

## **Financialisation and Income Inequality in OECD Nations: 1995-2007**

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*Abstract:* This paper attempts to examine the link between financialisation and income inequality in advanced countries from a comparative perspective using data from 20 OECD countries over a period of 13 years (1995-2007). The initial regression results show an overall strong correlation between several of the financialisation indicators and income inequality net of conventional explanations including economic growth rate, unemployment, globalisation, left party power, social spending, union density, female participation in the labour market, and wage bargaining centralisation. The results also show that although financialisation has a positive association with income inequality in nations with strong as well as weak unions, the association is stronger in the latter.

### I INTRODUCTION

**T**his article investigates the relationship between financialisation and income distribution in OECD countries. Income distribution has become increasingly unequal in most OECD nations since the early 1980s. Although various scholars and observers have been promulgating the notion that high and rising levels of income inequality remained an American phenomenon, and that other OECD countries have been able to hold inequality at bay, this is not the case (Pontusson 2005, p. 32). As various forms of comparative data have repeatedly shown, rising income inequality is indeed a more pervasive phenomenon than it is often assumed. While there is a great deal of variation

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in the levels of inequality across nations, what we have seen is a common trend of increasing inequality across the spectrum.

The existing literature offers a set of explanations for the cross-national and time-series variations in income inequality. Some analysts argue that it is the market conditions such as economic growth, unemployment, female participation in the labour market, and openness to trade flows that drive levels of inequality. Others emphasise the significance of political and institutional factors – the power of unions, the nature of wage bargaining, government partisanship, or the generosity of the welfare state in determining the levels and patterns of income distribution. Recently, it has been suggested that financialisation – that is, the growing importance of financial activities and transactions as part of overall economic activity, is one of the major factors that contributed to income inequality. There have been few attempts to analyse this relationship empirically, however (see Tomaskovic-Devey and Lin, 2011; Kremp, 2012). Indeed, a comparative analysis of the financialisation-inequality relationship has not been conducted to this date, largely because cross-national and time-series data on various aspects of financialisation and inequality have not been readily available until very recently. This paper is one of the first systematic attempts to examine this relationship using panel data.

In this article we analyse data from 20 OECD countries over a period of 13 years (1995-2007) to find out: (1) if financialisation has had any bearing on income inequality, and (2) whether the observed effect is mediated by the political/institutional context.

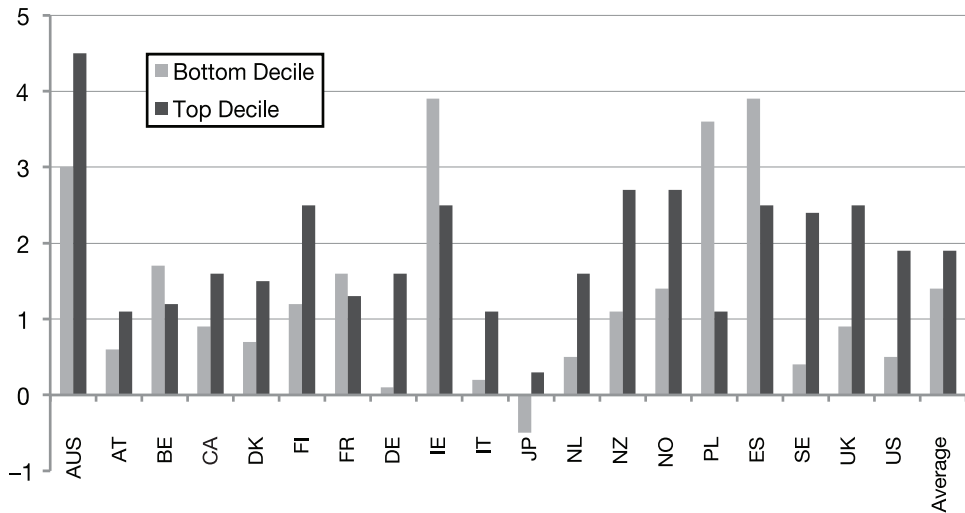
Our analysis shows that there is a strong correlation overall between several of the financialisation indicators and income inequality net of conventional explanations including the economic growth rate, unemployment, globalisation, left party power, social spending, union density, female participation in the labour market, and wage bargaining centralisation. The results also show that while financialisation has a positive association with income inequality in nations with strong as well as weak unions, the association is stronger in the latter.

The paper is organised as follows. The Section II provides an overview of inequality trends in OECD countries, and discusses the existing explanations of these trends. Section III unpacks the phenomenon of financialisation, and outlines the theoretical arguments that have recently been made regarding the relationship between financialisation and increasing income inequality. Finally, Section IV develops a statistical model to quantify the relationship between income inequality and financialisation, and discusses the findings of the study.

II INEQUALITY IN ADVANCED NATIONS

One of the most common ways of measuring income disparity is by comparing the top and bottom percentile groups' shares of total income. The data available from the OECD shows that, although real disposable household incomes in OECD countries increased by an average 1.7 per cent per year over the two decades prior to the onset of the global economic crisis, in a large majority of them the household incomes of the richest 10 per cent grew faster than those of the poorest 10 per cent (OECD, 2011). This trend has not remained exclusive to liberal market economies. As Figure 1 shows, in traditionally low-inequality social democratic countries, also, income inequality grew substantially.

Figure 1: *Average Annual Percentage Change in Disposable Household Income: Bottom Versus Top Decile (Mid-1980s–Late 2000s)*



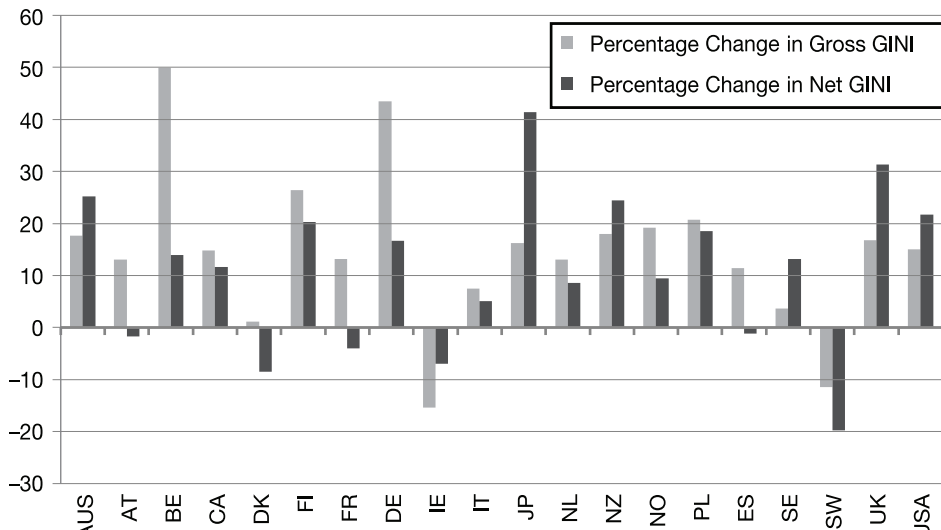
Source: OECD (2011).

A recent comparative data set (Solt, 2011) that provides GINI<sup>1</sup> indices on an annual basis provides a similar picture of inequality trends in OECD nations. As seen in Figure 2, the distribution of market incomes has grown significantly more unequal even in social democratic countries such as

<sup>1</sup> GINI index ranges between 0 and 100, where 0 means perfect equality (everyone has the same income) and 100 means perfect inequality (all income goes to one individual only).

Germany, Norway, Finland, Sweden, and Denmark. Nevertheless, these countries have been able to offset the widening gap in market income to a large extent thanks to redistributive structures and policies, as net GINI coefficients show. This is hardly the case for liberal market economies, such as the US, the UK, Australia, and Canada, where the percentage increase in net GINI over the period of 1980-2007 seems to be higher than the percentage increase in gross GINI, which is in part a result of shrinking redistributive efforts on the part of these nations.

Figure 2: *Change in Income Inequality: Gross Versus Net GINI (1980-2007)*



Source: Solt (2011).

The literature offers a set of explanations for the cross-national and over-time variations in income inequality. Some scholars emphasise the role of market conditions – of factors such as the level of unemployment, female participation in the labour market, and trade with less developed countries. To be more specific, rate of unemployment is expected to be positively associated with inequality. Unemployment undermines the earnings and the bargaining position within the labour market of low-skilled and low-paid workers who remain more readily substitutable than their high-skilled counterparts (Pontusson, Rueda and Way, 2002). Similarly, female participation in the labour market is expected to be positively associated with inequality. This is because until quite recently, women in the labour force have remained less educated and less experienced than their male counterparts,

and their widespread employment simply implied a relatively high degree of less skilled, low-paid workers with weak bargaining position in the labour market (Pontusson, *et al.*, 2002).

Globalisation has also been debated as a major cause of inequality. According to the traditional international trade theory, increased trade integration remains associated with higher relative wages for skilled workers in advanced countries, whereas it places deflationary pressures on unskilled labour, contributing to an increase in the wage gap (OECD, 2011; Kremer and Maskin, 2006). As a recent OECD report (2011) put it clearly, however, the evidence as to the impact of globalisation on inequality remains mixed at best (see also Rudra, 2004; Milanovic and Squire, 2005; OECD, 2011). Study findings seem to vary depending on the nations included in the analysis, and the time period being considered.

Inequality is not only driven by markets alone, to be sure. Politics and institutions matter also. Along these lines, various scholars have emphasised the role of government partisanship, unions, wage-bargaining structures, and the welfare state in determining the degree and nature of inequality that prevail in advanced societies.

Governments have a number of policy tools available to them, such as minimum-wage and equal-pay legislation, income policies, tax policies, and social spending, which allow them to directly influence the wage distribution, and the overall nature and degree of income inequality within their nations (Pontusson *et al.*, 2002). Within the existing literature it is generally accepted that left parties tend to favour the use of these tools in ways that produce greater decreases in income inequality. Increasing unemployment compensation and minimum wage, or instituting more progressive taxation and social welfare policies are examples of such practices that left parties tend to employ. As such, an inverse relationship is expected to exist between the strength of left parties and levels of income inequality, with greater left party strength being associated with lower levels of income inequality.

Another political-institutional factor that is expected to be connected to levels of income inequality is the power of labour unions.<sup>2</sup> Scholars argue that as the density and the power of labour unions increase, the level of income inequality decreases. The union effect might be due to two mechanisms. One, unions compress wages among union members, and two by negotiating wage increases for their blue collar members, they may lower the differential between the blue and white collar workers (Freeman, 1980; Freeman and

<sup>2</sup> For a detailed discussion on the link between unions and inequality see Checchi *et al.* (2007).

Medoff, 1984; Card, 1998, 2001; Card, Lemieux and Riddell, 2004; Metcalf *et al.*, 2001).<sup>3</sup>

Finally, a nation's system of wage bargaining can have a clear impact on patterns of income distribution, also. By bringing more firms or sectors into a single bargaining process, a centralised wage bargaining structure can serve to reduce the inter-firm or inter-sectoral wage differentials, and drive down levels of market-based inequality (Pontusson *et al.*, 2002).

All of these economic and political factors mentioned here have been extensively examined in the literature on inequality. In this paper, we consider the possible impact of another trend, which has had significant impact on political and market processes during the past two decades or so – that of financialisation.

### III FINANCIALISATION AND INCOME INEQUALITY

We seek to understand if financialisation has had any part in driving income inequality, net of all these other factors that have been shown to be associated with it, in one way or another. What is the nature and extent of this effect, if any? Does it depend on the political and institutional context? These questions await answers. As it is, very few studies have examined financialisation-inequality linkage in an empirical fashion, and those that have done so tended to use over-time data from a single country. This is one of the first comparative attempts to consider the impact of financialisation on inequality using cross-national and time-series data.

#### 3.1 *Financialisation*

Many scholars understand financialisation as a global, multi-dimensional process that first began in the US during the early 1980s with a set of deregulatory reforms under the Reagan Administration. Broadly speaking, financialisation denotes the growing size and presence of financial institutions and transactions in the overall economy, and the everyday life of citizens (Krippner, 2005, 2011; Epstein, 2005; Palley, 2007; Orhangazi, 2008; Davis, 2009). More specifically, it encompasses several intertwined processes: (1) the growing share of the financial sector in the economy, (2) the growing reliance of non-financial firms' on financial activities as a source of revenue, (3) the

<sup>3</sup> As Pontusson *et al.* (2002) have argued, the relationship between unionisation and wage distribution may have differential effects across the wage hierarchy – that is, it might depend on where in the wage distribution the members of the unions are. In their view, union density is likely to have greater egalitarian effects across the lower end of the wage distribution rather than the upper end of it.

emergence of a new corporate governance view that sees the firm as a bundle of tradable assets, and (4) the increasing of household engagement with financial markets as consumers of credit or as purchasers of investment products, seeking to generate income or sustain living standards.

To unpack these different dimensions, in the US, since the early 1980s economic activity has steadily moved away from manufacturing and service production to financially oriented activities. While this transformation is not evident when one looks at the employment figures, it becomes strikingly obvious once we shift our attention to relative industry shares of profit, as various scholars have shown (Epstein and Jayadev, 2005; Krippner, 2005, 2011). Epstein and Jayadev (2005) show that while the non-finance sector's profit share declined slightly between the 1960s and 1990s, the share of finance-related sectors more than doubled. Similarly, Krippner (2005, 2011) shows that while the finance sector's share of corporate profits in the US was below 20 per cent during the early 1980s, slightly over two decades later, it was already above 40 per cent.

A sea of changes took place in the banking sector in this period. For one, the long-standing distinction between commercial banking and investment banking has disappeared (Davis, 2009). For the most part of the twentieth century, as Davis explains, banks in the US had been fragmented; commercial and investment banks could not be affiliated through the same holding company (2009, p. 109). Regulations maintaining those boundaries began to dwindle in the 1980s, and were finally repealed by the end of the 1990s, resulting in a large scale industry consolidation (Davis, 2009, p. 119). The same period also saw a significant rise of securitisation. Securitised products have become a major source of liquidity and credit to banks, especially after the 1990s, and contributed to increasing bank profitability. Bank profitability rates which had started to plummet during the previous decade began to increase.

During the same period non-financial corporations became increasingly dependent on financial activities and institutions to generate income, or to compensate for loss of profits generated through more traditional productive activities. The share of portfolio income in corporate cash flow of non-financial firms increased sharply in the United States, from about 14 per cent in the mid-1960 to over 40 per cent in the 1980s and 1990s, a trend which indicates that revenues of non-financial firms came increasingly from financial sources of income (Crotty 2006, p. 107). The same period also witnessed increased acquisition of financial assets by non-financial firms. According to Crotty's analysis of Federal Reserve data, the value of non-financial corporation assets as a percent of the value of tangible assets increased sharply after 1984, more than doubling by the end of the 1990s (2005, pp. 104-106). Various non-

financial corporations, even quintessential industrial firms, also began to set up and manage banking operations, as the examples of GE Capital and Sears Financial most famously represent (Krippner, 2011).

As financial activities began to constitute a larger part of non-financial corporate activity, a new corporate governance model, namely, the “shareholder-value conception of the firm” has begun to take shape, which has further intensified the aforementioned trends (Useem, 1993; Fligstein, 2001; Fligstein and Shin, 2007; Stockhammer, 2004, Davis, 2009). As Fligstein (2001) has shown, under the shareholder-value model, finance-oriented managers began to control major corporations, and increasing the stock prices became the major objective of doing business. The linking of top management pay to stock options particularly enhanced this trend, as Tomaskovic-Devey and Lin (2011) elaborate, shifting the focus of CEOs and boards away from long-term market share, sales, and productive investments towards short-term financial investments and manipulations. Non-financial firms increasingly invested in financial instruments instead of their core businesses.

Although the march towards financialisation of the economy was initially observed in the US, the process has by no means remained exclusive to the US. Similar trends have been observed in other advanced nations as well, albeit at varying degrees. Table 1 below provides several major indicators speaking to the magnitude of financialisation in OECD countries. These include the increase in bank income before taxes, the increase in securities under bank assets, and households’ increasing engagements with financial activities such as stock purchases.

Table 1: *Selected Indicators of Financialisation (1995-2007)*

|                | (a)    | (b)    | (c)    |
|----------------|--------|--------|--------|
| US             | 343.45 | 63.35  | 114.02 |
| Western Europe | 530.23 | 242.64 | 225.04 |
| Japan          | 532.54 | 597.90 | 13.46  |
| New Zealand    | 23.49  | 268.47 | 44.68  |
| Australia      | 489.58 | —      | —      |
| Canada         | 298.82 | 258.45 | 330.62 |

(a) Percentage increase in total value traded in stock market/GDP.

(b) Percentage increase in bank income before taxes.

(c) Percentage increase in securities under bank assets.

### 3.2 *Financialisation and Inequality*

Recently, several scholars have begun to link financialisation and rising income inequality as coinciding trends (Epstein, 2005; Palley, 2007; Tomaskovic-Devey and Lin, 2011; Kremp, 2012). To be sure, income inequality



was already on the rise as financialisation took shape. However, there are several ways in which financialisation might have contributed to it.<sup>4</sup>

First, in terms of the workings of the economy, expansion of finance over the past few decades has come at the expense of the real, productive economy. It is plausible that the shrinking profitability of the non-finance sector implies shrinking net wages for many middle-class and blue-collar workers operating in the productive industries. Second, the shift from the real economy to the financial sector as the dominant source of profit has possibly contributed to the weakening of certain policies and institutions that help keep income disparity in check, such as unions and minimum wage laws. As Palley argues, the erosion of these institutions should be interpreted as part of a new economic configuration that has been explicitly promoted by financial interests (Palley, 2007, pp. 9-14).

Third, the dependence of non-financial firms on the financial sector and market entailed, as we have already discussed, a new corporate governance structure that stressed the alignment of shareholder and manager interests, which invariably led to a focus on short-term profits. This focus gave firms incentive to cut labour costs, while rewarding top executives who made such decisions. This has furthered income inequality in the form of stagnant wages for workers and significantly higher pay for top corporate officers. According to Mishel *et al.* (2007), CEO pay has increased from 38 times average worker pay in 1979 to 262 times worker pay in 2005 (cited in Palley, 2007).

Fourth, the stock market boom of the late 1990s-early 2000s has likely contributed to an increase in the concentration of income at the top (Kremp, 2012). According to Kremp, investors who entered the stock markets towards the beginning of the boom, who were high-income, high net-worth individuals, benefited from higher returns on their investments, while those who entered later, young people with lower income, suffered losses. As a recent OECD report has made it clear that the proportion of income gained from investments, property and capital has increased, especially for rich households over the past few decades (OECD, 2011, p. 35), and much of this income has not remained subject to the same level of taxation that other sources of income are subject to.

Finally government policies aimed at promoting the growth and profitability of the financial sector are also likely to have had implications for inequality. Since the 1980s, reducing inflationary pressures on the economy has remained a key concern for monetarist economists running the central banks of advanced nations. Since inflation undermined banks' ability for borrowing money from customers and lending it to investors, and ultimately

<sup>4</sup> See Palley (2007); Kremp (2012); Tomaskovic-Devey and Lin (2011) for an extended discussion on this topic.

decreased bank profitability, these inflation targeting policies proved favourable to banks and were welcome by the larger finance community. Moreover, this monetarist policy orientation often involved the adoption of austerity measures such as social spending cuts, which in turn curbed the ability of governments to redistribute, leading to widening inequalities.

As articulated here, although there are many channels through which financialisation might have had distributional consequences over the past two decades, the literature on income inequality have so far largely neglected this impact. Those few studies that exist have focused on over-time trends in single countries or sectors. Here, we quantify the relationship between income inequality and financialisation in a cross-national and time-series framework.

#### IV ANALYSIS

In this study we conducted a panel data analysis to determine the impact of financialisation on income inequality in advanced countries using data from 20 OECD countries over a period of 13 years (1995-2007). The units of observation of dependent and independent variables are the country-years. We used annual GINI indices provided by Solt (2011) to measure *income inequality*, our dependent variable. Solt's data is the only available comprehensive data set that offers standardised GINI coefficients on a yearly basis. We are interested in the distribution of disposable income therefore we use net GINI indices instead of gross GINI indices. While the latter measures the inequality in terms of distribution of market income, the latter also takes into effect transfers and taxation, which impact overall level of income inequality. In OECD countries this distinction is important. As Solt (2009) notes, although in the developing world where effective policies to redistribute income are rare, gross and net income inequality trends tend to be very closely related, this is not the case in advanced countries. Depending on the degree to which taxes are progressive and the extent to which government transfers income to poorer members of society, redistribution varies greatly across advanced countries and to a lesser extent over time, affecting the level of disparity in disposable incomes. Hence, the correlation between gross and net income inequality happens to be considerably lower in advanced nations compared to developing countries.

Our key variable of interest is *financialisation*. In our analysis, we used a variety of indicators to capture financialisation, including:

- total value of stock traded on the stock market exchange as a percent of GDP;

- bank profitability, measured in terms of bank income before tax as a percent of GDP;
- securities under bank assets.

We created a new aggregate variable- *financialisation index* – by averaging the standardized scores of three major indicators (bank profitability, value of total stock traded, and securities under bank assets). The data on bank profitability and securities come from the OECD, and the data on stock trade come from Beck, Demirgüç-Kunt and Levine (2009).

To be certain, these three measures that we use do not capture the full nature and extent of the financialisation process, which are described in detail in the preceding pages. The challenge, however, is to make sure that indicators that one might want to use are comparable across-time and space, which is not always possible. The multiple indicators that we use here meet these standards, and when taken together, they capture the multifaceted nature of financialisation to a large degree.

In our analysis, so as to avoid the omitted variable bias, we controlled for various factors that might affect the levels of inequality, which have to do with market conditions and the political institutional system. These include: GDP growth, trade openness, unemployment, female labour force participation, unionisation, government partisanship, wage bargaining centralisation, and social spending. We also included unit dummies in our model to control for country fixed effects, although we do not report the coefficients for them in our regression tables. Table 2 provides the descriptive statistics for the variables included in the analysis.

Table 2: *Descriptive Statistics*

| <i>Variable</i>                           | <i>Observations</i> | <i>Mean</i> | <i>Std. Dev.</i> | <i>Min</i> | <i>Max</i> |
|---|---------------------|-------------|------------------|------------|------------|
| Net GINI                                  | 256                 | 29.521      | 4.464            | 21.695     | 37.266     |
| Unemployment rates                        | 260                 | 6.878       | 3.242            | 2.119      | 22.964     |
| Female participation in the labour market | 240                 | 44.128      | 2.662            | 36.6       | 48.1       |
| GDP Growth                                | 260                 | 2.910       | 1.745            | -2         | 11.5       |
| Trade Openness                            | 260                 | 74.739      | 36.329           | 16.917     | 184.308    |
| Union Density                             | 260                 | 34.948      | 20.768           | 7.6        | 83.1       |
| Left Government                           | 259                 | 0.274       | 0.447            | 0          | 1          |
| Wage Bargaining Centralisation            | 260                 | 3.081       | 1.260            | 1          | 5          |
| Total Social Spending (% of GDP)          | 219                 | 22.847      | 4.822            | 13.042     | 32.473     |
| Stock Value Traded (% of GDP)             | 260                 | 78.903      | 72.732           | 2.798      | 427.854    |
| Security Index (z-score)                  | 220                 | 0           | 1                | -0.778     | 3.662      |
| Bank Income (% of GDP)                    | 221                 | 1.758       | 1.322            | -1.748     | 8.714      |
| Financialisation Index (z-score)          | 221                 | 0.001       | 0.669            | -0.918     | 2.521      |

Panel data analysis offers many well-known benefits for comparative analysis. Mainly, it increases the total number of observations and the degrees of freedom, allowing for estimation of more fully specified models, and makes it possible to examine the observed variance across space and time (Plumper, Troeger and Manow, 2005). On the other hand, it presents several statistical challenges – most notably, that of autocorrelation and heteroskedasticity in the error term. To address these issues, following Beck and Katz (1995), we calculated panel-corrected standard errors, and included a lagged dependent variable to the right side of the equation. Our base line model takes the following form:

$$GINI_{it} = \beta_1 GINI_{i,t-1} + \beta_2 FINANCIALISATION_{it} + \beta_3 X_{it} + u_{it}$$

The results are shown in Table 3. The three major indicators of financialisation – which we specified earlier in the paper – including the total value traded in the stock exchange (as part of GDP), bank profitability, the value of securities under bank assets, as well as the aggregate financialisation index, all display a significant positive association with the level of inequality, controlling for a wide set of conventional explanations. Although we do not report the results in Table 3, we found similar stock market measures such as stock market capitalisation and stock market turnover ratio also display a positive significant association with inequality.

While we addressed the methodological challenges posed by panel design to the best of our ability, there were still some issues to be considered – most importantly, the possibility that some of the regressors may not be strictly exogenous. Therefore, we replicated our analysis using the Generalised Method of Moments (GMM) technique (Arellano-Bond, 1991; Blundell and Bond, 1998). GMM estimators are particularly apt for panel analyses in the presence of independent regressors that are not strictly exogenous, fixed unit effects, and individual-specific patterns of heteroskedasticity and serial correlation (Roodman, 2006). In this paper, we used system dynamic GMM estimators (Blundell and Bond, 1998). As seen in Table 4, the new set of results we obtained using system dynamic GMM estimators are consistent with our previous findings.

It is well known to comparative political economists that the effects of large scale economic shifts such as financialisation may vary across contexts by virtue of interacting with certain political and institutional trends. On that front, we sought to examine whether the impact of financialisation on inequality might depend on union density, which the existing literature, as well as our analysis, has shown to be a major determinant of inequality. In order to answer this question, we split our sample into two groups at the mean

Table 3: *Financialisation and Inequality in OECD Countries: Panel Data Analysis (1995-2007)*

|   | <i>Model 1</i>      | <i>Model 2</i>       | <i>Model 3</i>       | <i>Model 4</i>       |
|---|---------------------|----------------------|----------------------|----------------------|
| Lag GINI                                  | 0.622***<br>(0.087) | 0.609***<br>(0.089)  | 0.650***<br>(0.094)  | 0.602***<br>(0.090)  |
| Unemployment Rate                         | 0.076**<br>(0.032)  | 0.121***<br>(0.031)  | 0.072**<br>(0.034)   | 0.071**<br>(0.030)   |
| Female Labour                             | -0.092<br>(0.107)   | 0.055<br>(0.083)     | -0.011<br>(0.108)    | 0.015<br>(0.098)     |
| GDP Growth                                | -0.008<br>(0.044)   | 0.021<br>(0.036)     | 0.010<br>(0.048)     | 0.037<br>(0.046)     |
| Trade Openness                            | 0.002<br>(0.009)    | 0.003<br>(0.008)     | 0.003<br>(0.010)     | -0.000<br>(0.009)    |
| Union Density                             | -0.119**<br>(0.047) | -0.126***<br>(0.038) | -0.131***<br>(0.048) | -0.147***<br>(0.043) |
| Left Government                           | -0.095<br>(0.133)   | -0.156<br>(0.115)    | -0.106<br>(0.149)    | -0.226<br>(0.139)    |
| Wage Bargaining Centralisation            | 0.409***<br>(0.144) | -0.303***<br>(0.115) | -0.422***<br>(0.159) | -0.432***<br>(0.150) |
| Social Spending                           | -0.042<br>(0.052)   | -0.008<br>(0.043)    | -0.053<br>(0.055)    | -0.073<br>(0.066)    |
| Financialisation Index                    | 0.766***<br>(0.244) |                      |                      |                      |
| Value of Stock Traded (% GDP)             |                     | 0.0059***<br>(0.001) |                      |                      |
| Bank income before tax (% GDP)            |                     |                      | 0.184*<br>(0.110)    |                      |
| Securities Under Bank Assets<br>(z-score) |                     |                      |                      | 0.438*<br>(0.228)    |
| N   | 170                 | 199                  | 170                  | 170                  |

Note: Panel-corrected standard errors in parentheses. Unit dummies are controlled for but not reported; \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

value of union density – nations with high union density versus nations with low union density before we applied the GMM estimation technique. Table 5 shows the results of this exercise. We find that financialisation has a positive association with income inequality in nations with strong as well as weak unions, although the association is stronger in nations with weak unions. This is not surprising for us. It remains in line with the existing state of knowledge in the comparative political economy literature. Given the fact that strong unions, a chief characteristic of coordinated market economies, have historically remained a bulwark against the emergence of wide wage inequalities, it is not surprising to us that the impact of financialisation on

Table 4: *Financialisation and Inequality in OECD Countries*  
(System GMM Estimators)

|                                | <i>Model 1</i>       | <i>Model 2</i>      | <i>Model 3</i>       | <i>Model 4</i>       |
|--------------------------------|----------------------|---------------------|----------------------|----------------------|
| Lag GINI                       | 0.648***<br>(0.083)  | 0.884***<br>(0.052) | 0.609***<br>(0.068)  | 0.658***<br>(0.063)  |
| Unemployment Rate              | 0.038<br>(0.041)     | -0.002<br>(0.030)   | 0.045<br>(0.045)     | 0.021<br>(0.032)     |
| Female Labour                  | -0.228***<br>(0.088) | -0.043<br>(0.056)   | -0.215**<br>(0.088)  | -0.208**<br>(0.084)  |
| GDP Growth                     | -0.028<br>(0.042)    | -0.016<br>(0.043)   | -0.042<br>(0.051)    | 0.019<br>(0.056)     |
| Trade Openness                 | -0.006*<br>(0.003)   | -0.001<br>(0.001)   | -0.011***<br>(0.004) | -0.000<br>(0.066)    |
| Union Density                  | -0.003<br>(0.009)    | -0.003<br>(0.005)   | -0.011<br>(0.009)    | -0.002<br>(0.010)    |
| Left Government                | -0.024<br>(0.169)    | 0.001<br>(0.120)    | -0.036<br>(0.212)    | -0.150<br>(0.134)    |
| Wage Bargaining Centralisation | -0.455***<br>(0.143) | -0.172**<br>(0.080) | -0.449***<br>(0.154) | -0.509***<br>(0.168) |
| Social Spending                | -0.128***<br>(0.042) | -0.045<br>(0.031)   | -0.157***<br>(0.046) | -0.105**<br>(0.052)  |
| Financialisation Index         | 0.720***<br>(0.217)  |                     |                      |                      |
| Value of Stock Traded (% GDP)  |                      | 0.002**<br>(0.001)  |                      |                      |
| Bank Income Before Tax         |                      |                     | 0.290***<br>(0.073)  |                      |
| Securities Under Bank Assets   |                      |                     |                      | 0.555**<br>(0.269)   |
| N                              | 170                  | 199                 | 170                  | 170                  |

Note: Robust standard errors in parentheses; \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

income inequality would be somewhat more pronounced in nations with weaker unions. At the same time, the results also show financialisation to have had a positive upward effect on inequality across both contexts. This is not entirely surprising either given that unions have lost some of their institutional power in the neo-liberal era, and therefore might have had limited ability to shield labour markets from the inequality producing effects of financialisation.

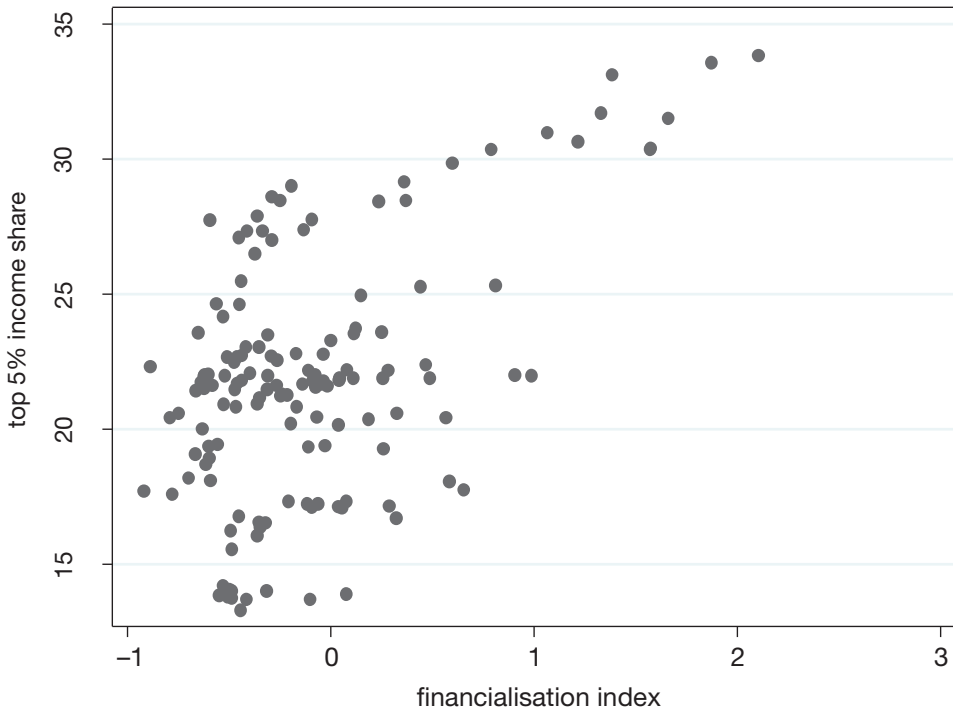
It is worth noting that the hypothesised effects of financialisation are likely to be most pronounced towards the top of the income distribution. Hence, it would be worthwhile to extend this analysis by looking at the impact

Table 5: *Financialisation, Inequality and Union Density*  
(System GMM Estimators)

|                                | <i>Model 5</i><br>(Nations with<br>Low Union Density) | <i>Model 6</i><br>(Nations with<br>High Union Density) |
|--------------------------------|---|--|
| Lag GINI                       | 0.734***<br>(0.1037)                                  | 0.605***<br>(0.87)                                     |
| Unemployment Rate              | 0.007<br>(0.056)                                      | 0.009<br>(0.099)                                       |
| Female Labour                  | -0.294**<br>(-0.128)                                  | -0.307***<br>(0.058)                                   |
| GDP Growth                     | -0.119<br>(0.076)                                     | 0.024<br>(0.003)                                       |
| Trade Openness                 | -0.005<br>(0.005)                                     | -0.008***<br>(0.080)                                   |
| Left Government                | 0.381<br>(0.253)                                      | -0.419**<br>(0.177)                                    |
| Wage Bargaining Centralisation | -0.766***<br>(0.253)                                  | -0.251<br>(0.035)                                      |
| Social Spending                | -0.039<br>(0.054)                                     | -0.118***<br>( )                                       |
| Financialisation               | 0.885***<br>(0.272)                                   | 0.877**<br>(0.308)                                     |
| N                              | 97  | 70   |

Note: Robust standard errors in parentheses; \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

of financialisation on top income shares (Alverado, Atkinson, Piketty and Saez, 2011). Since data is missing for several of the countries and several of the years included in our analysis, the number of observations drop significantly, making it tricky to use top income data as a complementary dependent variable for our analysis. Using the data available; however, we plot the financialisation index against the top 5 per cent's share of income, as seen in Figure 3. The associational pattern we observe confirms our expectations.

Figure 3: *Financialisation and Top Income Shares*

## V CONCLUSION

Financialisation is one of the most significant transformations that advanced economies have undergone over the past few decades. Although many scholars have alluded to the positive impact of financialisation on inequality, few have examined it empirically. Moreover, existing empirical analyses have focused on single country cases or specific sectors, making it impossible to gain comparative insights. In this paper, we collected internationally comparable data on three different indicators of financialisation in order to examine the relationship between financialisation and income inequality. All four indicators of financialisation that we included in our analysis – namely, total value of stock traded on the stock market exchange as a percentage of GDP, bank profitability measured in terms of bank income before tax as a percentage of GDP, securities under bank assets, as well as the aggregate financialisation index that we used – have displayed a significant positive association with income inequality net of conventional explanations under various model specifications we employed. Based on these results we



conclude that financialisation has exerted an upward pressure on income inequality. Unions were not successful; it seems to us, in alleviating the inequality producing effects of financial markets. Although the association between financialisation and income inequality remained slightly stronger in nations with low union density than in nations with high union density, financialisation effect has remained robust across both contexts.

The study has several limitations that need to be noted. First, the analysis starts only from 1995, since comparable financialisation variables are not available for prior dates. Second, the study relies on several indicators of financialisation. To be sure, these indicators do not capture financialisation in its entirety. Moreover, although the paper discusses the potential channels through which financialisation might influence income inequality, the macro-comparative analysis conducted here does not allow for teasing out the specific chains of causation. Be that as it may, when taken together, the indicators used give us a good idea as to the degree to which the turn to finance has happened across advanced nations since 1995; and the results convince us that the literature on income inequality should start paying more attention to financialisation in order to account for the degree and the ways in which income inequality soared in advanced nations. This is important not only from a scholarly perspective, but also from a policy perspective. Tackling the ever-growing income divide, after all, may only be possible with an accurate diagnosis of the causes that produce it. To be sure, as more data becomes available, researchers would be able to draw more nuanced and robust conclusions in that respect.

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