Introduction

In the middle of the twentieth century, it came to be believed that ‘a rising tide lifts all boats’: economic growth would bring increasing wealth and higher living standards to all sections of society. At the time, there was some evidence behind that claim. In industrialized countries in the 1950s and 60s every group was advancing, and those with lower incomes were rising most rapidly.

In the economic and political debate, this ‘rising tide hypothesis’ evolved into a much more specific idea, according to which regressive economic policies – ones which favor the richer classes – would end up benefiting everyone. Resources given to the rich would inevitably ‘trickle down’ to the rest – a modern version of the old-fashioned ‘trickle-down economics’. It is important to clarify that this trickle-down notion did not follow from the post-war evidence. The ‘rising-tide hypothesis’ was equally consistent with a ‘trickle-up’ theory – give more money to those at the bottom and everyone will benefit; or with a ‘build-out from the middle’ theory – help those at the center and both those above and below will benefit.

Today the trend to greater equality of incomes, which characterized the post-war period, has been reversed. Inequality is now rising rapidly. Contrary to the rising-tide hypothesis, extraordinary growth in top incomes has been going along with economic slowdown and stagnating real incomes for the majority of households.

The trickle-down notion – along with its theoretical justification, marginal productivity theory – needs urgent rethinking. That theory attempts both to explain inequality – why it occurs – and to justify it – why it would be beneficial for the economy as a whole. This chapter looks critically at both claims. It argues in favor of alternative explanations of inequality, with particular reference to the theory of rent-seeking and to the influence of institutional and political factors, which have shaped labor markets and patterns of remuneration. And it shows that, far from being either
necessary or good for economic growth, excessive inequality tends to lead to weaker economic performance. It argues therefore for a range of policies which would increase both equity and economic wellbeing.

1. The great rise of inequality

Let us start by examining the ongoing trends in income and wealth. In the last three decades, those at the top have done very well, especially in the US. Between 1980 and 2013, the richest 1% have seen their average real income increase by 142% (from $461,910, adjusted for inflation, to $1,119,315) and their share of national income double, from 10% to 20%. The top 0.1% have fared even better. Over the same period, their average real income increased by 236% (from $1,571,590, adjusted for inflation, to $5,279,695) and their share of national income almost tripled, from 3.4 to 9.5%1.

Over the same 33 years, median household income grew by only 9%. And this growth actually occurred only in the very first years of the period: between 1989 and 2013 it shrank by 0.9%2. But even this underestimates the extent to which those at the bottom have suffered – their incomes have only done as well as they have because hours worked have increased. Between 1979 and 2007, workers in the bottom fifth of the wage distribution increased their average annual work hours by 22 percent – a greater increase than for any other quintile.3 Median wages (adjusted for inflation) increased by only 5 percent from 1979 to 2012, even though at the same time productivity grew by 74.5 percent (Figure 1).4 And these statistics underestimate the true deterioration in workers’ wages, for education levels have increased (the percentage of Americans who are college graduates has nearly doubled since 1980, to 30 percent),5 so that one should have expected a significant increase in wage rates. In fact, average real hourly wages for all Americans with only a high school diploma or a bachelor’s degree have decreased in the last three decades.6 7

In the first three years of the so-called recovery from the Great Recession of 2008-2009 – in other words, since the U.S. economy returned to growth – 91% of the gains in income have gone to the top 1%.8 Bush and Obama both tried a trickle down strategy—giving massive amounts of money to the banks and the bankers. The idea was simple: by saving the banks and bankers, all
would benefit. The banks would restart lending. The wealthy would create more jobs. This strategy, it was argued, would be far more efficacious than helping homeowners, businesses, or workers directly. The US Treasury typically demands that when money is given to developing countries, conditions be imposed on them, to ensure not only that the money is used well, but that the country adopts economic policies that (according to their economic theories) will lead to growth. But no conditions, e.g. to lend more or to stop their abusive practices, were imposed on the banks, for fear that the bankers would get upset and not respond in the way hoped. The rescue worked in enriching those at the top; but the benefits did not trickle down to the rest of the economy.

The Fed, too, tried trickle-down economics. One of the main channels by which Quantitative Easing was supposed to rekindle growth was that it would lead to higher stock market prices – higher wealth for the very rich, who would then spend some of that, and that in turn would benefit the rest.

Both the Fed and the Administration could have tried policies that more directly benefited the rest of the economy: helping homeowners, lending to small and medium sized enterprises, and fixing the broken credit channel. The trickle-down policies were relatively ineffective – one reason that eight years after the US slipped into recession, the economy was still not back to health.

Figure 1 – Wages, productivity and average incomes in the US (1975-2013)
Sources: ‘The State of Working America, 12th ed.’ by the Economic Policy Institute (left panel); T.Piketty and E.Saez (right panel)
1.1 The multiple dimensions of inequality

Wealth is far more concentrated than income. The wealthiest 1% of Americans holds 35% of the wealth, and even more when housing wealth is not counted. Just one example of the extremes of wealth in America is the Walton family: the six heirs to the Walmart empire command a wealth of $145 billion, which is equivalent to the net worth of 1,782,020 average American families.9

Wealth inequality too is on the upswing. For the quarter century before the Great Recession, the rich were getting wealthier at a more rapid pace than everyone else. When the crisis hit, it depleted some of the richest Americans’ wealth because stock prices declined, but many Americans also had their wealth almost entirely wiped out as their homes lost value. After the crisis, the wealthiest 1 percent of households had 225 times the wealth of the typical American, almost double the ratio 30 or 50 years ago. In the years of ‘recovery’, as stock market values rebounded (in part as a result of the Fed’s lopsided efforts to resuscitate the economy through increasing the balance sheet of the rich), the rich have regained much of the wealth that they had lost; the same did not happen to the rest of the country. 10

Inequality plays out along ethnic lines in ways that should be disturbing for a country that had begun to see itself as having won out against racism. Between 2005 and 2009, a huge number of Americans saw their wealth drastically decrease. The net worth of the typical white American household was down substantially, to $113,149 in 2009, a 16 percent loss of wealth from 2005. That’s bad, but the situation is much worse for other groups. The typical African American household lost 53 percent of its wealth—putting its assets at a mere 5 percent of the median white American’s. The typical Hispanic household lost 66 percent of its wealth.11

As disturbing as the data on wealth and income are, those that describe the other dimensions of America’s inequality are even worse. There are, for instance, marked inequalities in health, reflected in differences in life expectancy.12 A study conducted by the US Social Security Administration showed that men born in 1941 who lived past age 60 and had average earnings in the top half of the distribution lived 5.8 years longer than the same cohort in the bottom half of
the earnings distribution. This gap is much larger than it once was, indicating that income may be more predictive of life expectancy than ever before.\textsuperscript{13}

Just as income inequality results in lower overall economic performance (for reasons that we will explain later), health inequality leads to poorer overall health statistics. Despite high per capita expenditure on health care, Americans live on average shorter lives than their counterparts in other high-income countries, a fact partly attributable to its greater inequality. There are many reasons for these inequalities in health outcomes, besides an unequal access to medical care. For example, the poor are more exposed to environmental hazards.\textsuperscript{14}

What is particularly disturbing is the large number of Americans who do not have access to the basic necessities of life. Until the American Affordable Care Act, more than a sixth of Americans had no health insurance. Even though about one in seven Americans depend on the government for basic food, still a comparable number go to bed hungry on a regular basis, not because they are on a diet, but because they or their families cannot afford adequate nutrition.

Probably, the most invidious aspect of America’s inequality is that of opportunities: in the US a young person’s life prospects depend heavily on the income and education of his parents, even more than in other advanced countries\textsuperscript{15}. The American dream is a myth.

A number of studies have noted the link between inequality of outcomes and inequality of opportunities\textsuperscript{16}. When there are large inequalities of income, those at the top can buy for their offspring privileges not available to others, and they often come to believe that it is their right and obligation to do so. And, of course, without equality of opportunity those borne in the bottom of the distribution are likely to end up there: inequalities of outcomes perpetuate themselves. This is deeply troubling: given our low level of equality of opportunity and our high level of inequality of income and wealth, it is possible that the future will be even worse, with still further increases in inequality of outcome and still further decreases in equality of opportunity.
1.2 A generalized international trend

While America has been winning the race to be the most unequal country (at least within developed economies), unfortunately, much of what I have just described for America has been going on elsewhere. In the last 25 years the Gini index – the widely used measure of income inequality – has increased by roughly 22% in Germany, 13% in Canada, 13% in UK, 8% in Italy and 6.4% in Japan (Fig. 3). The more countries follow the American model, the more the results seem to be consistent with what has occurred in the United States. The UK has now achieved the second highest level of inequality among the countries of Western Europe and North America, a marked change from its position before the Thatcher era (Figs. 2 and 3). Germany, which had been among the most equal countries within the OECD, now ranks in the middle.

The enlargement of the share of the pie appropriated by the richest 1% has also been a general trend, and in Anglo-Saxon countries it started earlier and it has been more marked than anywhere else (Fig. 2). In rich countries, such as the US, the concentration of wealth is even more impressive than that of income, and has been rising too. For instance, in the UK the income share of the top 1% went up from 5.7% in 1978 to 14.7% in 2010, while the share of wealth owned by the top 1% surged from 22.6% in 1970 to 28% in 2010 and the top 10% wealth share increased from 64.1% to 70.5% over the same period.

Figure 2 – Income share of the richest 1% in some major industrialized countries

Source: World Top Incomes Database (available at http://topincomes.parisschoolofeconomics.eu/)
Also disturbing are the patterns that have emerged in transition economies, which at the beginning of their movement to a market economy had low levels of inequality in income and wealth (at least according to available measurements). Today, China’s inequality of income, as measured by its Gini coefficient, is roughly comparable to that of the United States and Russia.\textsuperscript{18} Across the OECD, since 1985 the Gini has increased in 17 of 22 countries for which data is available, often dramatically (Figure 3).\textsuperscript{19}

![Figure 3 – Gini coefficient of income inequality in OECD countries (after-tax and transfer)](image)

\textit{Note: income refers to disposable income adjusted for household size.}

\textit{Source: OECD, 'Divided We Stand: why inequality keeps rising', 2011}

Moreover, recent research by Piketty and his coauthors has found that the importance of inherited wealth has increased in recent decades, at least in the rich countries for which we have data. After displaying a decreasing trend in the first post-war period, the share of inheritance flows in disposable income has been increasing in last decades.\textsuperscript{20}
2. Explaining inequality

How can we explain these worrying trends? Traditionally, there has been little consensus among economists and social thinkers on what causes inequality. In the nineteenth century, they strived to explain and either justify or criticize the evident high levels of disparity. Marx talked about exploitation. Nassau Senior, the first holder of the first chair in economics, the Drummond Professorship at All Souls College, Oxford (to which I was appointed in 1976) talked about the returns to capital as a payment for capitalists’ abstinence, for their not consuming. It was not exploitation of labor, but the just rewards for their forgoing consumption. Neoclassical economists developed the marginal productivity theory, which argued that compensation more broadly reflected different individual’s contributions to society.

While exploitation suggests that those at the top get what they get by taking away from those at the bottom, marginal productivity theory suggests that those at the top only get what they add. The advocates of this view have gone further: they have suggested that in a competitive market exploitation (e.g. as a result of monopoly power or discrimination) simply couldn’t persist, and that additions to capital would cause wages to increase, so workers would be better off thanks to the savings and innovation of those at the top.

More specifically, marginal productivity theory maintains that, due to competition, everyone participating in the production process earns a remuneration equal to her or his marginal productivity. This theory associates higher incomes with a greater contribution to society. This can justify, for instance, preferential tax treatment for the rich: by taxing high incomes we would deprive them of the ‘just deserts’ for their contribution to society, and, even more importantly, we would discourage them from expressing their talent. Moreover, the more they contribute—the harder they work and the more they save—the better it is for workers, whose wages will rise as a result.

The reason that these ideas justifying inequality have endured is that they have a grain of truth in them. Some of those who have made large amounts of money have contributed greatly to our society, and in some cases what they have appropriated for themselves is but a fraction of what they have contributed to society. But this is only a part of the story: there are other possible
causes of inequality. Disparity can result from exploitation, discrimination and exercise of monopoly power. Moreover, in general, inequality is heavily influenced by many institutional and political factors – industrial relations, labor market institutions, welfare and tax systems, etc. – which can both work independently of productivity and affect productivity.

That the distribution of income cannot be explained just by standard economic laws is suggested by the fact that the before-tax and transfer distribution of income differs markedly across countries. France and Norway are examples of OECD countries that have managed by and large to resist the trend of increasing inequality (Figures 2 and 3). The Scandinavian countries have a much higher level of equality of opportunity, regardless of how that is assessed. Marginal productivity theory is meant to be a universal economic law. Neoclassical theory taught that one could explain economic outcomes without reference, for instance, to institutions. A society’s institutions were simply a façade; driving economic behavior were the underlying laws of demand and supply, and the economists’ job was to understand these underlying forces. Thus, the standard theory cannot explain how countries with similar technology, productivity and per capita income can differ so much in their before-tax distribution.

The evidence, though, is that institutions do matter. Not only can the effect of institutions be analyzed, but institutions can themselves often be explained, sometimes by history, sometimes by power relations, and sometimes by economic forces (like information asymmetries) left out of the standard analysis. Thus, a major thrust of modern economics is to understand the role of institutions in creating and shaping markets. The question then is: what is the relative role, the relative importance of these alternative hypotheses? There is no easy way of providing a neat quantitative answer, but recent events and studies have lent persuasive weight to theories putting greater weight on rent-seeking and exploitation. Let us discuss this evidence (Sec.2.1), before turning to the institutional and political factors which are at the root of the recent structural changes in income distribution (in Sec. 2.2).

2.1 Rent-seeking as a key factor behind rising top incomes
The term ‘rent’ was originally used to describe the returns to land, since the owner of the land receives these payments by virtue of his ownership and not because of anything he does. The term was then extended to include monopoly profits (or monopoly rents), the income that one receives simply from control of a monopoly, and in general returns due to similar ownership claims. Thus, rent-seeking means getting an income not as a reward to creating wealth but by grabbing a larger share of the wealth that would have been produced anyway without their effort. Even worst, rent-seekers typically destroy wealth, as a byproduct of their taking away from the others. A monopolist who overcharges for his product takes money from those whom he is overcharging and at the same time destroys value. To get his monopoly price, he has to restrict production.

Growth in top incomes in the last three decades has been driven mainly by two categories: those in the financial sector (both executives and professionals) and non-financial executives. Evidence suggests that rents have contributed largely to the strong increase in the incomes of these two categories.

Let us first consider executives in general. That the rise in their compensation has not reflected productivity is indicated by the lack of correlation between managerial pay and firm performance. Already in 1990 Jensen and Murphy, by studying a sample of 2,505 CEOs in 1,400 companies, found that annual changes in executive compensation did not reflect changes in corporate performance. Later, the work of Bebchuk, Fried and Grinstein has shown that the huge increase in US executive compensation since 1993 cannot be explained by firm performance or industrial structure and that, instead, it has mainly resulted from flaws in corporate governance, which, in practice, enabled managers to set their own pay. Mishel and Sabadish have examined 350 firms, showing that growth in the compensation of their CEOs largely outpaced the increase in their stock market value. Most strikingly, executive compensation displayed substantial positive growth even during periods when stock market values decreased.

There are other reasons to be suspect of the standard marginal productivity theory. In the United States the ratio of CEO pay to that of the average worker increased from around 20 to 1 in 1965
to 300 to 1 in 2013. There was no change in technology that could explain a change in relative productivity of that magnitude—and no explanation for why that change in technology would occur in the US and not in other similar countries. Moreover, the design of corporate compensation schemes made it evident that it was not intended to reward effort: typically, they were related to the performance of the stock, which would rise and fall depending on many factors outside the control of the CEO, such as market interest rates and the price of oil. It would have been easy to design a higher power incentive structure with less risk, simply by basing compensation on relative performance, relative to a group of comparable companies. Finally, the battles in which I participated in the Clinton Administration, focusing on tax systems which encouraged so-called performance pay (without imposing conditions to ensure that pay was actually related to performance) and disclosure requirements (which would have enabled market participants to assess better the extent of stock dilution associated with CEO stock option plans) clarified the battle lines: those pushing for favorable tax treatment and against disclosure understood well that these arrangements would have facilitated greater inequalities in income.

For specifically the rise in top incomes in the financial sector, the evidence is even more unfavorable to explanations based on marginal productivity theory. An empirical study by Philippon and Reshef shows that in the last two decades workers in the financial industry have enjoyed a huge ‘pay-premium’ with respect to similar sectors, which cannot be explained by the usual proxies for productivity (like the level of education or unobserved ability). According to their estimates, financial sector compensations have been about 40% higher than the level that would have been expected under perfect competition.

It is also well documented that ‘too big to fail’ banks enjoy a rent due to implicit State guarantee. Investors know that these large financial institutions can count, in effect, on a government guarantee, and thus they are willing to provide them funds at lower interest rates. The big banks can thus prosper not because they are more efficient or provide better service but because they are in effect subsidized by taxpayers. Clearly, the rents enjoyed in this way by big banks translated into higher incomes for their managers and shareholders.
In the financial sector even more than in other industries, executive compensation in the aftermath of the crisis provided convincing evidence against marginal productivity theory as an explanation of wages at the top: the bankers who had brought their firms and the global economy to the brink of ruin continued to receive large pay—compensation which in no way could be related either to their social contribution or even their contribution to the firms for which they worked (both of which were negative). For instance a study which focused on Bear Sterns and Lehman Brothers in 2000-2008 has found that the top executive managers of these two giants have brought home huge amounts of ‘performance-based’ compensations (estimated in $1 billion for Lehman and 1.4 for Bear Stearns), which were not clawed back when the two firms collapsed.

Still another piece of evidence supporting the importance of rent-seeking in explaining the increase in inequality is provided by those studies which have showed that increases in taxes at the very top do not result in decreases in growth rates. If these incomes were a result of their efforts, we might have expected those at the top to respond by working less hard, with adverse effects on GDP.\(^{31}\)

*Interpreting key stylized facts\(^{32}\)*

Three striking aspects of the evolution of most rich countries in the last 35 years are (a) the increase in the wealth to income ratio; (b) the stagnation of median wages; (c) the failure of the return to capital to decline. Standard neoclassical theories, in which ‘wealth’ is equated with ‘capital’, would suggest that the increase in capital should be associated with a decline in the return to capital and an increase in wages. The failure of wages of unskilled workers to increase has been attributed by some (especially in the 1990s) to skill-biased technological change, which increased the premium put by the market on skills. Hence, those with skills would see their wages rise, and those without skills would see them fall. But recent years have seen a decline in the wages paid even to skilled workers. Moreover, as my recent research shows\(^{33}\), average wages should have increased, even if some wages fell. Something else must be going on.
There is an alternative—and more plausible—explanation for these three stylized facts. It is based on the observation that rents are increasing (due to the increase in land rents, intellectual property rents, monopoly power and other forms of exploitation). As a result, the value of those assets which are able to provide rents to their owners—like land, houses and some financial claims—is rising proportionally. So overall wealth increases, but this does not lead to an increase in the productive capacity of the economy or in the mean marginal productivity or average wage of workers; to the contrary, wages may stagnate or even decrease, because the rise in the share of rents has happened at the expense of wages.

The assets which are driving the increase in overall wealth, in fact, are not produced capital goods, and in many cases, they are not even ‘productive’ in the usual sense; they are not directly related to the production of goods and services.\textsuperscript{34} With more wealth put into these assets, there may be less invested in real productive capital. In the case of many countries where we have data (like France) there is evidence that this is in fact the case: a disproportionate part of savings in recent years has gone into the purchase of housing, which did not increase the productivity of the ‘real’ economy.

Monetary policies that lead to low interest rates can increase the value of these ‘unproductive’ fixed assets—an increase in the value of wealth that is unaccompanied by any increase in the flow of goods and services. By the same token, a bubble can lead to an increase in wealth—for an extended period of time—again with possible adverse effects on the stock of ‘real’ productive capital. Indeed, it is easy for capitalist economies to generate such bubbles (a fact that should be obvious from the historical record,\textsuperscript{35} but which has been confirmed in theoretical models.\textsuperscript{36}) There has been a ‘correction’ in the housing bubble (and in the underlying price of land); but we should not be confident that there has been a \textit{full} correction. We still may be on a ‘bubble’ trajectory. The increase in the wealth-income ratio may still have more to do with an increase in the value of rents than with an increase in the amount of productive capital. Those that have access to financial markets—those that can get credit from banks (typically those already well off) can purchase these assets, using them as collateral. As the bubble takes off, so does their wealth and society’s inequality. Again, policies amplify the resulting inequality: favorable tax treatment of capital gains enables especially high after-tax returns on these assets and increases
the wealth especially of the wealthy, who disproportionately own such assets (and understandably so, since they are better able to withstand the associated risks).

**2.2 The role of politics and institutions**

The large incidence of rent-seeking in the rise of top incomes undermines the marginal productivity theory of income distribution. Their income and wealth comes at least partly at the expense of others—just the opposite conclusion from that which emerges from trickle-down economics. When, for instance, a monopoly succeeds in raising the price of the goods which it sells, it lowers the *real* income of everyone else. Instead, it suggests that institutional and political factors play an important role in influencing the relative shares of capital and labor.

As we noted earlier, in the last three decades wages have grown much less than productivity (Fig.1)—a fact which is hard to reconcile with marginal productivity theory but is consistent with increased exploitation. This suggests that the weakening of workers’ bargaining power has been a major factor. Weak unions and asymmetric globalization, where capital is free to move while labor is much less so, are thus likely to have contributed significantly to the great surge of inequality.

The way globalization has been managed has led to lower wages in part because workers’ bargaining power has been eviscerated. With capital highly mobile—and with tariffs low—firms can simply tell workers that if they don’t accept lower wages and worse working conditions, the company will move elsewhere. To see how asymmetric globalization can affect bargaining power, imagine, for a moment, what the world would be like if there was free mobility of labor, but no mobility of capital. Countries would compete to attract workers. They would promise good schools and a good environment, as well as low taxes on workers. This could be financed by high taxes on capital. But that’s not the world we live in, and that’s partly because the 1 percent, the corporate interests who play such an important role in shaping our trade and other international agreements, don’t want it to be that way.
In most industrialized countries there has been a decline in union membership and influence; this decline has been especially strong in the Anglo-Saxon world. This has created an imbalance of economic power and a political vacuum. Without the protection afforded by a union, workers have fared even more poorly than they would have otherwise. The inability of unions to protect workers against the threat of job loss by the moving of jobs abroad has contributed to weakening the power of unions. But also politics has played a major role: think of Reagan’s breaking of the air traffic controllers strike in the US in 1981 or of Thatcher’s battle against the National Union of Mineworkers in the UK.

Central bank policies focusing on inflation have almost surely been a further factor contributing to the growing inequality and the weakening of workers’ bargaining power. As soon as wages start to increase, and especially if they increase faster than the rate of inflation, central banks focusing on inflation raise interest rates. The result is a higher average level of unemployment and a downward ratcheting effect on wages: as the economy goes into recession, real wages often fall; and then monetary policy is designed to ensure that they don’t recover.

Inequalities are affected not just by the legal and formal institutional arrangements (e.g. the strength of unions) but also by social custom, including whether it is viewed as acceptable to engage in discrimination. There is some evidence that America’s large increase in inequality in the last third of a century is related to a change in social custom, in the bonds between corporate executives and their workers, in what might be called the social contract. Corporate governance laws had long allowed executives to take a larger share of the corporate pie for themselves. It was roughly at the time of the Reagan revolution that it became acceptable (in their eyes) for them to do so. (Interestingly, many executives of earlier eras have been critical of such executive behavior.)

Governments have been lax in enforcing anti-discrimination laws, and contrary to the suggestion of free-market economists, but consistent with even casual observation of how markets actually behave, discrimination has been a persistent aspect of market economies, and helps explain much of what has gone on at the bottom. The discrimination takes on many forms—in housing markets, in financial markets (at least one of America’s large banks had to pay a very large fine
for its discriminatory practices in the run up to the crisis), and in labor markets. There is a large literature explaining how such discrimination can (and does) persist.\textsuperscript{38, 39}

Of course, market forces—the balancing of, say, the demand and supply for skilled workers, affected as it is by changes in technology and education—play an important role as well, even if those forces are partially shaped by politics. But instead of these market forces and politics balancing each other out, with the political process dampening the increase in inequality in periods when market forces might have led to growing disparities, and instead of government tempering the excesses of the market, in the rich countries today the two have been working together to increase income and wealth disparities.

3. The price of inequality

The evidence is thus unsupportive of explanations of inequality solely centered on marginal productivity. But what of the argument that we need inequality to grow?

A first justification for the claim that inequality is necessary for growth focuses on the role of savings and investment in promoting growth, and is based on the observation that those at the top save, while those at the bottom typically spend all of their earnings. Countries with a high share of wages will thus not be able to accumulate capital as rapidly as those with a low share of wages. The only way to generate savings required for long-term growth is thus to ensure sufficient income for the rich.

This argument is particularly inapposite today, where the problem is, to use Bernanke’s term, a global savings glut.\textsuperscript{40} But even in those circumstances where growth would be increased by an increase in national savings, there are better ways of inducing savings than increasing inequality. The government can tax the income of the rich, and use the funds to finance either private or public investment; such policies reduce inequalities in consumption and disposable income, and lead to increased national savings (appropriately measured).
A second argument centers around the popular misconception that those at the top are the job creators; and giving more money to them will thus create more jobs. Industrialized countries are full of creative entrepreneurial people throughout the income distribution. What creates jobs is demand: when there is demand, firms will create the jobs to satisfy that demand (especially if we can get the financial system to work in the way it should, providing credit to small and medium-sized enterprises). And unfortunately, given the distorted tax systems in many Western countries, for too many at the top, there are incentives to destroy jobs at home by moving them abroad.

In fact, as empirical research by the IMF has shown, inequality is associated with economic instability. In particular, IMF researchers have shown that growth spells tend to be shorter when income inequality is high. This result holds also when other determinants of growth duration (like external shocks, property rights and macroeconomic conditions) are taken into account and is economically relevant: on average, a 10-percentile decrease in inequality increases the expected length of a growth spell by one half. The picture does not change if one focuses on medium-term average growth rates instead of growth duration. Recent empirical research, released by the OECD, shows that income inequality has a negative and statistically significant effect on medium-term growth. It estimates that in countries like the US, the UK and Italy overall economic growth would have been six to nine percentage points higher in the last two decades, had income inequality not risen.

There are different channels through which inequality harms the economy. First, inequality leads to weak aggregate demand. The reason is easy to understand: those at the bottom spend a larger fraction of their income (they need to, just to get by) than those at the top. The problem is compounded by the flawed responses to this weak demand by monetary authorities, by lowering interest rates and relaxing regulations, which can easily give rise to a bubble, the bursting of which leads in turn to recessions.

Many interpretations of the current crisis have indeed emphasized the importance of distributional concerns. The growing inequality would have led to lower consumption but for the effects of loose monetary policy and lax regulations, which led to a housing bubble and a consumption boom. It was, in short, only growing debt that allowed consumption to be
sustained. But it was inevitable that the bubble would eventually break. And it was inevitable that when it broke, the economy would go into a downturn.

Second, inequality of outcomes is associated with inequality of opportunity, and that means that those unfortunate enough to be borne at the bottom of the income distribution are at great risk of not living up to their potential. We thus pay a price not only in terms of a weak economy today, but lower growth in the future. With nearly one in four American children growing up in poverty, many of whom face not just a lack of educational opportunity, but also a lack of access to adequate nutrition and health, the country’s long-term prospects are being put into jeopardy.

A third reason why inequality is bad for the economy is related to the corrosive effect of inequality on morale, especially when it cannot be well-justified (and as we have noted, the inequality evidenced in the US and elsewhere cannot be justified). There is a widespread understanding of the adverse effects of corruption on morale, societal solidarity, and the functioning of the economy. But increasingly, inequality in the US is viewed as unfair, arising out of a corrupt political and economic system.

Further reasons are related to the political economy of inequality. Societies with greater inequality are less likely to make investments in the common good, in say public transportation, infrastructure, technology, and education. The rich don’t need these public facilities, and they worry that a strong government which could increase the efficiency of the economy might at the same time use its powers to redistribute. Moreover, with so many at the top making their money from financial market shenanigans and rent-seeking, we wind up with tax and other economic policies that encourage these kinds of activities rather than more productive activities. When we tax speculators at less than half the rate that we tax workers, and when we give speculative derivatives priority in bankruptcy over workers, and when we have tax laws that encourage job creation abroad rather than at home, we wind up with a weaker and more unstable economy. Reducing these policies – and undertaking other policies that would reduce rent-seeking – would thus not only improve economic performance but also reduce inequality.
The existence of these adverse effects of inequality itself is evidence against explanations of today’s high level of inequality based on marginal productivity theories and for the rent-seeking/exploitation theories. For the basic premise of the marginal productivity theories is that those at the top are simply receiving the just deserts for their efforts, and that the rest of society benefits from their activities. If that were so, we should expect to see higher growth associated with higher incomes at the top. In fact, we see just the opposite.

4. Economic policy created it, economic policy can reverse it

Markets don’t exist in a vacuum. Every aspect of our economic, legal, and social frameworks helps shape inequality: from the education system and how it is financed, to the health system, to tax laws, to our governing bankruptcy, corporate governance, the functioning of our financial system, to anti-trust laws. In virtually every domain, rich countries have made decisions that help enrich the top at the expense of the rest.

The fact that inequality is created by policies—it is not the ineluctable result of exogenous economic forces—means there is a glimmer of hope. Policy created the problem, and it can help get us out of it.

In the past, when the US reached these extremes of inequality, at the end of the 19th century, in the gilded age, or in the Roaring 20s, it pulled back from the brink. It enacted policies and programs that provided hope that the American dream could return to be a reality. Other countries have done likewise: Brazil, torn by even greater inequality than the US, has shown how concerted policies focusing on education and children can bring down inequality within the span of less than two decades. There are policies that could reduce the extremes of inequality and increase opportunity—enabling our countries to live up to the values to which they aspire. There is no magic bullet, but there are a host of policies that would make a difference.

Most of the policies that are needed to reduce inequality are familiar: more support for education, including pre-school; increasing the minimum wage; strengthening the earned-income tax credit; giving more voice to workers in the workplace, including through unions; more effective
enforcement of anti-discrimination laws; and a fairer tax system—one that does not reward speculators or those that take advantage of off-shore tax havens with tax rates lower than honest Americans who work for a living.

We argued that much of the inequality at the top was associated with rent-seeking, and that the rules of the game in the United States and other advanced countries have provided ample scope for rent seeking. We need to make markets work like markets should work: to curb monopoly rents, we need, for instance, better anti-trust laws, and better enforcement of the laws we have. To curb excessive pay of CEOs, we need better corporate governance laws, and better enforcement of the laws we have. To curb the abuses of the financial sector—which has excelled in moving money from the bottom of the economic pyramid to the top, we need better financial sector regulations. We need to curb not just market manipulation and excessive speculative activity, but also predatory and discriminatory lending and abusive credit card practices.

Let me illustrate what can be done by taking a closer look at a few of the policies that could make inroads in our high level of inequality⁴⁸.

Even those arguing for incentive pay systems for senior executives would agree that the design of good executive compensation schemes should provide strong incentives while keeping risk bearing by the executive to a minimum. Executives should not be rewarded for improvements in a firm’s stock market performance for which they play no part. If the Federal Reserve lowers interest rates, and that leads to an increase in stock market prices, CEOs should not get a bonus as a result. If oil prices fall, and so profits of airlines and the value of airline stocks increase, airline CEOs should not get a bonus. There is an easy way of taking account of these gains (or losses) which are not attributable to the efforts of executives: basing performance pay on relative performance of firms in comparable circumstances. The design of good compensation schemes which do this has been well understood for more than a third of a century⁴⁹, and yet executives, one of whose special areas of competence is supposed to be the design of good incentive structures, have almost studiously resisted these insights. They have focused more on taking advantages of deficiencies in corporate governance and the lack of understanding of these issues by many shareholders to try to enhance their earnings—getting high pay when share prices
increase, but figuring out how to get high pay also when share prices fall. But the criticism of stock options is worse: they encourage creative accounting and short-sighted behavior; the result is worse than a zero-sum game, where the gains of the executives come at the expense of the workers: in the long run, as we have seen, economic performance itself is hurt.\footnote{50}

We need macroeconomic policies that maintain economic stability and full employment. Nothing is worse for those at the bottom and the middle than high unemployment. Today, workers are suffering thrice over: from high unemployment, weak wages, and cutbacks in public services, as government revenues are less than they would be were our economies functioning well.

As we have argued, high inequality has weakened aggregate demand. Fuelling asset price bubbles through hyper-expansive monetary policy and deregulation is not the only possible response. Higher public investment—in infrastructures, technology and education—would both revive demand and alleviate inequality, and this would boost growth in the long- and in the short-run. According to a recent empirical study by the IMF, well-designed public infrastructure investment raises output both in the short and long term, especially when the economy is operating below potential. And it doesn’t need to increase public debt in terms of GDP: well implemented infrastructure projects would pay for themselves, as the increase in income (and thus in tax revenues) would more than offset the increase in spending\footnote{51}.

Public investment in education is fundamental to address inequality. A key determinant of workers’ income is the level and quality of education. If governments ensure equal access to education, then the distribution of wages will reflect the distribution of abilities (including the ability to benefit from education) and the extent to which the education system attempts to compensate for differences in abilities and backgrounds. If, as in the United States, those with rich parents by and large have access to better education, then one generation’s inequality will be passed on to the next, and in each generation, wage inequality will reflect income and related inequalities of the previous.
We need to make sure that everyone who has the potential to go to college can do so, no matter what the income of his parents—and to do so without undertaking crushing loans. The US stands out among advanced countries not only in its level of inequality, but also in its treatment of student loans in bankruptcy proceedings. A rich person borrowing to buy a yacht can get a fresh start, and have his loans forgiven; not so for a poor student striving to get ahead. A contingent loan program of the kind employed by Australia shows that there are alternatives—ways which provide access to all who can benefit from a college education without imposing the risks of hardship as in the United States.

The much needed public investments could be financed through fair and full taxation of capital income. This would further contribute to counteract the surge in inequality: it can help bring down the net return to capital, so that those capitalists who save much of their income won’t see their wealth accumulate at a faster pace than the growth of the overall economy, resulting in growing inequality of wealth (which, as we noted, is even greater than the inequality of income).

Special provisions providing for favorable taxation of capital gains and dividends not only distort the economy, but, with the vast majority of the benefits going to the very top, increase inequality. At the same time they impose enormous budgetary costs: 2 trillion dollars over the next ten years in the US, according to the CBO. The elimination of the special provisions for capital gains and dividends, coupled with the taxation of capital gains on the basis of accrual, not just realizations, is the most obvious reform in the tax code that would improve inequality and raise substantial amounts of revenues (and there are many others that I have discussed elsewhere).

If we are to avoid the creation of a new plutocracy, we also have to have a good system of inheritance and estate taxation, and ensure that it is effectively enforced.

**Conclusion**

We used to think of there being a trade-off: we could achieve more equality, but only at the expense of overall economic performance. Now we realize that, especially given the extremes of
inequality achieved in many rich countries and the manner in which they have been generated, greater equality and improved economic performance are complements.

This is especially true if we focus on appropriate measures of growth. If we use the wrong metrics, we will strive for the wrong things. Economic growth as measured by GDP is not enough—there is a growing global consensus that GDP does not provide a good measure of overall economic performance. What matters is whether growth is sustainable, and whether most citizens see their living standards rising year after year. This is the central message of the International Commission on the Measurement of Economic Performance and Social Progress, which I chaired⁵⁴.

Since the beginning of the new millennium, the US economy, and that of most other advanced countries, has clearly not been performing: there has been almost a third of a century of essential stagnation in real median incomes. Indeed, in the case of the US, the problems are even worse and were manifest well before the recession: in the last four decades average wages have stagnated, even though productivity has drastically increased; in the last 25 years, median household income has decreased.

As I have emphasized, a key factor underlying the current economic difficulties of rich countries is growing inequality. We need to focus not on what is happening on average—as GDP leads us to do—but on how the economy is performing for the typical American, reflected for instance in median disposable income. People care about health, fairness and security, and yet GDP statistics do not reflect their decline. Once these and other aspects of societal well-being are taken into account, recent performance in rich countries looks every worse.

We understand the economic policies that are required—we need more investment in public goods; better corporate governance, anti-trust and anti-discrimination laws; a better regulated financial system; and more workers’ rights. We need to ‘rewrite the rules’ governing the market economy, in ways which will lead to more equality in the pre-tax and transfer distribution of income.⁵⁵ We need to have more progressive tax and transfer policies. And indeed, such
policies might themselves result in reducing rent seeking. The question is, will our politics allow these policies to be adopted?


2 Source: US Census Historical Table H-6. It should be clear that median wages could have declined, even though in a panel study, most individuals (families) would have seen an increase in their wages, if there were a sufficiently large number of new entrants into the labor force, and if these new entrants had much lower skills/education than those previously in the labor force.


7 At one time, such results were explained as a result of skill-biased technical change (see G.L.Violante, ‘Skill-Biased Technical Change’, The New Palgrave Dictionary of Economics, Edited by L.Blume and S.Durlauf, 2008, MacMillan), in which case those without skills would see their wages decline, but those with skills should see their wages increase. But an (appropriately) weighted average wage should still rise. (See J. E. Stiglitz, “New Theoretical Perspectives on the Distribution of Income and Wealth among Individuals” paper presented at an IEA/World Bank Roundtable on Shared Prosperity, Jordan, June 10-11, 2014 and to be published in Inequality and Growth: Patterns and Policy, Volume 1: Concepts and Analysis, New York: Palgrave Macmillan, 2015). Data over the last fifteen years, however, during which even the wages of skilled workers have stagnated, implies that something else is going on.


10 That this is the case can be clearly seen by examining what has happened to different kinds of wealth since the end of the crisis. Stocks, which are disproportionately owned by the wealthy, have done very well. Stock market values in the United States increased by $13 trillion from January 2009 to December 2013, according to data from the Center for Research in Security Prices. Meanwhile, home values, which account for much of middle class wealth, have not enjoyed a strong recovery: one fifth of American homes were still underwater as of spring 2014 – their owners owe more on their mortgages than the market says their houses are worth. For a concise discussion of this, see P. Dreier, ‘What Housing Recovery?’, The New York Times, May 8, 2014, available at http://www.nytimes.com/2014/05/09/opinion/what-housing-recovery.html?ref=opinion&r=0.


14 J.Currie, ‘Inequality at Birth: Some Causes and Consequences’ American Economic Review, May, 2011, pp. 1-32. It is noteworthy, though, that even better off Americans with access to health care fare more poorly that those in other countries with equivalent incomes (Institute of Medicine of the National Academies, Op.cit.). This may be because of the greater stress associated with living in an unequal society: the consequences of falling ‘down the ladder’ and the difficulties of climbing up the latter are so much greater.


18 Some caution should be exercised in comparing different countries’ Gini coefficients: in addition to the well-known flaws in the measure, different databases have used slightly different methodologies or income data to arrive at their respective figures, and thus figures are different depending on the data source. Nevertheless, many different studies confirm these broad trends.

One should also be particularly cautious in interpreting differences in Gini coefficients between developed and developing countries. Kuznets (‘Economic growth and income inequality’, The American Economic Review, Vol.XLV, n.1, March 1955, pp.1-28) put forward a persuasive set of reasons that one might expect inequality to increase in the initial stages of development, as some parts of the country and some groups in the country are better able to seize new opportunities and pull away from others. Eventually, the laggards catch up. China’s growth in inequality over the past thirty years is consistent with Kuznets hypothesis; that of the advanced countries is not.


21 For a recent application of this argument in defense of inequality, see N.G.Mankiw, ‘Defending the One Percent’, Journal of Economic Perspectives, Vol.27, No.3, Summer 2013, pp.21-34.


28 For a more extensive discussion of some of these battles and their consequences, see J. E. Stiglitz, Roaring Nineties, W.W. Norton, 2003. There were other later battles, e.g. concerning say in pay and other reforms in corporate governance. For a discussion of the kinds of reforms in tax and corporate governance laws that might make a difference, see J.E. Stiglitz, ‘Rewriting the rules’, The Roosevelt Institute, May 2015


32 This section is based on J.E.Stiglitz ‘New theoretical perspectives on the distribution of income and wealth among individuals’, 2015, NBER Working Paper 21191


34 Though they may be reflected in GDP, and may be related in particular to the value of housing services.


37 As we noted earlier, skill biased technological change might be able to explain declines in unskilled labor; but it is hard to reconcile either the timing of wage changes, or the stagnation even of skilled wages in recent years, with such theories. Moreover, average wages should have increased. It is, of course, possible that average productivity increased while marginal productivity did not. (This cannot, of course, happen in the Cobb-Douglas production function so beloved by macro-economists.) But I have seen no evidence for this sudden change in technology—and no theory for why this might have happened.

38 America’s mass incarceration policies have also been an important instrument of discrimination. See M.Alexander, ‘The New Jim Crow: Mass Incarceration in the Age of Colorblindness’, 2010 New York: The New Press.


40 I’ve argued elsewhere (“Monetary Policy in a Multipolar World,” in Taming Capital Flows: Capital Account Management in an Era of Globalization, IEA Conference Volume No. 154, Joseph E. Stiglitz and Refet S. Gurkaynak (eds.), New York: Palgrave Macmillan, 2015), the problem is not really a savings glut: there are huge needs for investment on the global level. Unfortunately, the global financial system is unable to intermediate—to ensure that the available savings is used to finance the real global investment needs. The consequence is the ‘paradox of thrift’: savings leads to inadequate aggregate demand.

41 A.Berg and J.Ostry, ‘Inequality and unsustainable Growth: Two Sides of the Same Coin?’ IMF Staff Discussion Note No. 11/08, April 2011, International Monetary Fund.


44 This and other arguments in this section are developed at greater length in my book The Price of Inequality: How today’s Divided Society Endangers Our Future, New York: WW Norton, 2012.


47 See http://www.childstats.gov/americaschildren/eco1a.asp

48 In the last chapter of my book, The Price of Inequality, op. cit. I outline 21 such policies, affecting both the distribution of income before taxes and transfers and after.


50 See, e.g. J. E. Stiglitz, Roaring Nineties, W.W. Norton, 2003. More recently, Stiglitz and his colleagues at the Roosevelt Institute have explained how other changes in tax and regulatory policy have contributed to short sighted and dishonest corporate behavior. (See J.E. Stiglitz et al, ‘Rewriting the Rules’, The Roosevelt Institute, May 2015.)

51 IMF, ‘Is it time for an infrastructure push?’ The Macroeconomic Effects of Public Investment’, World Economic Outlook, Chapter 3, October 2014, pp.75-114, available at http://www.imf.org/external/pubs/ft/weo/2014/02/pdf/c3.pdf. Note that the balanced budget multiplier itself provides a framework in which governments can increase investment and stimulate the economy today, without incurring any increase is current deficits—but lowering future deficits and the debt/GDP ratio.

52 More precisely, these are the estimated cost (‘tax expenditures’) associated with these special provisions. See Congressional Budget Office, The Distribution of Major Tax Expenditures in the Individual Income Tax System, May 2013, p.31, available at http://.cbo.gov/sites/default/files/cbofiles/attachments/TaxExpenditures_One-Column.pdf. This figure includes the effects of the ‘step-up of basis at death’ provision, which reduces the taxes that heirs pay on capital gains. Not including this provision, the ten-year budgetary cost of preferential treatment for capital gains and dividends is $1.34 trillion. These calculations do not, however, include the value of the fact that the tax on capital gains is postponed until realization.
