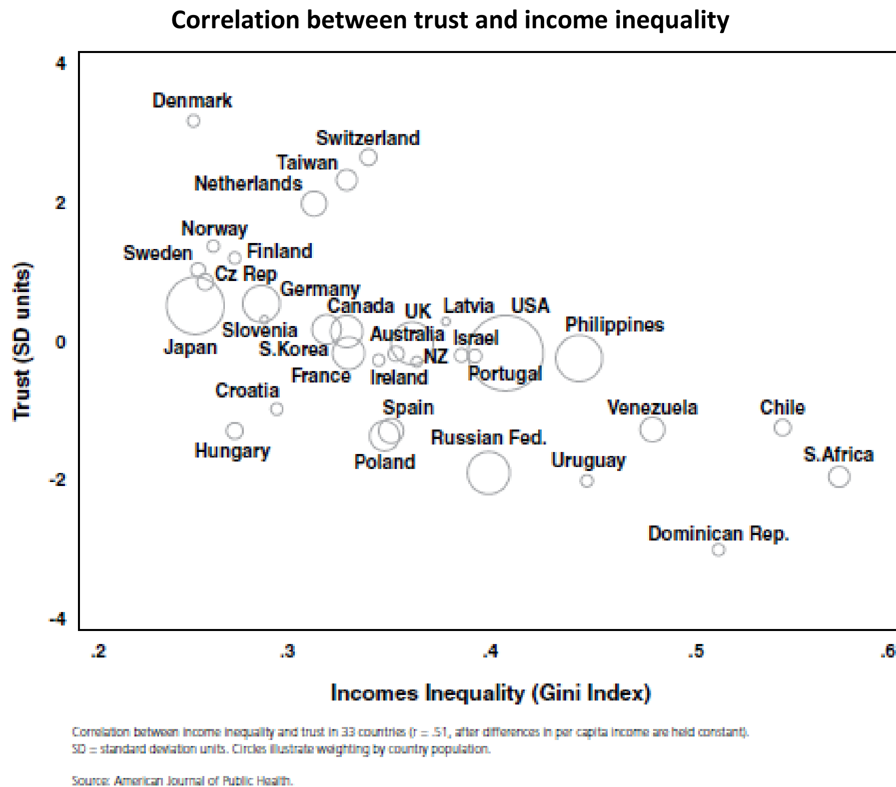
Then, there is the appalling difference among top level salaries and ordinary wages. It is not an irrelevant fact that while in the seventies and eighties the salary of the 350 largest companies in the US were 20-30 times the wage of an ordinary worker, around 2010 the difference jumped to 200 – 400 times, and in the UK above 300 times (Michel, 2012).

The reasons to care about the worsening of wage share and income inequality are grounded on one side on fairness issues, and on the other side on the impact on economic performance itself.
Fairness is obviously connected to a system of value judgements, but in general terms fairness in income distribution, conceived as a low level of inequality, is more and more being considered as a positive requirement for modern and democratic societies. A part from "metaphysical" principles, this is also due to some consequences that income inequality is bound to produce in society.
One of these is the reduction of social mobility. There is wide empirical evidence that high levels of income inequality as measured by Gini coefficients are associated with high levels of intergenerational elasticity (which is the coefficient obtained by regressing children's income in adulthood on their parental income; a coefficient of 1 would mean that all the income difference between parents would be passed on to children).



Source: G. Espin Andersen, 2009

Another unpleasant consequence is the lowering of social cohesion, and particularly of trust relationships, which are of vital importance for the good and smooth working of markets and of social interactions as a whole. The sense of unfairness which is connected with large inequality creates distrust and lack of cooperative attitude among people. Furthermore, since unleashed inequality is perceived as a violation of the principles of appropriate rewards and reconnaissance of merits and skills, it appears to be a result of "predatory behaviour" (Fitoussi, 2011) and it may also discourage young people from engaging in skill acquisition and in accumulation of human capital.



Correlation between income inequality and trust in 33 countries (r = .51, after differences in per capita income are held constant). SD = standard deviation units. Circles illustrate weighting by country population.

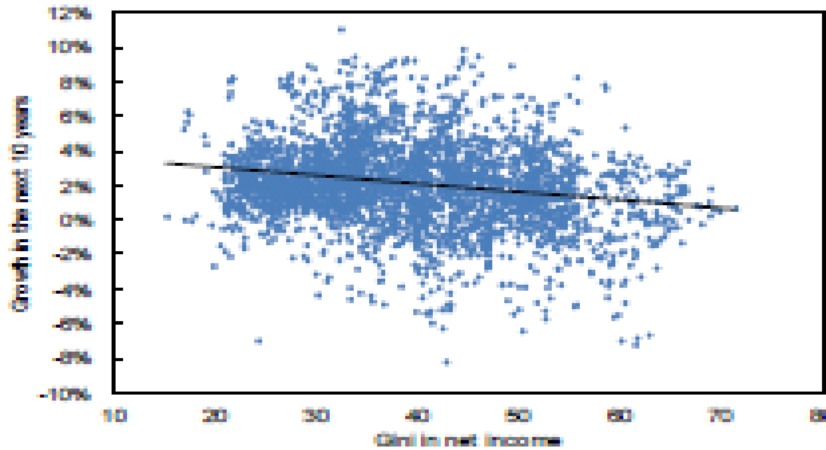
Source: American Journal of Public Health.

Finally, income inequality has been proved to be positively correlated with all sort of bad social indicators, such as crime, violence, drug abuse and so on (Wilkinson, 2009).

Having considered all this, it may still be objected that the fairness argument is not decisive in order to make a choice in favour of taking action to counteract inequality. It might well be that equality is detrimental to growth, as one could deduct if less inequality were empirically associated with less growth. In that case it could be preferable to sacrifice some equality to preserve more growth. A trade off would appear and the choice would become dependent on the preference function of society.
As a matter of fact this is not the case. It is not possible here to comment on all the existing literature on this topic, but it is possible to say that in general the empirical evidence shows that "there is a strong negative relation between the level of net inequality and growth of income per capita in the sequent period; the statistical evidence generally supports the view that inequality impedes growth, at least over the medium term, and have found that inequality is associated with slower and less durable growth. The few exceptions (Forbes, 2000; and Banerjee and Duflo, 2003) tend to pick up ambiguous short-run correlations" (Ostry, 2014). This is shown in the figure below. As far as developing countries are concerned it seems that "longer growth spells are robustly associate with more equality in the income distribution"

(Berg 2011). As for the relation between redistribution of income and growth, some qualifications have to be introduced, which we shall discuss later.

Level of per capita income (subsequent 10 years) and levels of inequality



Graph from Ostry (2014)

The factors to which such relation can be attributed are now to be pointed out.
The first factor is the shrinking of effective demand, with direct consequences on this fundamental driver of growth, or, in order to avoid these, the increase of leverage in support of aggregate demand. This is bound to cause (and actually it has triggered) financial crisis (Rajan, Pivetti). Due to different (and decreasing) marginal propensity to consume, a growing concentration of income implies a declining consumer demand. This decline could lead to an underconsumption crisis (of Marxian flavour): in order to escape from this, aggregate demand has to be sustained through private indebtness.

The second factor is the accumulation of enormous wealth in the hands of a restricted number of people. This accumulation takes place through a combined dynamics of uneven distribution of income and expansion of the financial sector, implying in this way a significant change in factor share due to growth of financial rents. As a consequence, and with the help of lacking financial markets regulation, financial excess becomes possible, and with it the weakening of growth and the strengthening of financial instability (Stiglitz 2012, Galbraith 2012).Besides, the rich may come to get enough power as to gain full control of the policy makers. In this way they can prevent the adoption of policies capable of reducing inequality, and possibly favour policies capable of increasing it.

A third factor can be detected in the fact that income inequality undermines progress in health and education. Bad health conditions, low living standards and poor education among the population lead to a slow down of growth (Galor 2004).

Although the relation between human capital and growth or per capita income is far from univocal, mostly due to ambiguities in human capital measurement, it is generally recognised, though, that higher levels (and better quality) of education improve the pro-growth attitudes of economic agents and increase the absorption capacity of innovations.

Finally, a low level of inequality is thought to enhance social cohesion, and this in turn is able to provide an institutional set up capable of solving conflicts and better reacting to external shocks (Rodrik 1999). The lack of social consensus, which is favoured by inequality, is bound to seriously dampen social and political stability, the efficient working of the market and the process of growth.

4. Causes of income inequality

Since, beside being considered unfair, inequality is also detrimental to growth, there are enough reasons to believe that action should be taken to reduce it. There are essentially two ways to reduce inequality: one is to adopt redistribution measures once it has happened, the other is to adopt measures and strategies to prevent it from happening. In order to be able to act on this second line it is necessary to consider the causes which are at the root of the process of unequal distribution.

The deepest root of the general growth of inequality that has taken place in the last decades is surely to be found in the change of political climate towards neo liberalism (Dumenil 2001). Political and institutional evolution has been deeply influenced by this ideological orientation so that the entire working of the economic system has taken a shape coherent with the growth of inequality.

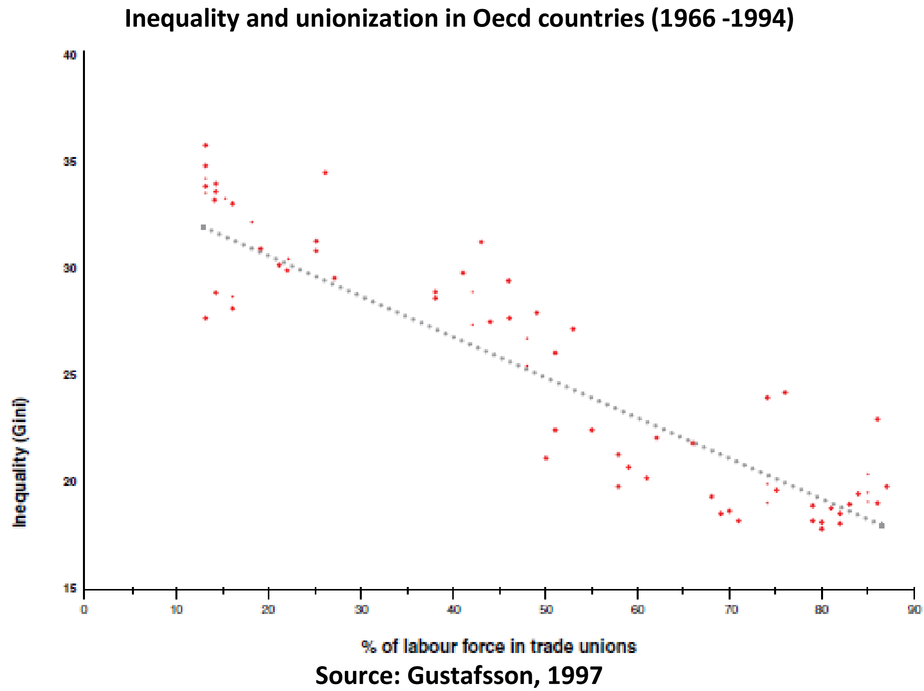
A reflection of this attitude is given by labour market policy. Here the insistence on "flexibilisation" together with "wage devaluation" in order to win competition has led to a strong segmentation of labour markets with high wages differences and a fall in the general level of wages. The consequent fall in aggregate demand was supposed to be compensated by an increase in exports due to higher competitiveness; something that, of course, cannot stand if all countries are taken together as a whole. Nevertheless, these policies have led to increasing income inequality.

A second expression of this political orientation has been the implementation of recessive macroeconomic policy. The objective of fiscal consolidation, the pro-cyclical automatic mechanism of balanced public budget adopted by the European Union, the set of recessive economic policies imposed by international financial institutions (particularly the IMF) to countries with difficulties in change for financial assistance has led to increase in unemployment an therefore to growth of inequality.

As a consequence of growing unemployment and of deliberate steps to reduce trade unions power and role, the neo-liberalism attitude has led to a decline of

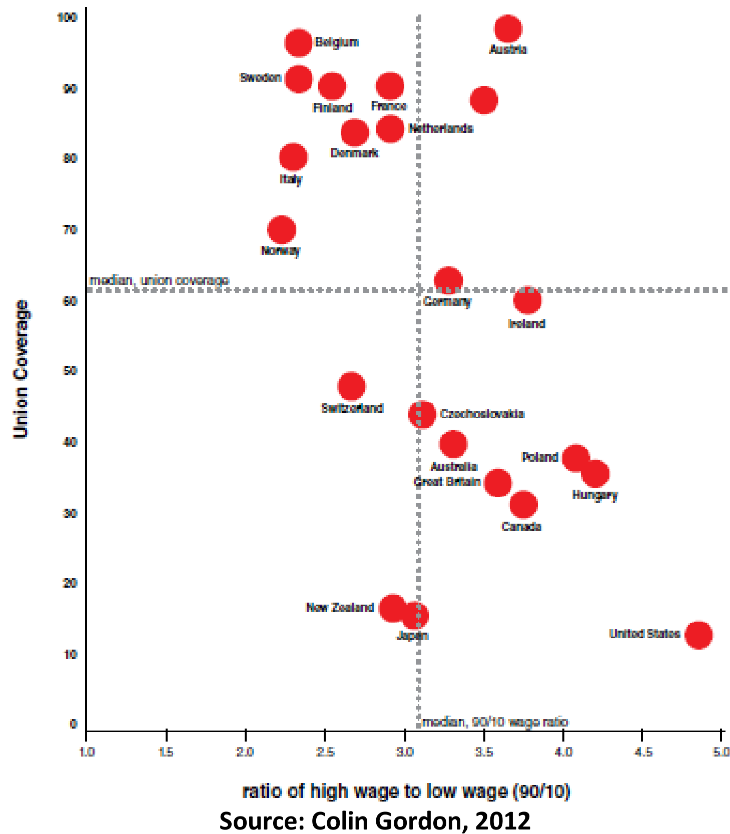
unionization. But, there exists a negative relation between inequality and degree of unionization, as can be seen in the following two graphs.

Inequality and unionization in Oecd countries (1966 -1994)



Source: Gustafsson, 1997

Union coverage and inequality in OECD (2007 -2010 for most countries)



Source: Colin Gordon, 2012

The scope of collective bargaining has diminished everywhere. An increasing trend towards decentralization of bargaining to firm level on one hand, and to escape collective bargaining through individual agreements on the other hand, has weakened the opposition to wage fall and has enhanced the inequality of wages.

A fourth cause of the rise of inequality is the progressive rise of financialization since the ‘80s. One relevant aspect of this rise is the size of the financial capital involved and the other is the absence of appropriate regulation of financial markets. The unleashed diffusion of derivatives, the large proportion of OTC transactions, the mixture of commercial and investment banks have enhanced the possibility of gains for those at the top to such an extent to allow wide and excessive speculative behaviour. In addition, the financial sector has been so empowered to gain control over the policymakers and the institutions that policy action to change the status quo is rendered highly unlikely, if not impossible. (Epstein, 2005; Glyn 2006, Palley, 2008). Another unpleasant consequence with regard to the real sector and income inequality is given by the possibility that investment in financial assets (which offer higher returns) become substitute for investment in physical capital, dampening the growth of productive capacity and depressing the level of economic activity (Stockhammer 2004). It is also possible that the increasing transfer of firms ownership to financial institutions exerts on them a pressure for higher returns, which means a pressure for increasing the profits at the expenses of wages and consequently worsening the inequality of income distribution.

A further cause of inequality is abundantly mentioned in the literature: globalisation. Globalization actually boils down to the fact that goods can be produced everywhere and sold everywhere, with no restrictions to their mobility and with diminishing transport costs. This situation is able to produce a series of consequences that affect income distribution. Contrary to the ambiguous advantages alleged by traditional mainstream trade theory fundamentally based on the Samuel theorem, the empirical evidence shows that globalisation has definitely contributed to the decline of the wage share, as also the IMF has come to admit: “globalization is one of several factors that have acted to reduce the share of income accruing to labor in advanced economies” (IMF 2007a, 161). There is no evidence at all that the opposite might have happened in developing economies. There are presumably three main ways through which a pressure to reduce wages is exerted by globalization. The first is the attempt of firms to become more competitive through wage cost reduction, the second is the offshoring of production to where total unit costs (not only labour) are lower, which undermines the levels of employment in advanced countries and so acts against wage rise. The third is the simple threatening of relocating production, which can be used as a sort of “discipline device” to cut down the bargaining power of trade unions and workers in general (Rodrik 1997). Such a threat is also used to induce workers to accept not

only lower wages but also worse working conditions, and governments to change labour market regulation towards lower labour standards and lower employment protection.

A sixth causal factor of inequality has to be considered, and that is technological change. Although deducting the evolution of "capital intensity" of production from a neoclassical production function is somehow less than correct, empirical evidence shows an association between the evolution of productive technology and the evolution of income inequality. The European Commission, in a report of the 2007, states that "the estimation results clearly indicate that technological progress made the largest contribution to the fall in the aggregate labour income share". The possible explanations for its influence on unequal income distribution go from the one saying that skill biased technical progress increases the marginal productivity of high skilled workers relative to low skilled, so determining a widening of the different compensations to another one saying that, being technologically advanced capital goods substitutes for unskilled labour, the demand for this kind of labour tends to fall compared with demand for skilled workers and consequently the wage gap tends to increase.

A last causal factor to be considered is the growth of bargaining power of firms. This power enables them on one side to compress the level of nominal wages and on the other side to increase the mark-up and raise the level of prices. The intensity of this process is determined by the degree of monopoly, as Kalecki pointed out. The consequent increase in profits is then enjoyed by the executives of the monopolistic firms, through decisions about their salaries and benefits taken at the level of the board of administrators. No restrictions whatsoever are met in taking these decisions, so the enormous and growing gap between top level salaries and ordinary level wages cannot be ascribed to increasing productivity or other imaginary forces of a perfect competitive market, but only to what has been called "predatory behavior" of the executives, made possible precisely by the enormous power obtained by the high degree of monopoly present in the market.

5. Policy suggestions to counteract inequality

Once it is established that (excessive) income inequality is detrimental not only to fairness but also to growth, the problem arises of how to curb it, or how to avert it. Care should be taken of the risk that measures taken to counteract inequality might be detrimental to fairness and growth more than inequality itself (Okun 1975, Barro 1990). If it were so, the damage of inequality would be doubled: not only it would be pernicious in the first place, but also because it would call forth measures to counteract, which would possibly add up in damaging the proper working of the economic system.

The ways to counteract income inequality are substantially of two kinds. The first is to let the market forces act freely and produce whatever inequality they can, and only afterwards intervene to correct it with redistributions measures; the second is to take measures to prevent excessive inequality from happening in the first place. While the first way is exposed to risk of adopting a medicine that may turn out to be worse than the illness and therefore requires a careful attention to select the right measures, the first can be accused of interfering with the free market mechanism.
On the basis that reducing market inequality (that is inequality before redistribution through taxation or social expenditure) would also reduce the strength of measures needed for redistribution, the first way should be preferred. It also should be preferred because the so called "interference" with the free market mechanism is in fact directed to avoid distortions in its working and most market failures.

A) Measures to prevent income inequality

The measures that have to be suggested in this direction are strictly related to the causes of inequality of income that have been mentioned above.
In this regard, the first market failure to take account of is monopolistic concentration. Fighting monopolistic concentration is not an easy goal, but concrete steps should be taken at national and international level to safeguard free competition and provide in this way less scope for mark-up increases. Being the level of mark-up, as it has been mentioned (Kalecki 1965), a factor that influences the functional income distribution this would also help to lessen the production of income inequality. Since the concentration of market power in the big corporations has been favored worldwide by the process of globalization, the strength of antitrust institutions should be improved at the international level (for instance within the European Union) as well as at the national level. As for natural monopolies, particular attention has to be drawn on the need to reinforce the regulatory system in the field of utilities.
When we come to consider financialization, another factor that has been considered as strongly influencing the unequal income distribution, a whole range of institutional regulatory innovations appear to be necessary. The lack of appropriate global financial governance has left unrestricted freedom not only relative to movements but also relative to the unlimited diversification of financial products. National states do not seem to be able to cope with this enormous geographical mobility of incredible masses of financial capital; international institutions seem to be reluctant to take significant action. The set up in the European Union of the Systemic Risk Board and the three connected agencies does not seem so effective in regulating the financial markets, probably because of their composition and because of the limited powers with which they have been endowed. Stronger action must be taken, such as separating commercial banks from investment banks, restricting the

operation activity in unregulated markets (OTC transactions), redefining the role of the rating agencies.

A third step should be towards a deep restructuring of collective bargaining and labor market regulation. Undoubtedly, the growth of unemployment due to recession weakens the bargaining power of workers as far as wage settlement is concerned. Nonetheless institutional factors play a relevant role: pushing the decentralization of bargaining too far could be of some relief to single enterprises but would also imply less power left to workers organizations and also less attention paid to macroeconomic aspects of wage settlements (such as aggregate demand, growth, inflation, international competition). The same is bound to happen when the labour market is fragmented (often in the name of flexibility) in an excessive variety of labour contracts. A stronger association between productivity dynamics and labour compensation dynamics should be pursued, in order not to let profits to enjoy bigger and bigger parts of growing productivity. In parallel, the growth of productivity should be stimulated, avoiding to provide a negative incentive towards innovation by the use of low paid - low skilled work. To the same end, in order not to permit that slow innovating firms be allowed to compensate such delay with slow wage dynamics, a kind of planned rate of productivity increase could be adopted as a reference (Fadda 2013, Tridico 2014).

Parallel to these labour market measures, a general stronger involvement of trade unions in a kind of interactive, network, governance is advisable. The graphs above show an inverse relationship between union coverage and income inequality. A social partnership capable to stimulate a responsible interaction and a cooperative participation of trade unions (as it is in the German case) would also improve the economic performance as a whole. Of course this cannot be only the result of institutional features designed by the law, or an expression of an attitude not exactly corresponding with the present neo-liberal trend; it also requires a maturity in trade unions which makes them capable of giving positive contributions to the solution of social conflicts, to growth of trust in society and to enlargement of social consensus.

Counteracting the negative effects of globalization with regard to income inequality requires a series of general economic policy measures which run from international trade regulation to bilateral agreements between nation states. Looking more closely at the aspects mentioned above, and particularly at the actual or threatened relocation of production, two lines of action can be suggested. The first is related to production costs. It would be wise, instead of allowing for reduction in wages, to act on one side to lower the quota of labour costs within total costs by increasing labour productivity through innovation, and on the other side to also lower the other production costs, such as energy, tariffs, transports, services to firms, raw materials and so on. The second is to obtain an adequate level of international harmonization and cooperation among national trade unions. This would help to avoid social

dumping and to prevent a downward wage and labour standard competition among workers in different States in order to subtract to each other the location of production. It surely sounds strange that trade unions, which were made precisely in order to avoid such competition between individual workers, let I possible among workers of different nations through the absence of international coordination among them.

Finally, there is the need to refrain the "predatory" behaviour of the richest which has been mentioned above. This behaviour finds expression in two ways: The extraction of rents in different fields (monopolistic quasi-rents, financial rents, urban rents, political and public sector rents, rent seeking behaviour in the Public Administration and so on) and the self-decisions about compensations and fringe benefits taken within the board of executives. There are mainly two ways of counteracting this (apart from a general change of cultural attitudes which determine what degree in the gap between the best paid and the less paid is socially acceptable). The first is to set a ceiling by law to salaries and all the executive benefits. Whether this is possible also for the private sector rather than for the public sector only is an open question, and it is anyway subject to political choice (for instance, it has been recently rejected in Switzerland through a referendum). The second is to include in the board of executives some worker representatives. Although they cannot obviously decide the majority in the board, their presence can help rendering the issue more known and expose in this way to all workers and to the public opinion the questions of fairness that it implies.

B) Redistribution measures

Once all these measures to prevent inequality are taken, even if they have been successfully taken, there will always be a residual inequality, which might be called physiological, not due to distortions of the market or to power relationship, but reflecting different skills, different efforts, different productivity and different responsibilities, according to the value that society attributes to all these elements.

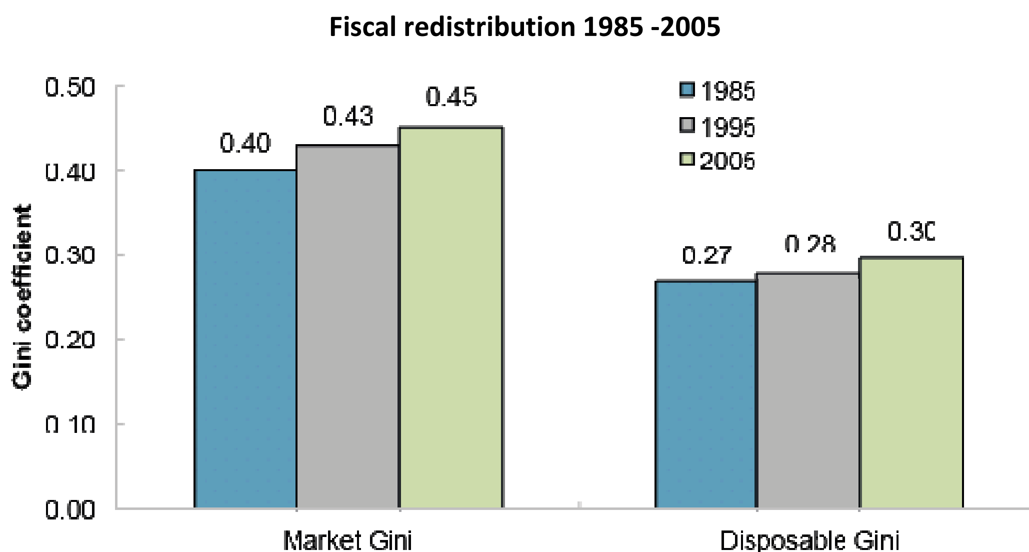
Value judgments are therefore determinant in establishing the acceptable level of inequality. If this residual inequality is considered socially unfair it may also call for adjustment through redistribution by taxation and transfers, and would add up to the demand for redistribution deriving from the existing inequality due to the failure, or the absence, of measures to prevent it. It is obvious that the higher the "market" inequality, the stronger will be the demand for redistribution. In fact, the empirical evidence shows that redistribution measures are generally wider and stronger precisely where market inequality is higher (see appendix).

A first negative consequence of trying to correct market inequality trough subsequent distribution measures is that people who have benefited from inequality may have accumulated so much wealth and so much power as to be able to buy votes or to adopt other corruption practices to resist against such measures

being decided or being actually implemented. This would drive the political and economic system into a dangerous tunnel of inefficiency and decay. This is another reason why measures to prevent the rise of excessive disparities in income and wealth in the first place should be preferred, and why great care should be given to the choice of appropriate redistribution measures.
A second possible negative effect is given by the possible opportunistic behavior of economic agents (individuals and firms) relative to both transfers and in-kind benefits, like, for instance turning to irregular economy to avoid paying tax, or diminishing work effort if taxation is too progressive, or also behaving strategically or fraudulently in order to get higher transfers. In addition there is the risk that badly designed transfers may accrue to people who are already better off. In all these cases redistribution would be lessened and the working of the economy would be badly affected.

A general question has to be raised as to what is meant by redistribution and how it is measured. Generally by redistribution is meant a change in the Gini coefficients, and the size of the change (that is the difference between the "market" Gini coefficient and the "net" Gini coefficient) is taken as its measure. Progressive taxation as well as transfers may have similar effects in this regard, but it should be noticed that the effect of progressive taxation, although it reduces the Gini coefficients does not produce any actual improvement of the income of the poorer; so, in a sense it is doubtful whether a "substantial" (rather than a merely "statistical")redistributive effect can be attributed to taxation in itself. Only if taxation is used to finance transfers (either monetary or in the kind of welfare services) to low income people it will imply a significant "redistribution". Otherwise, if used to finance public expenditure as such, it would be only a fair way of sharing the burden of government expenditure; excessive personal disposable incomes would in fact be cut, but the low income people would not benefit from it. This is, of course, a simple consequence of the fact that the Gini coefficient can be reduced of the same amount either by lowering incomes at the top or by increasing incomes at the bottom. In statistical terms it is the same, but if we have to give to the word "redistribution" its proper meaning, it makes a difference. The terms "redistribution" and reduction of the Gini coefficient cannot be considered, in this respect, as synonymous.
The following graph describes the effect of fiscal redistribution in the oecd countries in Gini terms

Fiscal redistribution 1985 -2005



Source: Caminada (2012)

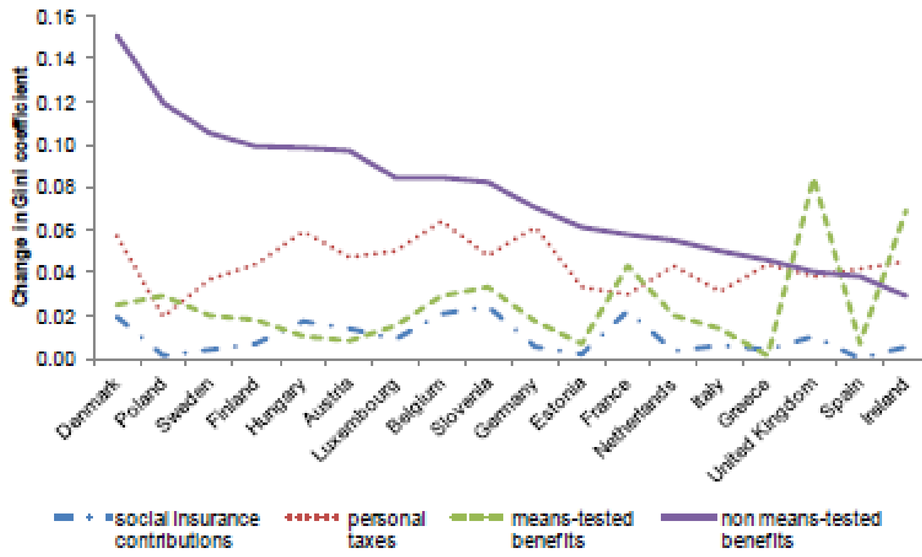
As it can be seen, fiscal redistribution has not been able to offset the increasing trend in inequality, which has been maintained also in terms of net income.

Obviously, different composition of taxation can have different impact on inequality in disposable income. The more progressive is taxation, the higher will be the gini coefficient reduction: therefore the idea of increasing the weight of indirect taxation (which is regressive) relative to direct income taxation is opposite to the target of decreasing inequality. “In an analysis of 12 european union economies, the effective indirect tax rate, calculated as the share of consumption taxes in total household income, is on average three times higher for the bottom income decile than for the top decile. While both value added tax and excise duties are regressive in all economies, excise taxes are especially regressive, their share in total income being four time higher in the bottom income decile than in the top decile” (Bastagli, 2012).

Rising progressivity, fighting tax avoidance, cancelling tax havens are all measures that work in favour of diminishing inequality of disposable income.

Transfers and provision of welfare services play a similar role, but in addition, as we said before, they bring actual benefit to low income people. The relative impact of the two kinds of measures can be seen in the following graph:

Redistributive impact of income taxes and transfers in the EU for early 2000



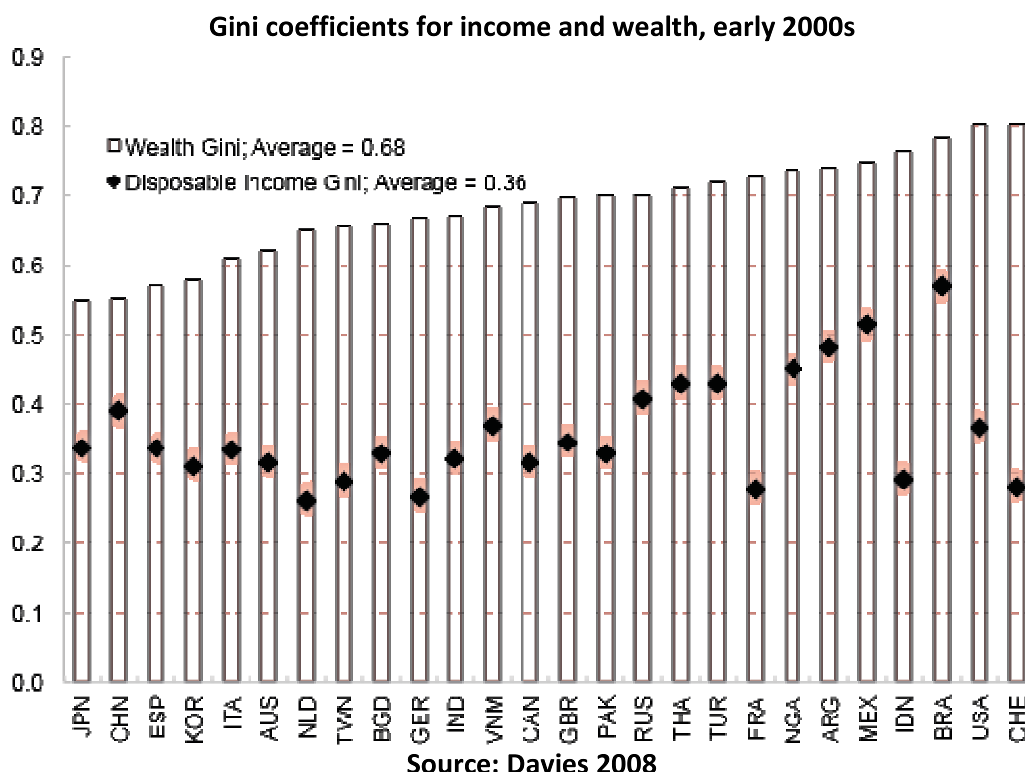
Source: Bastagli 2012

Note: Lines show the increase in the Gini coefficient of disposable income due to the removal of each tax or transfer as existing in 2000-2005 in different countries

A warning has to be made relative to these data. They are simple estimates of the likely effects. They could be called “blackboard effects”, since they describe the “statutory incidence” of policies, rather than their actual incidence, not enough data being available for that. As it has been mentioned above opportunistic behavior of agents and bad policy design could result in a negative impact on the effectiveness of redistribution but also on the level of activity of the entire economy and the path of growth.

On the other hand if transfers and in-kind benefits are devoted to improve the access to and the quality of educational services, or to improve the access to, and the quality of, health services, or to cope with the housing problems they are beneficial to social cohesion and to growth. Therefore, more than a warning relative to the interpretation of these data, these considerations are to be meant as a hint to the great care that has to be paid when designing the structure and the intensity of fiscal policy.

A reinforcement of non income taxation is needed if wealth inequality is considered in addition to income inequality. Taxes on wealth are generally lower than income taxes, and so are taxes on property and on inheritance, and so both gross and net wealth inequality is higher than gross and net income inequality, as it can be seen in the following graph. The disproportion has even increased in times of fiscal consolidation.



In fact, the way in which the target of fiscal consolidation is being pursued in most European countries on one side includes the downsizing of social and welfare services and on the other side goes together with a rise in taxation (especially of the regressive indirect kind) and a pressure towards lowering wages. A heavier fiscal pressure on low range pensions in some countries (particularly in Italy) contributes to growth of inequality.

On the contrary, according to the above considerations, the design of fiscal and transfer policies capable of effectively reducing the disparities in disposable income and at the same time avoiding a negative impact on economic performance should be possible if it were oriented towards the following directions.

In the first place a switch towards more progressive taxation and less regressive indirect taxes. This would not only ensure a greater impact on equalitarian redistribution, but would also be a stimulus to growth, due to the increase in aggregate demand, given the higher marginal propensity to consume of lower income people relative to higher income. In the second place , the basis for the tax revenue should be expanded by means of extension of taxation to wealth and property, by means of effectively counteracting tax evasion and by means of effectively preventing the use of fiscal havens. Again, these measures would reduce disposable income inequality without dampening the growth of the economy.

As for transfers and welfare services, expenditure on public housing, public health services and public education services would be beneficial both for reducing inequality and for fostering the growth of the economy. In order to avoid these

social services and benefits being appropriated mainly by the rich, the provision of such services on the basis of means-tests has been often advocated. The question is still a controversial one, but two things should be noticed. First, the effectiveness of this approach requires absolute reliability of the tests; in many countries, and particularly in Italy the system would turn towards opposite effects due to the ascertained unreliability of the official data about personal incomes. Second, if the tax system was really and strongly progressive a redistributive effect would come out automatically even with universal access to welfare services because, at the end, people would pay differently for the same services according to their incomes, differently taxed according to their levels.

It should be added that right in times of crisis, increasing expenditures in selected public services would help directly redistribution and growth, and through growth of GDP also fiscal consolidation. These sectors are, in particular, those most relevant for getting more and better employment: the improvement of skills through better education and vocational training and the reinforcement of employment services to help the matching between demand and supply in the labour market. “The best performers among the rich countries in terms of economic, employment, social cohesion and equality outcomes have one thing in common: a large welfare state that does several things at the same time, investing in people, stimulating and supporting them to be active, and also adequately protecting them and their children when everything else fails.” (Marx and Werbist 2014”). This conclusion of an empirical study adds to theoretical considerations put forward in the dispute about supposed detrimental effects of welfare state on economic performance (Fadda, 2014).

As a final conclusion it can be said that although acting to prevent excessive gross pre tax-transfers income inequality is preferable, also active appropriate redistribution fiscal and welfare policies are necessary. Unfortunately, both the crisis and the trend impressed in most countries to fiscal consolidation seems to make it difficult to take measure to prevent inequality and to redistribute income. But unless this trend is reversed we are bound to see in the near future a growth rather then a decline in income and wealth inequality.

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APPENDIX

	Inequality / Redistribution	mid-1970s	mid-1980s	around 1990	mid-1990s	around 2000	mid-2000s	around 2010
Australia	A. market income Gini				0.467	0.476	0.465	0.469
	B. DHI - Gini				0.309	0.317	0.315	0.334
	C. Redistribution = A - B				0.158	0.159	0.150	0.135
	A. market income Gini						0.482	0.478
	B. DHI - Gini						0.269	0.262
	C. Redistribution = A - B						0.213	0.216
	A. market income Gini	0.385	0.395	0.403	0.430	0.440	0.436	0.447
	B. DHI - Gini	0.304	0.293	0.287	0.289	0.318	0.317	0.320
	C. Redistribution = A - B	0.081	0.102	0.116	0.141	0.122	0.119	0.127
Czech Republic	A. market income Gini				0.442	0.472	0.461	0.449
	B. DHI - Gini			0.232	0.257	0.260	0.259	0.256
	C. Redistribution = A - B				0.185	0.212	0.202	0.193
Denmark	A. market income Gini		0.373	0.396	0.417	0.416	0.416	0.429
	B. DHI - Gini		0.221	0.226	0.215	0.227	0.232	0.252
	C. Redistribution = A - B		0.152	0.170	0.202	0.189	0.184	0.177
Finland	A. market income Gini		0.387		0.479	0.478	0.483	0.479
	B. DHI - Gini		0.209		0.218	0.247	0.254	0.260
	C. Redistribution = A - B		0.178	0.000	0.261	0.231	0.229	0.219
France	A. market income Gini				0.473	0.490	0.485	0.505
	B. DHI - Gini				0.277	0.287	0.288	0.303
	C. Redistribution = A - B				0.196	0.203	0.197	0.202
Germany	A. market income Gini		0.439	0.429	0.459	0.471	0.499	0.492
	B. DHI - Gini		0.251	0.256	0.266	0.264	0.285	0.286
	C. Redistribution = A - B		0.188	0.173	0.193	0.207	0.214	0.206

Greece	A. market income Gini						0.471	0.522
	B. DHI - Gini	0.424	0.345		0.345	0.354	0.340	0.337
	C. Redistribution = A - B						0.131	0.185
Israel	A. market income Gini		0.472	0.476	0.494	0.504	0.513	0.501
	B. DHI - Gini		0.326	0.329	0.338	0.347	0.378	0.376
	C. Redistribution = A - B		0.146	0.147	0.156	0.157	0.135	0.125
Italy	A. market income Gini		0.386	0.402	0.465	0.472	0.510	0.503
	B. DHI - Gini		0.287	0.275	0.326	0.321	0.330	0.319
	C. Redistribution = A - B		0.099	0.127	0.139	0.151	0.180	0.184
Japan	A. market income Gini		0.345		0.403	0.432	0.462	0.488
	B. DHI - Gini		0.304		0.323	0.337	0.329	0.336
	C. Redistribution = A - B		0.041		0.080	0.095	0.133	0.152
Luxembourg	A. market income Gini						0.467	0.464
	B. DHI - Gini		0.247		0.259	0.261	0.277	0.270
	C. Redistribution = A - B						0.190	0.194
Netherlands	A. market income Gini	0.426	0.473	0.474	0.484	0.424	0.426	0.424
	B. DHI - Gini	0.263	0.272	0.292	0.297	0.292	0.284	0.288
	C. Redistribution = A - B	0.163	0.201	0.182	0.187	0.132	0.142	0.136
New Zealand	A. market income Gini		0.408	0.468	0.488	0.484		0.454
	B. DHI - Gini		0.271	0.318	0.335	0.339	0.335	0.317
	C. Redistribution = A - B		0.137	0.150	0.153	0.145		0.137
Norway	A. market income Gini		0.351		0.404	0.426	0.447	0.423
	B. DHI - Gini		0.222		0.243	0.261	0.276	0.249
	C. Redistribution = A - B		0.129	0.000	0.161	0.165	0.171	0.174
Sweden	A. market income Gini	0.389	0.404	0.408	0.438	0.446	0.432	0.441
	B. DHI - Gini	0.212	0.198	0.209	0.211	0.243	0.234	0.269
	C. Redistribution = A - B	0.177	0.206	0.199	0.227	0.203	0.198	0.172
United Kingdom	A. market income Gini	0.378	0.469	0.490	0.507	0.512	0.503	0.523
	B. DHI - Gini	0.269	0.309	0.355	0.337	0.352	0.335	0.341
	C. Redistribution = A - B	0.109	0.160	0.135	0.170	0.160	0.168	0.182
United States	A. market income Gini	0.406	0.436	0.450	0.477	0.476	0.486	0.499
	B. DHI - Gini	0.316	0.340	0.349	0.361	0.357	0.380	0.380
	C. Redistribution = A - B	0.090	0.096	0.101	0.116	0.119	0.106	0.119

Sources: Data are obtained from the OECD.Stat (extracted on 30 Oct 2013). Data elaborated by the authors.

Notes: The table shows the extent of inequality for a selection of OECD countries. Inequality is measured with Gini coefficient for the whole population using household equivalized (OECD scale) market income (A. Market income Gini) or household equivalized disposable income (B. DHI-Gini) obtained by subtracting direct taxes and transfers to market income. The extent of redistribution is obtained by subtracting the two Gini indexes (C. Redistribution = A-B). A different measure of the redistribution power of government fiscal intervention (D. Redistribution (only working age) is obtained by subtracting Gross and Net Gini based on the working age population only (15-65 years).

Table taken from: Smeeding 2013