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An empirical assessment of the contribution of financialization and corporate governance to the rise in income inequality

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Abstract

This paper investigates the impact of financialization and changes in corporate governance on income inequality for a sample of 13 OECD countries between 1980 and 2010. Though financialization and changes in corporate governance have been widespread, there has been little empirical analysis of the link between these phenomena and the rise in income inequality. Since the 1980s, many countries liberalized their financial markets, deregulated their labor markets, and corporate governance has increasingly focused on shareholder value. Three decades later, income inequality has grown considerably. Above all, there is an increased stratification at the very top of the income distribution. Regarding this situation, it is argued that financialization and hence changes in corporate governance are relevant contributors to the rise in income inequality.

Our results suggest that a rise in shareholder value orientation measured by stock market capitalization and dividend payments of non-financial corporations, the unemployment rate, technological change and the old age dependency ratio, contribute to the increase in inequality, while union density, trade openness, economic growth and social spending are associated with a decline in inequality. In regard to the top income share, our results suggest that stock market capitalization and dividend payments contributed to the rise in top shares, whereas union density, trade openness, economic growth and top marginal tax rates compress top shares.

JEL Code: D31, F61, F65, F66, G3

Keywords: Gini-coefficient, inequality, top income share, financialization, shareholder value

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1 Introduction

The rise in income inequality has become a major concern for academia and the public. In 2013, the World Economic Forum (WEF) declared income inequality as one out of five urgent topics for the second successive year (WEF 2013). A large and growing literature states that rising inequality was a major cause of the crisis starting in 2007 (compare, for example, Fitoussi and Stiglitz 2009, Hein 2012, Palley 2012, Rajan 2010, van Treeck and Sturn 2012).

Indeed, income inequality increased in almost all OECD countries, but the timing and the trends differ considerably (OECD 2011). Anglo-Saxon countries already began to experience rising trends in inequality in the late 1970s and early 1980s. By the end of the 1980s, the phenomenon of rising inequality became more widespread, and by the 2000s, countries that were previously considered (more) egalitarian also became affected. High-income concentration is also indicated by the development of top income shares (Piketty and Saez 2003, 2006). Since the 1980s, top income shares increased tremendously in Anglo-Saxon countries, and much of this increase was driven by a rapid rise in wage income and entrepreneurial income, whereas top shares in Continental European countries developed rather moderately (Alvaredo and Piketty 2009, Atkinson et al. 2011).

The literature on income inequality is extensive and as such difficult to classify. Broadly speaking, economists often analyze the role of technological change, globalization and the role of (labor market) institutions. Sociologists and political scientists frequently analyze the role of power resources, i.e. the role of unions and leftist governments as well as the role of the welfare state in shaping stratification. Recently, concerns have been raised that fiscal consolidation increases inequality (Agnello and Sousa 2012, Ball et al. 2013) and hence, welfare states lose the ability to reduce inequality.

In the present paper, we suggest that the rise in income inequality is partly driven by financialization and changes in corporate governance. A growing literature suggests that developments at the company level have an impact regarding rising wage inequality (compare, for example, Fligstein and Shin 2004, Lin and Tomaskovic-Devey 2013, Sjöberg 2009). The concept of shareholder value orientation, in particular, seems to contribute to a rise in wage dispersion. Remuneration of corporate officers, which is often performance based, has reached incredible heights, while real wages of ordinary workers have stagnated or even declined. We

believe that financialization and the shareholder value movement have contributed to rising inequality: While on the one hand, a change in corporate governance towards shareholder value contributes to a rise in wage dispersion, on the other hand, asset holders are the beneficiaries of this trend, since they obviously benefit from an increase in the dividend payout ratio and rising stock prices.

We argue that financialization and neoliberalism are two complementary concepts with multiple dimensions; i.e. policies that weakened labor market institutions, the change in bargaining power of workers, which is affected by the threat of foreign competition, the threat of relocating production plants, the decline in union membership, and the changes in power relations imposed by a corporate governance system that is exposed to the capital market.

As such, the present paper contributes to the research on inequality by analyzing the role of financialization and adding an institutional perspective of the company level. The paper is structured as follows. In a first step, trends in income inequality are presented for 13 OECD countries. Thereby, we first highlight the development of market income, i.e. income before taxes and transfer payments, followed by a representation of disposable income, i.e. income after taxes and transfer payments. This last indicator shows how successful countries are in redistributing income and thereby creating a more equal society. Further, we elaborate on the development of top income shares. The next section will introduce the hypothesis laid out in this paper regarding the contribution of financialization and changes in corporate governance to the rise in income inequality. Then, we provide a short discussion of other possible determinants of income inequality. In the next section, we turn to the empirical analyses by first introducing the data set and the estimation strategy, followed by a discussion of the results. The last section presents the conclusion.

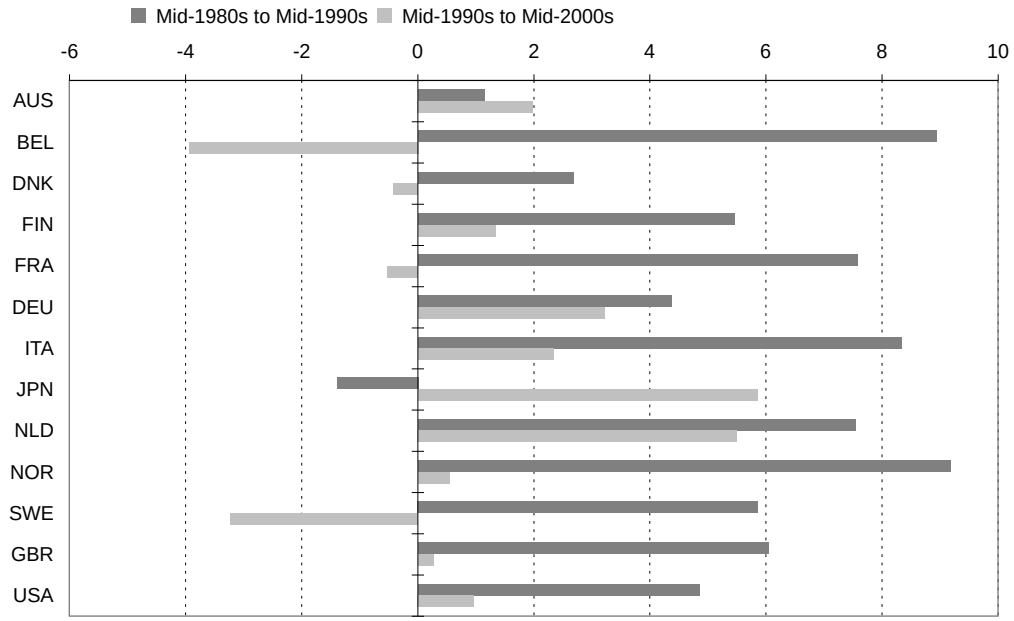
2 Trends in income inequality

Income inequality is often measured by the Gini coefficient. The cumulative percentage of household (or personal) income is plotted against the cumulative percentage of households (or persons). The 45-degree line from the origin represents perfect equality; the Lorenz Curve shows

the actual distribution. The Gini coefficient is the ratio of the area between the line of equality and the Lorenz Curve divided by the total area under the line of equality.[1]

Since the 1980s, income inequality increased in almost all OECD countries, though both the development and the levels differ considerably (OECD 2011). Figure 1 presents the percentage point changes in Gini coefficients of market income for two time periods: the mid-1980s to mid-1990s and for the mid-1990s to mid-2000s. In almost all countries, inequality in the distribution of market income increased considerably in the first period; i.e. between the mid 1980s and the mid-1990s; with Japan being the only country where inequality declined. Inequality also increased in the second sub-period; although to a lesser extent. Belgium, Denmark France and Sweden even experienced a decline in inequality.

Figure 1: Percentage point change in Gini coefficient of market income



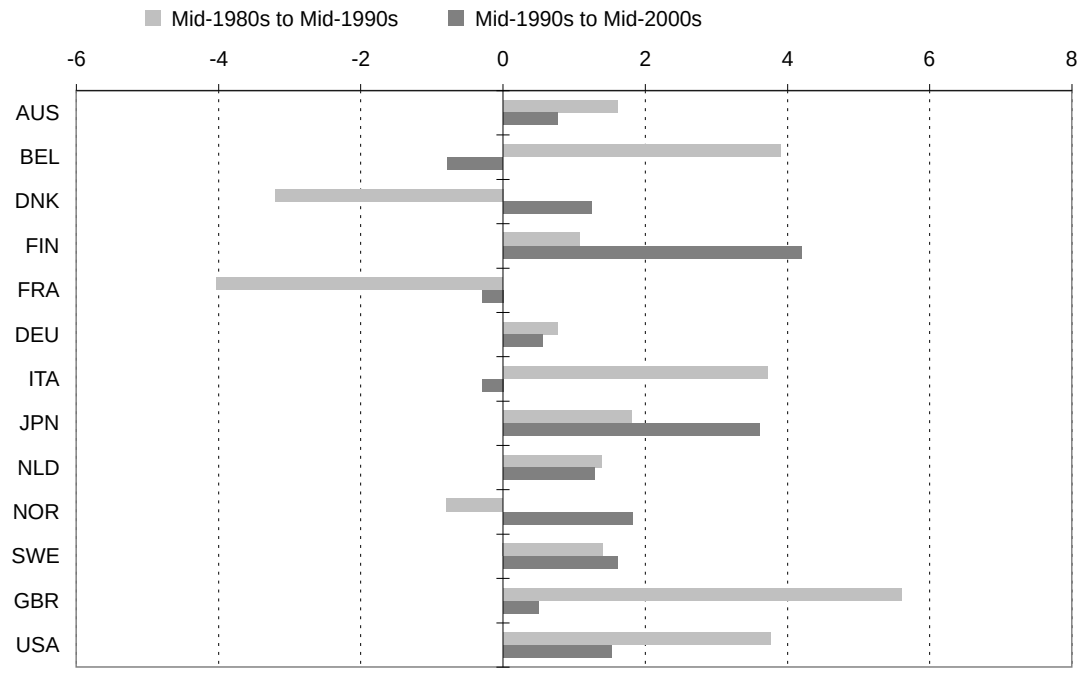
Source: Solt (2009) Standardized World Income Inequality Database (SWIID 4.0)

Figure 2 shows the percentage point change in Gini coefficients of disposable income, i.e. after taxes and transfer payments. This indicator shows how government policies manage to redistribute income.

[1] Hence, in the case of perfect equality the Gini coefficient would be zero (every household receives the same income), whereas the Gini coefficient of perfect inequality would be one.

The first sub-period saw an especially large increase in inequality of disposable income in Anglo-Saxon countries, but also in Belgium and Italy, whereas Denmark, France and Norway successfully reduced inequality of disposable income. The second sub-period shows that former more egalitarian states like the Nordic countries saw a larger increase in inequality. Though one has to acknowledge that even though inequality increased also in former more egalitarian countries, the levels between them and Anglo-Saxon countries still differ considerably.

Figure 2: Percentage point change in Gini coefficients of disposable income



Source: Solt (2009) Standardized World Income Inequality Database (SWIID 4.0)

The difference between the Gini coefficient of market and disposable income can be regarded as a rough indicator for the degree of redistribution.[2]

Table 1 documents the degree of redistribution that was achieved via taxes and transfer payments, expressed in percent, for the period between the mid 1980s and mid 1990s and for the time between the mid 1990s and mid 2000s. The Nordic countries exhibited the highest degree of redistribution; with reductions ranging between 37 and almost 50 percent. However, the degree of

[2] For a critical discussion, compare Brandolini and Smeeding (2009).

redistribution is also high in Germany and France, whereas the USA and Japan experienced only a low degree of redistribution, which even declined during the second period under investigation.

Table 1: Degree of redistribution (difference between gini coefficient of market and disposable income, in percent of the gini coefficient of market income)

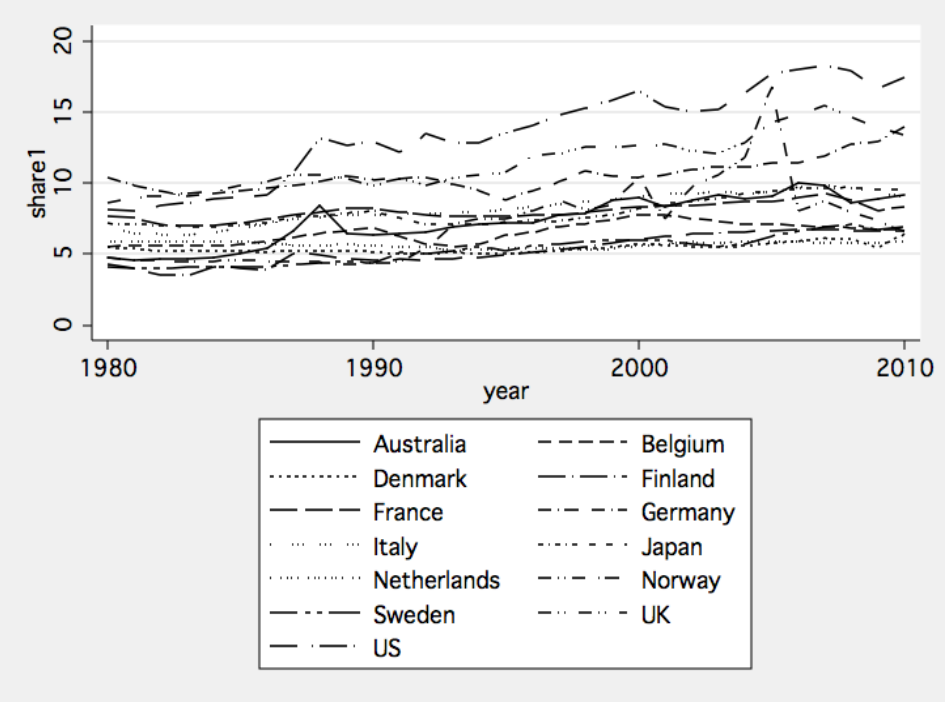
Country	mid 1980s – mid 1990s	mid 1990s – mid 2000s
Australia	22.86	25.49
Belgium	22.63	26.25
Denmark	42.49	47.49
Finland	46.43	42.61
France	28.39	39.44
Germany	35.75	40.68
Italy	22.34	25.59
Japan	17.95	14.86
Netherlands	28.67	36.30
Norway	36.96	42.92
Sweden	49.79	47.00
United Kingdom	27.69	26.90
United States	20.92	19.98

Source Solt (2009) Standardized World Income Inequality Database (SWIID 4.0)

One development that stands out in particular is the rise in the share of very high incomes. The work by Piketty and Saez (2003, 2006), which refers to pre-tax income, shows that since the 1970s, top income shares increased tremendously in Anglo-Saxon countries. The development of top income shares in Continental European countries evolved in a fairly stable manner, whereas top income shares in Sweden and Norway started to increase substantially by the 1990s. Figure 3 presents the top 1 percent income share for 13 OECD countries. Though the developments and the levels differ considerably, we see, except for the Netherlands, an increasing trend in all countries. Hence, the development of top income shares resembles those of Gini coefficients that are based on household surveys: we observe an increase in income inequality starting in the early 1980s, which is, however, much more accentuated in Anglo-Saxon countries compared to Continental European countries. Further, also the timing of the rise in top income shares corresponds to the increase in inequality in market income (Corneo 2009). As Leigh (2007) has confirmed, top income shares have a strong and significant relationship with other measures of inequality, including Gini coefficients.

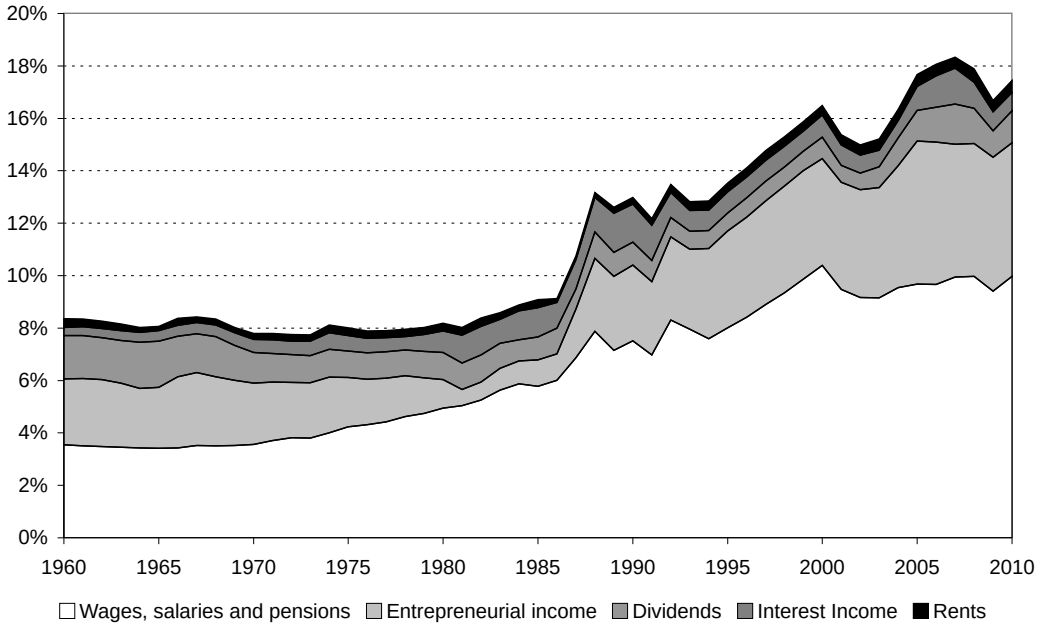
Figure 4 shows the top 1 percent income share and its composition for the USA for the years 1980 until 2010. What becomes apparent from this figure is the fact that until 2000, the increase was largely driven by an increase in wages, salaries and pensions and on the other hand by entrepreneurial income, whereas the contribution of capital income increased only by the mid 2000s.

Figure 3: Top 1 percent income share; 13 OECD countries, 1980-2010



Source: Solt (2009) Standardized World Income Inequality Database (SWIID 4.0)

Figure 4: The top 1 percent income share and its composition, USA, 1980-2010



Source: Alvaredo et al. (2012)

Moreover, the OECD (2011) calculated the contribution of wages and self-employment income as well as capital income to inequality of disposable income for three different periods: the mid-1980s, mid-1990s and mid-2000s. In this decomposition study, which is based on data from the Luxembourg Income Study, the OECD shows that on average, wages and self-employment income contribute more than 80 percent to income inequality, whereas the contribution of capital income explains on average 10 percent. Though the overall contribution of capital income to overall inequality is relatively low, the contribution has changed considerably. Finland, Germany, Norway and Sweden saw particularly large increases, caused by an uneven distribution of capital income. That is to say, above all, rich households received income from capital investment (OECD 2011). Interestingly, the contribution of capital income to overall income diminished in importance in the USA and the UK. However, the striking results presented by Piketty and Saez (2003, 2006) showed that the top income recipients are nowadays the working rich and entrepreneurs and not the rentiers.

3 Determinants of inequality

In the following, we will provide a brief discussion on determinants of inequality discussed in the literature, starting with the topic of financialization, which is a potential further explanation for the rise in inequality in OECD countries.

3.1 Financialization and neoliberalism

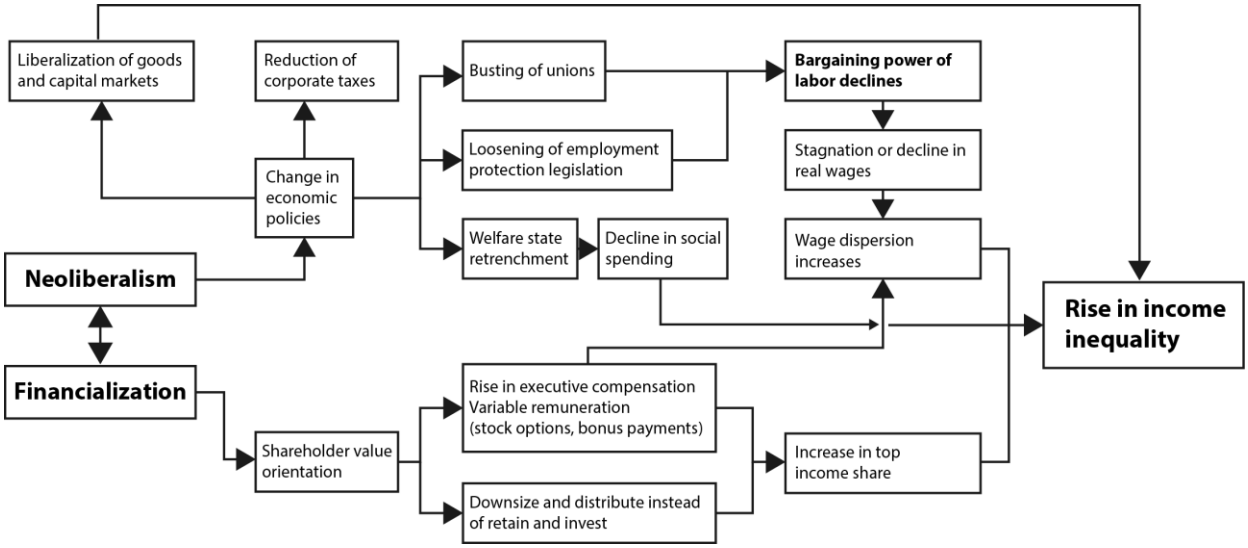
In recent years, the word *financialization* has become a collective term for developments that highlight the increasing relevance of finance not only for society and the economy as a whole but also for phenomena that relate to different actors and concepts for particular entities. Epstein (2005, p. 3) defined financialization as follows: "Financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies." The changes brought forward by the financial sector affect the structure of the economy, economic policy and the behavior of corporations (Palley 2013).

As such,

> "... financialization corresponds to financial neoliberalism which is characterized by domination of the macro economy and economic policy by financial sector interests. According to this definition, financialization is a particular form of neoliberalism. That means neoliberalism is the driving force behind financialization and the latter cannot be understood without an understanding of the former." (Palley 2013, p. 1).

As depicted in Figure 5, we follow Palley and regard neoliberalism and financialization as two complementary concepts leading to and making possible the deregulation and liberalization of goods, capital and labor markets, thereby potentially contributing to the rise in income inequality.

Figure 5: Hypothesized contribution of financialization to income inequality



Source: Author's representation.

Starting in the late 1970s and early 1980s, neoliberalism transformed *economic policies* through the liberalization of goods and capital markets, the reduction of corporate taxes, the busting of unions, loosening of employment protection legislation, an increase in contract workers and precarious employment situations (Brenner and Theodore 2002). Palley (2013, Chapter 2) mentions four channels of the neoliberal policy box that put pressure on workers: abandonment of full employment, globalization, small government and labor market flexibility. Hence, there is no longer any "obstacle to the logic of the pure market" (Bordieu 1998). These measures curtailed the bargaining power of labor, which likely contributed to the rise in income inequality.

3.1.1 Neoliberalism, power resources and the welfare state

Power resource theory addresses the asymmetrical distribution of power between labor and capital in capitalist societies, given that capital is concentrated in the hands of a few. Nevertheless, by organization labor can achieve more egalitarian distribution through two main channels: union organization can influence market income share and support for leftist parties can affect redistribution. Whereas power resource theory was traditionally concerned with the impact of unions and leftist governments on the welfare state, nowadays, the approach is often used to assess the influence on inequality directly (Bradley et al. 2003, Kristal 2010, Volscho and Kelly 2012).

Union density

According to Freeman (1980), unions lower wage dispersion on the one hand by reducing wage dispersion among unionized workers, and on the other hand, by reducing wage dispersion between white-collar and blue-collar workers. In sum, Freeman suggests that unionism leads to less inequality. Empirical studies support the view that high levels of union coverage or union density result in lower levels of earnings inequality (OECD 2011, Card 2001, Card et al. 2004, Western and Rosenfeld 2011). The empirical results on unions' impact on top income shares is mixed. Volscho and Kelly (2012) argue that the decline in union membership undermined workers' bargaining power, which presumably led to a rise in firms' market value and profitability. This, in turn, regularly induces higher stock prices and also management compensation, and hence, top income shares increase. Scheve and Stasavage (2009) also support the view that union density negatively affects top income shares.

Government partisanship

A large literature has analyzed the role of government partisanship on inequality and redistribution.[3] In general, it is assumed that leftist parties employ more redistributive politics, as for instance, greater tax progressivity; more transfer payments as well as more spending on public services, such as education (Scheve and Stasavage 2009). Rueda (2008) points out that government orientation is also an important determinant of wage inequality. Regarding wages on

[3] For studies that incorporate partisanship into their analysis of inequality, compare, for example, Scheve and Stasavage (2009); Bradley et al. (2003); Rueda (2008); Pontusson, Rueda and Way (2002); Kus (2012); Sjöberg (2007) and Volscho and Kelly (2012).

the lower end of the spectrum, leftist parties are more likely to raise minimum wages, social wages or taxes. However, as emphasized by Pontusson and Rueda (2010), left parties have moved to the right, which has mitigated their responsiveness to an increase in inequality. Regarding top income shares, Scheve and Stasavage (2009) analyze the role of political factors measured as wage bargaining centralization and government partisanship and find no support that these factors impact on top income shares in the long run. However, Volscho and Kelly (2012) find that in the USA, the rise of top income shares results from rightward shifts in Congress. This finding is interesting since top income shares are based on data on market income and, as such, highlight the fact that government orientation is not only an important determinant shaping redistribution, but also affects market income directly.

Unemployment rate

As Korpi (1991) argues, unemployment can be regarded as a further expression of distributive conflict between groups in the power resource perspective. Given different interests of socio-economic groups, i.e. employers and employees, unemployment affects both groups differently. Empirical evidence suggests that lower unemployment results in higher wages, since the bargaining power of workers is stronger when unemployment is low (Korpi 2002). This is reminiscent of Kalecki's (1971, p. 141) statement regarding full employment:

> "The social position of the boss would be undermined, and the self-assurance and class-consciousness of the working class would grow. Strikes for wage increases and improvements in conditions of work would create political tension. ... Their class instinct tells them that lasting full employment is unsound from their point of view, and that unemployment is an integral part of the 'normal' capitalist system. "

In the neoliberal era, price stability is prioritized over full employment. As Dumenil and Levy (2002, p. 52) argue:

> "Unemployment will be used, as was traditional in capitalism, as a lever to control labour costs and to discipline wage workers. The stability of prices will ensure the preservation of the wealth of the holders of monetary and financial assets."

Unemployment disproportionately affects unskilled labor, because unskilled workers are easier to replace than their skilled counterparts. Therefore, unemployment particularly undermines the bargaining power of low skilled workers while at the same time changing the wage compression by shifting the composition of the labor force (Pontusson et al. 2002).

Welfare state

Another important strand of literature that is concerned with inequality patterns deals with the role of the welfare state in shaping stratification, and its potential impact on reducing inequality (compare, for example, Kenworthy and Pontusson 2005, Esping-Andersen 1990, Korpi and Palme 1998, Dafermos and Papatheodorou 2013). Though it seems to make a difference whether countries developed a social-democratic or conservative welfare regime which are more likely to combat inequality than countries with liberal welfare states or Southern European countries (Dafermos and Papatheodorou 2013), recent research suggests that government spending per se reduces inequality levels (Niehues 2010, Doerrenberg and Peichl 2012).

3.1.2 Financialization and shareholder value orientation

On the company level, financialization refers to the increasing role of shareholder value orientation as a concept of corporate governance. In general, corporate governance is concerned with the rules and norms that regulate relationships within a firm between different stakeholders as well as the control of company assets (Lane 2003). As such,

> " ... corporate governance is fundamentally a question of in whose interest corporations are run and, as a result, will have important consequences for how the returns from production are distributed among the parties with a stake in the corporation, such as shareholders and labor interests." (Sjöberg 2009)

Therefore, it is not surprising that many authors anticipate that the shift in corporate governance has led to a rise in inequality (Dore 2008, Froud et al. 2001, Lazonick and O'Sullivan 2000). In the past, the Anglo-Saxon and Continental European systems of corporate governance were divided into two broad categories, i.e. the market-based system versus the bank-based system (Amable 2003). However, European countries have seen profound changes in their systems (OECD 2012). That is to say, these countries converged towards the American role model, which maximizes shareholder value (Bauer et al. 2008, Enriques and Volpin 2007). But, what is the empirical evidence regarding the impact of a shareholder value orientation, as one distinctive feature of a market-based system, on distribution?

First, an increase in shareholder value orientation presumably leads to a rise in wage dispersion. Most prominent, is the rise in executive compensation packages that are aligned to stock price movements. In theory, these variable remuneration schemes were supposed to align the interests of managers with those of shareholders. Thereby, managers should be induced to take the

necessary steps to increase the stock market value of the firm (McCall 2004). The rise in executive compensation is a well-documented fact. Empirical evidence shows that the rise is management compensation was largely driven by equity-based pay, i.e. bonus payments and share options (Bebchuk and Grinstein 2005, Hall and Murphy 2003). Gabaix and Landier (2008) find that between 1980 and 2003, CEO pay increased sixfold, and that increase exactly matches the sixfold increase in market capitalization of large companies observed over the same time period. The rise in executive compensation also becomes visible in data on top income shares. As was already shown in section 2, the rise in top income shares is largely driven by a rise in wages and salaries. Bakija et al. (2012) found that for the case of the USA, much of the increase in the top 0.1 percent income share accrues to executives, managers, supervisors and financial professionals that account for 70 percent of the increase between 1979 and 2005. In fact, they find that incomes attributed to those professions mirror stock market prices and, hence, follow that the rise in top income shares can largely be explained by changes in corporate governance and the stock market, but also by entrepreneurship. The view that top income shares are largely driven by changes in corporate governance is also supported by a cross-national panel study carried out by Roine et al. (2009), which states that top income shares are positively correlated with stock market capitalization.

While on the one hand, managers saw their incomes rise on an increasing scale, wages of ordinary workers stagnated or even declined (compare, for example, Dew-Becker and Gordon 2005, Mishel and Sabadish 2013). A growing literature suggests that an increasing focus on shareholder value orientation (or financialization) contributed to a rise in wage dispersion. For the case of the US, Lin and Tomaskovic-Devey (2013) could show that financialization, measured as financial receipts as a share of business receipts, can be held responsible not only for the decline in labor's share of income, but also for the increase in officers share of compensation as well as the rise in earnings dispersion. The results put forward by Fligstein and Shin (2004) and McCall (2004) point in the same direction. Both argue that the rise in shareholder value orientation as a mode of corporate governance increased earnings inequality by, on the one hand, raising the incomes of corporate officers, while on the other hand, making ordinary workers more vulnerable and insecure. For a panel of 15 OECD countries, covering the years between 1979/85 and 2000, Sjöberg (2009) showed that companies' increasing reliance on stock markets, mergers and acquisitions, ownership dispersion, the degree of bank based-finance and the protection of

minority shareholders all influence earnings dispersion. Based on these findings, he concludes that corporate governance and the associated managerial practices are major influences of income distribution. In a similar vein, Darcillion (2012) analyzes the impact of financial and labor market liberalization on wage distribution in a panel of 17 OECD countries covering the years between 1989-2005. He concludes that greater labor market regulation can help to buffer the positive impact that financial liberalization exerts on wage dispersion.

Second, an increasing focus on shareholder value results in a short-term focus on high stock prices. The steps to create the higher stock value include the downsizing of divisions and employees. But measures of restructuring and layoffs were also the outcome of more frequent mergers and acquisitions (Fligstein and Shin 2007). Further, to increase shareholder value, services were outsourced to overseas markets and subcontracting became more frequent (McCall 2004). Moreover, buybacks of own companies shares and the dividend payout ratio increased tremendously (Lazonick 2010, 2011, ECB 2007). Among large US firms, the repurchase of own company stocks was often accompanied by a rise in corporate indebtedness (Davis 2013).

The substitution of debt for equity, which increases the return on equity and hence stock prices even in the presence of stagnant or declining gross profits, as well as an increase in the dividend payout ratio of non-financial corporations disproportionately benefits higher income segments, given that capital income is fairly unevenly distributed between income segments (compare section 2). Empirical evidence suggests that the rise in financial payments leads to a redistribution of income. Studying the development of non-financial corporations' profit rates for the USA and France covering the years 1960 until 1999, Dumenil and Levy (2001) find that profit rates corrected for real interest payments declined over the period under investigation. However, by the mid-1980s, profit rates increased moderately. The high real interest rates in the 1980s transferred large amounts to the financial sector and hence they follow that the financial sector and the wealthy part of the population were the beneficiaries. Dünhaupt (2012) could show for the case of the USA and Germany that redistribution towards rentier income has taken place at the expense of wages and retained earnings of corporations. A study by Hein and Schoder (2011) for the case of the USA and Germany covering the years 1960-2007 also suggests that net interest payments of non-financial corporations related to their net-capital stock have a positive effect on profit shares and hence led to a reduction in the wage share. In a similar vein, Dünhaupt (2013), applying a cross-national dataset on 13 OECD countries covering the years 1986-2007,

finds that net interest and net dividend payments of non-financial corporations, related to their net capital stock, contributed to a decline in labor's share of income.

Up to now, only a few studies analyzed the effect of financialization on overall inequality. In a panel of 20 OECD countries covering the years 1995-2007, Kus (2012) found that all variables related to financialization, i.e. stock value traded as a share of GDP, bank profitability, the value of securities under bank assets and an aggregate financialization index all contribute to the rise in the Gini coefficient of disposable income. Volscho and Kelly (2012) find for the case of the USA that asset bubbles in stock and real estate markets determine top income shares. Davis and Cobb (2010) also argue that the rise in inequality is related to changes in corporate governance. As such, they posit that the recent trends in US inequality are partly caused by "finance-driven corporate restructuring" (ibid. 2010, p. 52).

To sum up, research on financialization suggests that a rise in shareholder value orientation increases inequality. While on the one hand, a change in corporate governance towards shareholder value has to be borne by compensation of employees, on the other hand, asset holders are the beneficiaries of this trend, since they obviously benefit from an increase in the dividend payout ratio and rising stock prices.

3.2 Structural developments

Globalization

The internationalization of goods and capital markets, enabled by the liberalization and deregulation of goods and capital markets in the neoliberal era, is a further aspect potentially increasing inequality. In the most common view, globalization is supposed to have lowered the earnings of less educated workers by putting them in direct competition with low-wage workers around the world. This competition put pressure on wages through international trade in goods and services. Hence, a further strand of research relates changes in wage differentials to the increase in globalization (Feenstra and Hanson 2001). However, as Dew-Becker and Gordon (2008) point out, referring to Wood (1995), with the intensification of trade, economies might restrain from producing goods that compete with imports, and as such, given some time, the impact of trade on wages should be less severe. What is more, trade openness might also lead to increased competition, and therefore reduce monopoly rents, which in general, disproportionately benefit the higher income segment (Agnello and Sousa 2012).

Recently, authors have argued that traditional trade theory may also explain the rise in top income shares. Roine et al. (2009), for example, suggest that in OECD countries, top income recipients are capital owners and, as such, should benefit from trade openness. However, their empirical results, which are based on 16 OECD countries over the twentieth century, do not confirm the suspicion; trade openness seems not to affect top shares, and if, at all, rather depresses it. Volscho and Kelly's (2012) results suggest the opposite. Studying the determinants of top income shares in the USA for the years 1949 until 2008, they find trade openness to have a positive impact. As a potential explanation for this, the authors argue that the rich might benefit disproportionately from trade openness, presuming that workers bargaining power declines due to the propensity of capital rich countries to export capital-intensive and import labor-intensive goods.

Of course, globalization is not solely about trade in goods and services. Other factors, such as foreign direct investment, are equally important, since relocation or even the threat of relocation of production facilities to overseas locations can also depress wages (Bronfenbrenner 2000). In fact, Alderson and Nielsen's (2002) research on 16 OECD countries find investment outflows to be a contributing factor influencing inequality.[4]

Technological change

In regard to wage differentials, the most popular argument is that of skill-biased technological change (Acemoglu 2002; Autor et al. 1998). Here it is argued that the increasing use of computers and other information and communication technologies raised the demand for skilled workers relative to unskilled workers, thereby driving up the wages of skilled workers and depressing those of unskilled workers. There is a lively debate around this topic. Mishel and Gee (2012, p. 42), for example, argue that, at least for the case of the United States:

> "It is hard, however, to find the winners from technical change in the last ten years, as the wages of the bottom 70 per cent of college graduates have been flat or in decline. That would leave just 30 per cent of college graduates (6.6 per cent of the workforce) and the 11 per cent of workers with advanced degrees as the winners of technical change. It also seems unlikely that technical change has generated the upward trajectory of the top 1 per cent of wage earners."

[4] Certainly, globalization is not only a structural development but also the outcome of the liberalization of goods and capital markets. However, for pragmatic reasons, we place the discussion under structural developments.

Davis and Cobb (2010) emphasize that this explanation is also at odds with cross-national comparisons, because inequality in countries like France, Japan or the Nordic states are relatively low, even though they are technically advanced. Critique comes also from Card and DiNardo (2002). They highlight that in the US, wage inequality stabilized in the 1990s, although there was still progress in computer technology. Moreover, the skill-biased technological change argument is not capable of explaining the closing of the gender gap, the stability of the racial wage gap, as well as the wage gaps between educated young and old workers.

Economic development

There is a long tradition in theoretical and empirical work to analyze the relationship between economic growth and inequality. Kuznets (1955) suggested that in early stages of development, inequality worsens, but improves at some later point in time. Thus Kuznets' famous inverted U-curve infers that at a certain stage of economic development, economic growth contributes to more equality. Recently, it was suggested that in advanced industrial societies, inequality increases again, thereby producing rather a N-shaped relationship (Alderson and Nielsen 2002). Almost all empirical studies include GDP per capita as a causal variable; however, the empirical results are mixed at best (Gustafsson and Johansson 1999). As Bradley et al. (2003) point out; it is not that obvious why rising income as such should contribute to more inequality.

Female participation rate

Another discussion relates to the increasing role of females in the labor force. On the one hand, it is argued that females inflate the lower end of the wage distribution spectrum, due to the continuing gender wage gap and due to their presumably lower level of skills. On the other hand, an increase in the female participation rate might raise the overall household income (Alderson and Nielsen 2002).

Dependency Ratio

Further, increasing inequality might also be affected by demographic factors given income differences between working-age and retired persons (Brady 2006). The risk of facing income levels below the poverty line is much higher for the elderly compared to the working-age population (EC 2013). Hence, an increase in the old-dependency ratio automatically translates into higher inequality.

4 Econometric Analysis

4.1 Choice of variables

To get a comprehensive picture of the distributive consequences of financialization and the changes in corporate governance, three dependent variables are chosen: the Gini coefficient of market and disposable income and the top 1 percent income share.

In the past, cross-national research was constrained by the availability of comparable datasets. As is well known, data on inequality is based on household surveys that are hardly comparable among countries, since definitions and units differ. Recently, Solt (2009) has compiled a comprehensive dataset, which is based on data from the World Income Inequality Database and the Luxembourg Income Study. As such, the Standardized World Income Inequality Database (SWIID) can be considered as the most reliable data source for cross-country comparisons, though some caveats remain (for more information, compare Solt 2009). Nevertheless, we take both measures of inequality, i.e. the pre-tax and transfer Gini coefficient of market income, or gross Gini, and the post-tax and transfer Gini coefficient, or net Gini, from the SWIID. One obvious drawback is the fact that Gini coefficients are based on household surveys, and these surveys often suffer from some bias, which means that the levels of inequality are driven by changes around the median (Volscho and Kelly 2012), and the very high-income segments are not very well represented by those surveys. Therefore, we also apply the top 1 percent income share taken from Solt (2009), which is based on data taken from the World Top Income Database (WTID) that relies on tax data (for information and limitations of the dataset, compare Piketty and Saez 2003). While Solt (2009) includes all available data from the WTID without modification, he further estimates missing years by applying the SWIID's custom multiple-imputation algorithm[5].

Independent variables

To capture an increase in *shareholder value orientation*, we apply two variables. First, we use stock market capitalization, i.e. the value of listed shares as a share of GDP. We expect a positive effect on inequality. Second, we apply net dividend payments of nonfinancial corporations related to their value added (for a similar approximation, compare, for example, Stockhammer

[5] For more information on the imputation algorithm, compare Solt (2009).

2004, Dünhaupt 2013). Since dividend income disproportionately benefits richer households, we expect a positive impact on both Gini coefficients and the top income share.[6]

For *power resources and the welfare state,* we use four variables. The first is *union density*, which relates active wage and salary earners that are members of a union to wage and salary earners in employment. We expect that a higher share of union members exert a negative influence on inequality measured by the Gini coefficient and the top income share. Second, we control for *left cabinet strength,* which is measured as left governing party seats as a percent of all legislative seats. Assuming that left parties pursue policies that benefit the more vulnerable part of the labor force and population, we expect a stronger leftist presence to have a negative effect on inequality, both before and after taxes and transfer payments, and a negative impact on top income shares. As a third variable, we use the *unemployment rate,* which is supposed to have a positive impact on inequality. Regarding its influence on top income shares, the direction of influence is not clear-cut. On the one hand, it could be argued that a rise in unemployment lowers the bargaining power of workers and thereby potentially increases the profitability of firms and hence exerts a positive impact on top income shares. On the other hand, higher unemployment can also indicate a macroeconomic downturn and thereby negatively affect the top. Fourth, we apply *social spending,* which is defined as total public social expenditures (cash benefits) as a share of GDP to measure the role of the welfare state and its redistributive policies. As such, we only estimate its effect on the Gini coefficient of disposable income. Obviously, we expect it to have a negative influence on inequality.

As discussed in the previous section, *globalization* is a usual suspect for the increase in inequality. To assess its effect, we use two variables, i.e. *FDI outflows* as a share of GDP and *trade openness,* which is defined as exports plus imports as a share of GDP. Both variables are expected to increase inequality, because, as previous research has shown, they both increase wage dispersion.

To control for *technological change*, we follow the OECD (2011) and use the ratio of business expenditure on research and development to GDP, which should contribute to a rise in inequality.

[6] Certainly, stock-buybacks and/ or debt-to-equity ratios of non-financial corporations are further indicators of shareholder value orientation (Davis 2013). Unfortunately, both indicators are not available for a sufficiently long time period to include them in the estimation.

We further apply the logarithm of *GDP per capita*, which proxies the level of development. According to the Kuznets hypothesis and given the stage of development of the countries included in this study, the impact should be negative. However, as previously shown, recent research has argued that after a certain stage, inequality increases again. Hence, the direction of influence is not obvious. Further, we apply the *female participation rate,* which relates the female labor force to the female working age population. As discussed in section 3, the direction is not clear-cut. The *old age dependency ratio* relates the size of the population aged 65 plus to the working age population. A larger fraction of retired persons should positively affect inequality, given the fact that pensions are rather small. Table 2 presents the summary statistics for all variables.

Table 2: Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Gini coefficient of market income	403	40.39384	5.254261	26.82009	48.98495
Gini coefficient of disposable income	403	27.37573	4.365613	19.21561	37.8
Top 1 percent income share	403	7.879404	2.915452	3.49	18.33
Stock market capitalization	399	59.14329	41.16517	4.224716	246.0504
Net dividend payments of non-financial corporations (% of value added)	334	7.44728	5.482982	-1.93464	22.8036
Union density	394	42.18865	22.92548	7.617148	87.42719
Left government seats	351	19.24929	20.74646	0	65
Unemployment rate	391	6.834527	2.697864	1.7	17.9
Social spending (% GDP)	403	12.93601	4.015732	0	21.9
FDI outflows (% of GDP)	403	3.189931	5.252476	-4.23460	48.05738
Trade openness	403	.6456755	.3380922	.1601212	1.705261
Research and development expenditure (% of GDP)	355	1.428975	.6356668	.2256538	3.199394
GDP per capita	403	26407.13	13368.11	7280.602	95189.87
Female participation rate	390	63.75151	10.47545	36.13885	82.46143
Old age dependency ratio	403	24.88428	4.040899	15.08774	38.97783

4.2 Estimation

The research at hand is carried out for a sample of 13 OECD countries (Australia, Belgium, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Sweden, the UK and the USA) in an unbalanced panel of annual data covering the years between 1980 and 2010.[7]

To analyze the distributional effects of shareholder value orientation, power resources and the welfare state and structural developments, we estimate the determinants of inequality in the following form:

$$Inequality_{it} = \alpha + \beta(Shareholder\ Value_{it}) + \lambda(Power\ Resources_{it}) + \theta(Structural\ Developments_{it}) + \varepsilon_{it}$$

where i and t refer to country and year, respectively.

- Shareholder value orientation is measured by two indicators; i.e. stock market capitalization and net dividend payments as a share of value added of non-financial corporations.
- Power resources include indicators for union density, left cabinet strength, the unemployment rate and social spending.
- Trade openness and FDI outflows, the logarithm of GDP per capita, an indicator for technological progress, female participation rate and the dependency ratio measure structural developments

and ε_{it} the random disturbance. All explanatory variables except for the dependency ratio are lagged one year. This is done for two reasons: first of all, to address potential endogeneity and second, to capture time lags in the effect of independent variables on income distribution.

The time-series cross-sectional panel structure renders estimation by ordinary least squares inappropriate, given its strong assumption of independence of errors across observations. Though there are several strategies to handle correlated errors in time-series cross-sectional data sets, most empirical studies on income inequality cope with this problem by estimating a random effects model (RE) (Agnello and Sousa 2012, Alderson and Nielson 2002, Brady and Leicht 2008, Bradley et al. 2003, Gustafsson and Johansson 1999). RE models provide the advantage that they can estimate both variation within countries as well as between countries, whereas fixed

[7] The selection of countries and years is solely determined by data availability.

effect models (FE) can only estimate variation within nations (Brady and Leicht 2008). Though RE models are in general considered more efficient than FE models, they are rather strongly based on the assumption that unobserved effects are uncorrelated with the explanatory variables, which is likely to be violated (Wilson and Butler 2007).

In contrast, (FE) models provide the advantage of capturing unobserved effects and hence reduce omitted variable bias. Since the countries included in our sample have very different historical, political and economic backgrounds, including country fixed effects, enables us to control for country specific characteristics. On the other hand, however, including country dummies has some severe drawbacks, as outlined by Plümper et al. (2005) and Beck (2001). Especially when including institutional variables that show only little variation in the period under consideration, the inclusion of country dummies might absorb cross-national differences that were explicitly modeled. Further, the inclusion of country fixed effects becomes problematic if level effects matter.

To relate our research to the literature, we first estimate a RE model and as a test of robustness, we further estimate a FE model. In the RE models, we use robust clustered errors to control for autocorrelation and heteroscedasticity, and include time dummies to take account of time specific effects. FE models are estimated by choosing a combination of panel-corrected standard errors (PCSE) developed by Beck and Katz (1995) and a Prais-Winston transformation. Since our dataset includes institutional variables that both show only little variation and exhibit level effects that matter (for example left government seats or union density), we run estimations with and without country dummies.

4.3 Results

Table 3 provides the results of the regressions for the gross and net Gini coefficient as the measure of income inequality. Equation 1 and 2 present the results using the RE model. As a test of robustness, columns 3 to 8 display the results for the FE model.

Our findings suggest that financialization – measured by stock market capitalization – has a positive and statistically significant effect on both Gini coefficients. However, in the FE model, the result can only be validated on the net Gini coefficient when controlling only for time effects. Regarding the net dividend payments of non-financial corporations, we find that a higher dividend payout ratio increases the gross Gini coefficient in the RE model, and both Gini

coefficients when applying the FE model. This result, however, is less surprising given the fact that above all, rich households disproportionately benefit from capital income, and as such, is rather a mechanical outcome. The coefficient for market inequality is relatively high (ranging between .251 and .127) compared to the one for disposable income (.091 and .028). This finding suggests that part of the inequality generated through capital income could successfully be reduced by tax policy.

The results for power resources and the welfare state are as expected. Union density has the hypothesized negative effect on both the Gini coefficient of market and disposable income. Though from a theoretical point of view, it is suggested that union strength reduces pre-tax and transfer income inequality (Bradley et al. 2003), we find that a higher share of unionization helps to reduce both, before and after tax, and transfer income inequality. For left government seats, we find no significant effect. As expected, the unemployment rate shows a positive influence on inequality for both coefficients. Social spending shows a statistically significant and negative effect on inequality of disposable income. This finding supports the commonly accepted view that higher social spending reduces income inequality.

Regarding globalization, we find a negative and statistically significant effect on the gross Gini coefficient in the RE model. However, this result is not robust in any of the FE models. As Epstein (2000) and Crotty et al. (1998) argue, the impact of FDI measured by actual stocks and flows might underestimate its real impact on inequality, because the threat effect of moving production plans changes the bargaining power between capital and labor and often translates into lower wages. Therefore, even in the absence of large flows, it is possible that FDI impacts on inequality by altering the bargaining power of labor. To our surprise, we find that an increase in trade openness has a negative impact on the net Gini coefficient. However, this result is consistent with other findings in the literature (compare Alemán 2011, Agnello and Sousa 2012). For example, Agnello and Sousa (2012) also find a negative effect of trade openness on inequality and argue that this result supports the view that due to increased competition, monopoly rents might be reduced, which in general disproportionately benefits the higher income segment. In regard to the role of technological change, measured as business expenditures as a share of GDP, we find a negative impact on gross income inequality in the RE model, whereas the FE model suggests the opposite for both measures of income inequality. Moreover, we find a negative effect of GDP growth per capita on both Gini coefficients. This finding supports the

Kuznets hypotheses and, further, suggests that a favorable macroeconomic environment has an equalizing effect. The female participation rate has a positive impact on the Gini coefficient of market income. The positive impact on market income inequality might be due to the still persistent wage gap between women and men. As such, this finding is in line with the literature on earnings inequality (compare, for example, Sjöberg 2009). The dependency ratio has a positive and statistically significant effect on the Gini coefficient of market and disposable income. This result supports the view that a higher share of retired persons leads to more inequality, given relatively small pensions.

To further assess if our results are only temporary or endure over the medium term, we repeat the previous exercise using five-year averaged data. The results are reported in Table 4. We find that our previous results are remarkably constant and hence seem to persist over the medium term. However, in contrast to the previous estimations, we find that in the medium term, stock market capitalization exerts a positive and statistically significant influence on inequality in almost all specifications. This result seems to confirm the findings by Sjöberg (2009), who found a positive effect of the role of the stock market on earnings inequality. Hence, it could be argued that those positive effects on earnings inequality translate only into positive effects on overall inequality in the medium term. Regarding the dividend payout ratio of non-financial corporations, we only find a positive effect in the RE model. The findings that relate to the bargaining power of labor seem to be very robust. Both union density and left government seats have a negative and significant effect in the FE models. The unemployment rate shows the expected statistically significant positive effect and social spending the expected statistically significant negative effect in all specifications. In the RE model, we find a statistically negative effect of FDI on the gross Gini coefficient and a positive effect on the net Gini coefficient, though the result is not robust in the FE model. In regard to the female participation rate, we find a positive effect on the gross Gini coefficient and a negative effect on the net Gini coefficient.

As mentioned previously, inequality measured by the Gini coefficient presumably underreports the very rich. Therefore, in a next step, we repeat our previous exercise using the top 1 percent income share as the dependent variable taken from Solt (2009) and which is based on the World Top Income Database.

Table 3: Estimation results; dependent variables gross and net gini coefficient

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Random effects		**Fixed effects**					
	gross	net	gross				net	
Stock market capitalization $_{(t-1)}$	.033*	.038**	-.001	.008	.005	.003	.016***	.002
	[.017]	[.017]	[.005]	[.007]	[.006]	[.003]	[.005]	[.002]
Net dividend payments /value added $_{(t-1)}$	.253*	.079	.011	.076	.127**	.001	.091**	.028**
	[.144]	[.095]	[.040]	[.051]	[.063]	[.030]	[.038]	[.027]
Union density $_{(t-1)}$	-.072**	-.050*	-.004	-.032**	-.009	.004	-.098***	-.029
	[.036]	[.029]	[.053]	[.017]	[.058]	[.044]	[.013]	[.040]
Left government seats $_{(t-1)}$	.025	.003	.000	.008	.005	.000	.002	-.001
	[.019]	[.019]	[.005]	[.007]	[.007]	[.005]	[.005]	[.004]
Unemployment rate $_{(t-1)}$	.657*	.389**	.013	.280***	.350***	-.028	.154***	.046***
	[.340]	[.192]	[.078]	[.089]	[.076]	[.059]	[.059]	[.045]
Social spending $_{(t-1)}$		-.539***				-.078*	-.185***	-.034***
		[.157]				[.044]	[.052]	[.038]
FDI outflows $_{(t-1)}$	-.080**	.054	-.027	-.024	-.034	.009	.008	.004
	[.033]	[.056]	[.031]	[.031]	[.037]	[.012]	[.013]	[.010]
Trade openness $_{(t-1)}$	-.026	-.051**	-.032	-.040**	-.025	-.005	-.038***	.623
	[.031]	[.023]	[.027]	[.016]	[.028]	[.017]	[.009]	[.995]
Technological change $_{(t-1)}$	-2.26*	-.725	-.409	.457	1.72**	1.04**	1.08***	1.25**
	[1.34]	[1.13]	[.565]	[.483]	[.669]	[.478]	[.331]	[.365]
GDP per capita (log) $_{(t-1)}$	-2.49***	-3.63***	-2.30***	-2.82***	-.011	-.902**	-1.71***	-.149
	[.799]	[.936]	[.471]	[.653]	[.607]	[.364]	[.502]	[.226]
Female participation rate $_{(t-1)}$	.388***	-.101	.075	.245***	.352***	-.002	-.032	.047***
	[.125]	[.078]	[.067]	[.049]	[.064]	[.045]	[.030]	[.033]
Old age dependency ratio $_{(t-1)}$	.117**	.025	.447***	.130***	.270***	.132**	-.034	.113***
	[.199]	[.170]	[.083]	[.101]	[.094]	[.061]	[.070]	[.055]
Observations	232	232	232	232	232	232	232	232
Country fixed effects	No	No	Yes	No	Yes	Yes	No	Yes
Year fixed effects	Yes	Yes	Yes	Yes	No	Yes	Yes	No
R^2			.98	.97	.97	.98	.97	.97
within	.59	.19						
between	.77	.86						
overall	.69	.78						

legend: * p<.1; ** p<.05; *** p<.01; Panel corrected standard errors in parenthesis. Constant included in all regressions, but not reported

Table 4: Estimation results; dependent variable gross and net Gini coefficient; 5-Year Averages

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Random effects		**Fixed effects**					
	gross	net	gross			net		
Stock market capitalization	.033* [.019]	.051* [.018]	.018* [.009]	.043*** [.010]	.002 [.017]	.025* [.014]	.030*** [.008]	.010 [.014]
Net dividend payments /value added	.343* [.187]	.012* [.092]	-.097 [.059]	.054 [.137]	.203 [.144]	-.055 [.055]	-.012 [.052]	-.013 [.090]
Union density	-.051 [.041]	-.075 [.036]	-.136** [.056]	-.226*** [.075]	-.036 [.025]	-.046 [.087]	-.125*** [.044]	-.087*** [.023]
Left government seats	-.000 [.037]	-.005 [.037]	-.030*** [.010]	-.028* [.015]	-.007 [.020]	-.016 [.014]	-.025*** [.009]	-.009 [.005]
Unemployment rate	.789* [.431]	.632* [.334]	.250*** [.086]	.590*** [.104]	.566*** [.181]	.139* [.082]	.096 [.071]	.357*** [.125]
Social spending		-.396* [.170]				-.260 [.199]	.010 [.063]	-.304* [.173]
FDI outflows	-.253** [.122]	.077** [.129]	.098 [.155]	.133 [.146]	-.079 [.180]	.034 [.082]	.044 [.053]	.012 [.050]
Trade openness	-.001 [.043]	-.053 [.025]	-.113*** [.025]	-.116*** [.031]	-.038 [.024]	-.071* [.004]	-.021 [.002]	-.039** [.001]
Technological change	-.915 [1.63]	-1.69. [.975]	1.42* [.759]	2.81 [.812]	-.415 [.783]	-.171 [.953]	-.105 [.788]	-.645 [.579]
GDP per capita (log)	-2.85*** [1.11]	-2.98*** [1.20]	-2.42*** [.755]	.030 [.828]	-2.35 [1.59]	-1.73 [.349]	.006 [.336]	-1.97* [1.118]
Female participation rate	.414*** [.137]	-.042*** [.098]	.142** [.063]	.249*** [.060]	.327*** [.076]	-.101* [.052]	-.061 [.042]	-.047 [.055]
Old age dependency ratio	.045*** [.260]	.165*** [.156]	.329*** [.040]	.237*** [.060]	.052 [.129]	.273*** [.056]	.218*** [.054]	.118 [.101]
Observations	60	60	60	60	60	60	60	60
Country fixed effects			Yes	Yes	No	Yes	Yes	No
Year fixed effects	Yes	Yes	Yes	No	Yes	Yes	No	Yes
R^2			.98	.97	.85	.97	.96	.91
within	.668	.668						
between	.739	.739						
overall	.678	.678						

legend: * p<.1; ** p<.05; *** p<.01; Panel corrected standard errors in parenthesis. Constant included in all regressions, but not reported

Table 5 displays the results with the top 1 percent income share as the dependent variable – again with one year lagged explanatory variables (columns 1 to 4) and the medium term effect using data averaged over five-year intervals (columns 6 to 8). Column 1 and 5 present the results for the RE model, columns 2 to 4 and 5 to 8 for the FE. Stock market capitalization shows a positive and significant impact when controlling for country effects. This result is in line with the findings of Roine et al. (2009). As predicted, dividend payments have a positive and statistically significant effect on the top 1 percent income share. These results confirm our previous findings, i.e. inequality is fuelled by dividend payments that disproportionately benefit the richer households or individuals. The findings in relation to the variables on power resources are also partly consistent with our previous results. Union density has a negative impact on the top income share. These results are also in line with the findings of Volscho and Kelly (2012) and Scheve and Stasavage (2009) which both find that more organized labor markets, in terms of higher union density, are characterized by lower inequality and have a negative impact on the income share of the rich. Left government seats show no significant impact. The unemployment rate shows only a negative impact in one of the specifications; i.e. in the fixed effects model with only year effects. FDI outflows and technological change show no significant effect. Both trade openness and GDP per capita show a negative influence on top income shares. The result on trade openness matches those by Roine et al. (2009), although they found that the growth in GDP per capita contributed to the rise in top income shares. In this regard, our results are in line with those by Volscho and Kelly (2012), who also found that GDP per capita negatively impacts on top shares.

The recent (empirical) literature (compare Atkinson et al. 2011, Roine et al. 2009, Volscho and Kelly 2012) discusses further potential determinants of top income shares, such as top marginal tax rates. We also tested the potential impact of top marginal tax rates (data provided by the OECD) but could only find a negative and statistically significant effect in the RE model. According to Volscho and Kelly (2012), top marginal tax rates even have a negative impact on top income concentration before taxes and transfer payments, because these higher taxes might be channeled into governmental programs, which benefit lower and middle income households.

Table 5: Dependent variable: Top 1 percent income share

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Random effects	**Fixed effects**			**Random effects**	**Fixed effects**		
						5-year averages		
Stock market capitalization	.019	.004	.015***	.009***	.015	.014	.005	.023***
	[.018]	[.003]	[.005]	[.003]	[.018]	[.007]	[.007]	[.007]
Net dividend payments/value added	.149*	.117**	.168***	.288***	.096	.059*	.085	.292***
	[.076]	[.044]	[.038]	[.053]	[.096]	[.082]	[.062]	[.073]
Union density	-.049***	.006	-.051***	-.124***	-.062***	-.040	-.057***	-.127***
	[.018]	[.025]	[.007]	[.030]	[.021]	[.045]	[.011]	[.046]
Left government seats	-.014	-.005	-.007	-.005	-.002	-.011	-.013	-.012
	[.013]	[.004]	[.006]	[.005]	[.021]	[.010]	[.009]	[.010]
Unemployment rate	-.086	-.047	-.111*	.023	.061	.010	.030	-.016
	[.136]	[.045]	[.064]	[.036]	[.175]	[.069]	[.087]	[.064]
FDI outflows	.004	.005	-.002	-.007	.043	-.066	.012	-.065
	[.030]	[.009]	[.009]	[.007]	[.049]	[.058]	[.030]	[.044]
Trade openness	-.019	-.031**	-.017***	-.009	-.029	-.076***	-.030***	-.022
	[.017]	[.017]	[.006]	[.009]	[.019]	[.031]	[.016]	[.021]
GDP per capita (log)	-.706	-1.52**	-1.42**	-.271	-.933	-2.08	-1.80*	-.239
	[.836]	[.636]	[.723]	[.464]	[.797]	[1.02]	[1.00]	[.329]
Technological change	-.154	-.221	-.034	.502	.473	-.169	.410	.255
	[.025]	[.316]	[.301]	[.404]	[1.05]	[.313]	[.374]	[.283]
Top marginal tax rate	-.055***	-.002	-.018*	-.012	-.041*	-.000	-.003	-.019
	[.023]	[.007]	[.009]	[.010]	[.023]	[.009]	[.011]	[.012]
Observations	226	226	226	226	60	60	60	60
Country fixed effects		Yes	No	Yes		Yes	No	No
Year fixes effects	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
R^2		.94	.89	.91		.94	.63	.92
within	0.449				0.563			
between	0.754				0.754			
overall	0.695				0.738			

Legend: * p<.1; ** p<.05; *** p<.01; Panel corrected standard errors in parenthesis. Constant included in all observations, but not reported.

5 Conclusion

With the beginning of the 1980s, inequality started to increase in most OECD countries. In this paper we have argued that the rise in financialization and changes in corporate governance contribute not only to the rise in wage inequality, as was already shown in the literature, but also to the rise in inequality as a whole. This is only too obvious, given the fact that not only did salaries for corporate officers increase tremendously in the past years while wages for ordinary workers stagnated, but also some households, presumably the rich households, further benefited from the trend towards shareholder value, because these households are the ones that receive income from capital. Therefore, we have argued that taken together, financialization and the rise of the shareholder value movement are contributing factors to the rise in income inequality. Further, we argued that financialization and neoliberalism are two complementary concepts and included variables that relate to power resources and the welfare state and further variables measuring structural changes related to globalization, economic development, technological change, female participation rate and the dependency ratio. We investigated the impact of these variables on inequality, thereby distinguishing between pre-tax and transfer inequality and post-tax and transfer inequality, and the top income share. Our results suggest that changes in corporate governance proxied by stock market capitalization and the dividend payout ratio of non-financial corporations, the unemployment rate, technological change and the old age dependency ratio contribute to the increase in inequality, while union density, (left government seats), trade openness, economic growth and social spending promote a more equal distribution of income. In regard to the top income share, our results suggest that stock market capitalization and the dividend payout ratio contribute to the rise in top shares, whereas union density, trade openness, economic growth and top marginal tax rates reduce top shares. We are aware of the fact that the determinants of top income shares have very specific reasons that are deeply rooted in the historical, political and economic profile of each country. As such, estimating the determinants of the top income share in this paper is rather a strategy to double-check the results that emanate from the estimations on Gini coefficients and correct for a potential bias towards middle income households, than to presume to find the explanation for the rise in top income shares.

Our results have several important implications. Rising inequality is not just an inevitable outcome of structural developments like technological change or demographical developments.

Rather, inequality is fuelled by neoliberal policies that benefit high-income segments, as for example, the focus on price stability rather than full employment. Moreover, we found that variables related to financialization also help to explain the rise in income inequality. However, these are also not natural developments, but were fostered by government policies that deregulated financial markets, gave rise to institutional investors and thereby increased the pressure on workers' wages. Hence, the findings of this study lend support to the claim that constraining and downsizing processes of financialization can curtail rising inequality. Moreover, given the negative impact of unionization, left government seats and social policy on inequality, labor, through organization, can still impact redistribution.

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