Financialisation and income inequality in selected OECD countries, 1980-2021

Extended abstract

Mateusz Racławski
Department of Macroeconomics, Krakow University of Economics
raclawsm@uek.krakow.pl

Introduction

Since around 1980, a growing importance of financial markets has been observed in many OECD countries. In recent decades, the share of the value added by the financial sector as the percentage of GDP increased in some countries. Moreover, during the same period, it was observed that non-financial enterprises increasingly became intertwined with financial markets. They began acquiring financial assets and started to base their decisions on shareholder interests, adhering to the so-called shareholder value model. Some scholars refer to these phenomena as the process of financialisation and, within this framework, study the consequences of the development of financial markets (e.g. Epstein 2005; Krippner 2005; Stockhammer 2012). Perhaps the broadest definition of the process states (Epstein 2005: 3) that "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 aim of this paper is to research the relationship between financialisation and income inequality in OECD countries. Income inequality, as measured by the Gini coefficient or income share held by the top 1%, has worsened in many OECD countries in the last four decades. The average value of the GINI coefficient in OECD countries increased from around 0,44 in 1980 to 0,49 in 2021[1]. While there are numerous theories trying to explain this phenomenon (e.g. the SBTC framework or theories connected to globalisation or changes in labour institutions), the effect of financialisation is studied in this paper.

Literature review

Since the 2000s, some researchers have begun to explore the potential channels through which the development of financial markets could contribute to worsening income inequality (e.g.

[1] Own calculation based on the date acquired from World Inequality Database (2024).

Dore 2008; Kus 2012; Zalewski and Whalen 2010). Conducting a literature review allowed for the identification of four main channels through which the process of financialization led to increased income inequality in developed economies. The first channel involves the rising incomes of financial sector employees, a trend ongoing since the 1980s (Davis and Kim 2015). This "wage premium" is said to be mainly caused by bonuses received by managers in financial corporations (Stockhammer 2010), which, according to Zalewski and Whalen (2010: 767), are more reflective of corporate culture than managerial productivity. Wage premium may have also caused a "brain drain" from the real economy (Dore 2008: 1109). The second channel is the increased income of shareholders (Power et al. 2003: 70). Speculative trading exacerbated income inequality, as only those who already had savings were able to participate in investing (Kus 2012: 485).

The third channel concerns non-financial enterprises. Some companies started directing their investments towards financial assets at the cost of expanding production capabilities. Generating income from financial markets incentivized such companies to reduce employment (Lin and Tomaskovic-Devey 2013: 1292-1294), which had a negative effect on the incomes of the middle and working class (Kus 2012: 485; Naples and Van Arnum 2013: 1166). At the same time, managers prioritized maximising shareholder value by reducing labour costs (Charpe and Torbin 2011: 61; Duménil and Lévy 2001: 588). These cost reductions were also driven by focusing on the short-term perspective – incomes of managers were often tied to the short-term performance, which incentivized wage reductions (Crotty 2005).

A fourth channel involves a shift in the balance of power in the economy from labour to capital (Stockhammer 2010). Institutional investors had the power to lobby for legal changes in their favor, such as lowering taxes on capital gains or weakening collective bargaining (Zalewski and Whalen 2010: 766-767). Institutional change was also driven by a shift in monetary and fiscal policy: a focus on reducing inflation rate (at the expense of striving to reach full employment), coupled with reduced social spending, was beneficial for agents in financial markets but led to an increase in income inequality (Epstein 2002: 3, 16; Kus 2012: 485-486).

These findings became a foundation for empirical research. In 2010s, many papers examined the relationship between financialisation and income inequality using quantitative methods. Some economists provided evidence that financialisation is associated with an increase in income inequality , as measured by the Gini coefficient (Assa 2012; Kus 2012; Naples and Van Arnum 2013; Hyde et al. 2018; Tridico and Pariboni 2018) or other measures (Flaherty 2015;

Alvarez 2015; Stockhammer 2015; Tanndal and Waldenström 2018; Godechot 2020; Huber et al. 2020).

Methodology

The main hypothesis verified in the study is as follows: the process of financialisation financialisation contributes to an increase in pre-tax income inequality in OECD countries. To verify this hypothesis, an econometric model with panel data was used. It was originally decided to examine the period 1980-2021. Its beginning matches the rise of financialisation, while the end was set at 2021 to examine the latest available data. Although it was originally decided to examine such a period, no available data on the financialisation process covered this interval in its entirety. Therefore, to study both the main wave of financialisation between 1980 and 2007 and the period of the last twenty years, it was decided to study them separately using the same independent variables concerning financialisation but obtained from different sources for each period studied. Thus, for the 1980-2007 study, data on the independent variables were extracted from the EU KLEMS (2023) database. Due to the availability of data in the EU KLEMS database, the broadest sample in terms of number of countries for the period 1980-2007 includes 11 OECD member states (Austria, Belgium, Finland, France, Germany, Italy, Japan, Netherlands, Spain, UK, USA).

To examine recent decades, data for the independent variables were obtained from the OECD database (2023). The widest possible sample in terms of number of countries based on OECD data contains 34 countries. The division of the study into two separate periods was necessitated by the lack of compatibility between the values of the independent variables in the databases provided. In addition to examining the sample including the largest possible number of countries due to data availability, it was decided to examine two other samples over the period 1997-2021. A sample of 30 OECD member countries was therefore also examined, as four countries (Chile, Costa Rica, Luxembourg, and Mexico) included in the previous sample were characterised by extreme values of dependent variables representing inequality or independent variables representing financial sector's development. Within the 1997-2021 period, a sample containing 11 countries from the 1980-2007 interval was also examined. Although the lack of compatibility between data from the EU KLEMS and OECD databases makes it impossible to examine the 1980-2021 period within the same calculation, examining the same countries in each of the periods examined allows a form of continuity in the research to be maintained. Thus, in the end, the following samples were examined in the model:

- sample 1: 11 countries, 1980-2007;
- sample 2: 34 countries, 1997-2021;
- sample 3: 30 countries, 1997-2021;
- sample 4: 11 countries, 1997-2021;

The research used two dependent variables representing income inequality, i.e. the Gini coefficient of income inequality (*gini_ineq*) and the share of the top 1% earners in total income (*one_ineq*). The study used two independent variables representing the development of the financial sector relative to other sectors of the economy. The share of the value added by the financial and insurance sector (*fiva*) and the financial, insurance and real estate sector (*fire*) in the value added of all sectors of the economy was chosen. Control variables were also used in the model. In the first sample, these included: the value added of the IT sector (*it*) as a share of the value added of all sectors of the economy (this variable is intended to represent technological development and the associated higher wages of skilled workers), GDP per capita (*gdppc*) reflecting business cycles, and the importance of international trade (the sum of the value of exports and imports as a share of a country's GDP - *trade*), a variable intended to reflect the globalisation of world trade. In samples 2, 3, and 4, control variables included GDP per capita and international trade, as well as the level of unemployment in a given country (*unem*). Independent variables representing the share of the financial sector and the FIRE sector are positively correlated with variables representing income inequality in nearly all cases. For example, in sample number 4, the Pearson correlation coefficient between the variables *lnfiva* and *lngini_ineq* is 0.57.

It was originally decided to use a fixed-effects model in the study, because in a multi-country panel study it can be assumed that there are fixed and unobservable differences between countries that can affect the values of the dependent variables. However, stationarity tests by Levin, Lin, and Chu (2002) and Im, Pesaran and Shin (2003) were performed, which established that most of the variables in each sample are non-stationary. Therefore, according to common econometric practice, each variable was transformed into its first difference. Such a transformation causes fixed effects to be lost and therefore a linear regression model was used to perform the initial estimations. The model uses natural logarithms of the variables and robust standard errors, the use of which is adequate for variables potentially characterised by heteroskedasticity and autocorrelation. The equations describing the relationship examined in the baseline estimation took the following form:

1. $\Delta lngini\_ineq_{i,t} = \gamma_0 + \gamma_1 \Delta lnfiva_{i,t} + \boldsymbol{\delta}\Delta \boldsymbol{X_{i,t}} + \Delta e_{i,t}$
2. $\Delta lngini\_ineq_{i,t} = \gamma_0 + \gamma_1 \Delta lnfireva_{i,t} + \boldsymbol{\delta}\Delta \boldsymbol{X_{i,t}} + \Delta e_{i,t}$
3. $\Delta lnone\_ineq_{i,t} = \gamma_0 + \gamma_1 \Delta lnfiva_{i,t} + \boldsymbol{\delta}\Delta \boldsymbol{X_{i,t}} + \Delta e_{i,t}$
4. $\Delta lnone\_ineq_{i,t} = \gamma_0 + \gamma_1 \Delta lnfiva_{i,t} + \boldsymbol{\delta}\Delta \boldsymbol{X_{i,t}} + \Delta e_{i,t}$

Where:

- i – country;
- t – year;
- γ_0 – constant
- γ_1 – parameter estimates of independent variable
- $\boldsymbol{X_{i,t}}$ – vector of control variables;
- $\boldsymbol{\delta}$ – vector of parameter estimates of control variables;
- $e_{i,t}$ – value of the random component

In addition to the above estimation, a more sophisticated estimation method with lagged dependent variables will be performed in the final version of the paper. To account for endogeneity, a dynamic panel data model (the Arellano Bond estimator) will be used. Dummy variables will be introduced to account for differences between specific countries (e.g. high-income and low-income countries in samples 2 and 3). It also intended to study several sub-samples, since descriptive statistics has resulted with high correlation values between dependent and independent variables in cases, where only the biggest economies were studied. For example, in a sub-sample involving five countries (USA, UK, France, Germany, Spain) the correlation between variables *lnfireva* and *lnone_ineq* is equal to 0,82.

Preliminary results

Preliminary results show that an increase in the share of the value added of the financial sector in the value of all sectors of the economy had a statistically significant effect on the increase in income inequality, as measured by both the Gini coefficient and the share of the top 1% of earners in total income, in 11 OECD countries between 1980 and 2007. For example, a 1% increase in financialization leads to a 0.0261% increase in the Gini coefficient, suggesting a positive relationship between financialization and inequality in this sample. Analogous conclusions can be reached for sample 4 (the same 11 OECD countries from 1997 to 2021) - the effect of the d.lnfiva variable is 0.0466%. Similar conclusions can be drawn regarding the relationship between the variable d.lnfiva and the share of the top 1% of earners in total income. Here, the model indicates a statistically significant relationship in sample 4. This means that among the 11 high-income countries from 1997-2021, an increase of 1% in the share of the

financial and insurance sector in the economy is associated with an increase of 0.142% in the share of the top 1% of earners in total income.

These results support the hypothesis that financialisation has contributed to an increase in income inequality in in high-income OECD countries. Significant F-statistic appears to confirm the overall validity of these results. At the same time, the model does not show a statistically significant effect of the d.lnfire variable on the level of income inequality. The model also does not show a statistically significant effect of the financialisation process on the level of inequality in samples 2 and 3, which include most OECD countries. Perhaps a dynamic model will capture a significant relationship between financialisation and inequality in these samples.

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