



The Impact of Financial Liberalization on Income Distribution: Analysis of G-7 Countries

Finansal Serbestleşmenin Gelir Dağılımı Üzerine Etkisi: G-7 Ülkeleri Analizi

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ABSTRACT

The impact of financial liberalisation on income distribution has attracted increasing attention. However, the debate on whether financial liberalisation is a gain or a loss is still ongoing. Especially in the 1990s, following the collapse of the Bretton Woods system, financial liberalisation became a globally widespread concept. While this concept constituted the basis of neoliberal policies, it emerged as a saviour solution in periods when state policies were dominant. Financial liberalisation means the implementation of policies and reforms that emphasise the liberalisation of the international financial system and the liberalisation of capital flows. In this period, processes such as liberalisation of capital flows, development of financial markets, deregulation of the banking sector and increased international financial integration have come to the fore. In this context, examining the impact of financial liberalisation on income distribution has become an important issue among economists and researchers. Moreover, among the countries where financial liberalisation policies have been implemented, some of them have achieved positive results, while in others they have led to costly crises. In this framework, the aim of this study is to examine the impact of financial liberalisation on G-7 countries during the 2008 crisis period. This is because the potential effects of financial liberalisation on developed countries during crisis periods are desired to be observed. In the study, the relationship between financial liberalisation and income distribution was analysed by panel data analysis method using data from 2003-2013. According to the results of the analysis, it is observed that financial liberalisation has a positive effect on income distribution in developed countries.

Keywords: *Financial Liberalization, Income Distribution, G-7*

ÖZET

Finansal serbestleşmenin gelir dağılımı üzerindeki etkisi giderek artan bir ilgi çekmektedir. Ancak, bu konuda finansal serbestleşmenin kazanç mı yoksa kayıp mı olduğuna dair tartışmalar hala devam etmektedir. Özellikle Bretton Woods sisteminin çöküşünün ardından, 1990'lı yıllarda, finansal serbestleşme, küresel ölçekte yaygınlaşmış bir kavram haline gelmiştir. Bu kavram, neoliberal politikaların temelini oluştururken, devlet politikalarının egemen olduğu dönemlerde bir kurtarıcı çözüm olarak ortaya çıkmıştır. Finansal serbestleşme, uluslararası finansal sistemin liberalleşmesini ve sermaye hareketlerinin serbestleşmesini vurgulayan politika ve reformların uygulanması anlamına gelmektedir. Bu dönemde, sermaye akışlarının serbestleşmesi, finansal piyasaların gelişimi, bankacılık sektörünün deregülasyonu ve uluslararası finansal entegrasyonun artması gibi süreçler ön plana çıkmıştır. Bu bağlamda, finansal serbestleşmenin gelir dağılımı üzerindeki etkisini incelemek, ekonomistler ve araştırmacılar arasında önemli bir konu haline gelmiştir. Ayrıca finansal serbestleşme politikaları uygulanan ülkeler arasında, bazıları olumlu sonuçlar elde ederken, bazılarında maliyeti yüksek krizlere yol açmıştır. Bu çerçevede, çalışmanın amacı, G-7 ülkeleri özelinde finansal serbestleşmenin etkisini 2008 krizi dönemi içerisinde incelemektir. Çünkü finansal serbestleşmenin potansiyel etkileri kriz dönemlerinde gelişmiş ülkeler üzerinde ki etkisi gözlemlenmek istenmiştir. Çalışmada, 2003-2013 yıllarına ait veriler kullanılarak panel veri analizi yöntemiyle finansal serbestleşme ile gelir dağılımı arasındaki ilişki analiz edilmiştir. Yapılan analiz sonuçlarına göre, gelişmiş ülkelerde finansal serbestleşmenin gelir dağılımı üzerinde olumlu yönlü bir etkisinin olduğu gözlemlenmiştir.

Anahtar Kelimeler: *Finansal Serbestleşme, Gelir Dağılımı, G-7*

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1. Introduction

Living together and engaging in constant interaction are fundamental aspects of human nature, leading to the formation of communities that maintain connections with one another. Over time,

this communication has evolved into a process known as globalization, characterized by the dissemination of products, technology, and information. Consequently, increased communication has facilitated heightened economic activities among communities, giving rise to various economic approaches throughout

history. Following the Second World War, the Keynesian perspective dominated the market, where central authorities exerted control. However, this interventionist approach led to economic downturns in the 1970s, triggering disagreements. The involvement of central authorities in market affairs fostered development through import substitution policies, which was deemed normal. This crisis prompted the rise of neoclassical approaches, which advocated for reduced state intervention compared to classical thought. Within this context, it is believed that financial liberalization can accelerate economic growth and development in countries while promoting more efficient resource utilization.

Developing countries turned to financial liberalization policies as a response to the economic challenges they faced in the 1970s. During this period, countries grappling with limited resources for achieving economic growth and development sought solutions through liberalization policies. Additionally, the lack of foreign resources prompted developing nations to bolster their domestic savings, thereby stimulating local markets. This approach gained widespread acceptance as an effective solution for their economic circumstances.

Financial liberalization has brought about high expectations for the development of financial markets. The excessive influence of the state in the markets had exerted significant pressure on prices and quantities, hindering market development. Particularly with the reduction of public intervention, there was an anticipation of increased domestic savings. It was believed that the growth in savings would provide funding for the expansion of financial markets and subsequently lead to increased investments. These expectations were envisioned to ultimately contribute to the overall economic growth and development of the country.

The effects of the gradual increase in financial liberalization since the 1980s on income distribution have started to become evident. Research suggests that the integration of national markets with international markets contributes to rising income inequality (Asteriou et al (2014); De Haan and Sturm (2017); Furceri et al (2017). However, there is no complete consensus. In some studies, however, the opposite is argued Agnello et al (2012); Delis et al (2014); Li and Yu (2014).

The aim of this study is to analyse the complex relationship between financial liberalisation and income inequality, with a particular focus on the G7 countries. Examining the financial liberalisation policies of the G7 countries is crucial to understanding their potential impact on global economic dynamics. While these countries play an important role as determinants of the global economy, their economic diversity and socio-economic structures provide an opportunity to assess the impact of financial liberalisation on income inequality from a broad perspective. The study seeks to shed light on the complex dynamics between financial liberalisation and income inequality by delving into the specific context of the G7 countries.

The second part of the study provides a general overview of the theory related to the topic. In the third chapter, the literature pertaining to the subject is reviewed, followed by an analysis of the econometric model and the interpretation of the obtained results.

2. Financial Liberalization and Income Distribution

In the 1970s, the notions of liberalization and globalization started to emerge as a result of actions taken by conservative factions in the United States to detach the market economy from public influence. Globalization refers to the dissemination of economic, social, and cultural values beyond local boundaries, extending to an international level and giving rise to a common system (Kazgan, 1994). Increasing technology and globalization have also begun to

affect the financial markets. At this point, the concept of financial liberalization can be defined in a narrow and broad sense. Financial liberalization can be defined as a restriction on loan rates and deposits (Williamson and Mahar, 2002). Another definition of financial liberalization entails the government relieving pressure on the financial system and allowing it to operate based on market signals. Such pressures and state interventions typically include restrictions on interest rates, exchange rates, and foreign capital movements. In this context, financial liberalization involves the removal of foreign exchange restrictions, the freedom of capital inflows, the determination of interest rates under free market conditions, and the absence of credit restrictions (Selen, 1997).

Since the 1980s, rapid technological advancements have significantly accelerated globalization, leading to various global-scale effects. Within this restructuring process, financial globalization has emerged as a crucial aspect. Financial globalization has played a pivotal role in accelerating the overall globalization process, making it one of the most significant factors in this transformation (Aydemir and Mehmet, 2007). Countries have made some reforms in order to catch up with this process globally. In this process, the financial liberalization hypothesis put forward by McKinnon (1973) and Shaw (1973) formed the basis of these policies.

As financial liberalization has expanded on a global scale, academic studies have taken a two-dimensional approach. These dimensions encompass the liberalization of the domestic financial sector and the opening of capital accounts, which involve the diminishing role of governments and the growing influence of international capital (Abiad et al 2008; Batuo and Asongu, 2015). Economic globalization and financial liberalization have become significant phenomena in light of the increasing capital transfers between countries and the growth of the industrial economy. However, despite technological advancements and rising incomes, the benefits of these developments have not been evenly distributed among all classes within many countries. This disparity has led to economic weakening in certain economies (Ni and Liu, 2019).

With the advent of globalization and the process of financial liberalization, many developing countries have implemented structural adjustment programs to revive their weakened economies. These programs aim to enhance resource efficiency, increase production and productivity, and address deficiencies that hinder financial development. They are primarily based on competition-driven incentives, aiming for prudent utilization of savings and capital. In this context, liberalization entails opening both the financial and real sectors to market forces. To achieve this, measures such as abolishing credit controls, minimizing public interference in interest rate determination, removing barriers to entry in the financial sector, and limiting interventions are necessary. Additionally, restrictions on the free movement of international capital flows should be lifted (Williamson and Mahar, 2002).

Financial liberalization is examined under two main headings. These are referred to as internal and external financial liberalization. Internal financial liberalization is when the authority removes direct controls on domestic markets and does not interfere with the free entry and exit of international capital in the national market. In addition, it ensures the integration of the existing market with the international markets by enabling the markets to function in better conditions (Eser, 2012). External financial liberalization, on the other hand, means that the citizens of the country enter into debt and receivable relations in foreign currency and that foreigners buy assets from the national markets. In this way, local people will be able to borrow and invest freely in international markets, while

foreign investors will be able to invest and borrow in the local market (Kaya, 1998).

When reviewing the literature, some studies categorize the concept of external financial liberalization into three main headings. Firstly, it involves enabling both domestic and foreign investors to participate in national and international financial markets. Secondly, it entails allowing resident capital owners to hold financial assets and transfer capital from abroad, while foreign investors are permitted to borrow from the local market. Lastly, it involves permitting the use of foreign currency for purchases made in the national market (Doğru, 2002).

Furthermore, factors such as achieving the integration of global markets through external financial liberalization and allowing market determination of exchange rates without intervening in the foreign exchange market are also considered. Countries have recognized that foreign financial liberalization and addressing domestic savings deficiencies with foreign resources can contribute to the growth process of the nation. With external financial liberalization, countries have harbored various expectations, including increased competition through foreign capital, economic dynamism, access to new technologies, and more efficient utilization of savings (Kar and Kara, 2003).

In terms of income distribution, significant increases in income inequality became apparent in developed countries after the oil shock in the 1970s and the subsequent breakdown of the Bretton Woods system. There was a prevailing belief that financial liberalization would not only promote economic growth but also foster more equitable income distribution. However, in practice, this expectation did not yield similar results. Numerous studies conducted in recent years have provided evidence to support this notion. While financial liberalization may have accelerated economic growth, it has also been associated with a decrease in productivity and an increase in income inequality (Tropeano, 2006). The rise in income inequality can be attributed to disparities in earnings, which, in turn, can be explained by factors such as trade liberalization, labor market disruptions, and skill-based developments. In developed countries, income distribution inequality is further exacerbated by factors such as uneven fixed capital investments, imbalances in labor supply, and disparities in productivity growth rates. Restrictive policies and disruptions in the financial markets also contribute to the widening income inequality (Konukman and Çiftçi, 2008).

3. Literature Review

In this section, we will delve into the research conducted on the effects of financial liberalization on income distribution. Both theoretical and empirical studies on this topic will be thoroughly explored, shedding light on the overall impact and outcomes of these investigations.

Quinn (1997), he was the first conducted a systematic examination of the primary causes influencing national income distribution resulting from financial liberalization identified three mechanisms. The first mechanism involves individual measures taken to safeguard against domestic financial imbalances. The second mechanism is progressive taxation, which aims to address income disparities. Lastly, the relative price effect of capital through government revenue transfer serves as the third mechanism identified.

In the study of Ang and McKibbin (2007) the causal relationship between financial liberalization and income inequality in India, a rapidly growing country that has made significant financial developments since 1991, was examined. As a result, it was found that there is a long-term and two-way causality relationship between

financial liberalization and income inequality. Ni and Liu (2019) obtained 556 predictions in their meta-analysis study on 23 countries. According to their results, they found a negative relationship between financial liberalization and income inequality.

Dreher and Gaston (2008) made an analysis of OECD countries using the KOF index and income and wage inequality data between 1970-2000 and concluded that globalization increases income inequality. Likewise, a study Bergh and Nilsson (2010); examined the relationship between the KOF globalization index and the Fraser Institute's economic freedom index and the net income inequality of 79 countries over the period 1970-2005. In the study using the GMM estimator, the researchers concluded that reforms toward economic freedom tend to increase income inequality in rich countries and that social globalization is more important for middle- and low-income countries. Moreover, their empirical findings show that monetary reforms, legal reforms, and political globalization do not increase inequality.

Balan et al (2015) examined the years 1970-2010 in their study of G7 countries. In their study, the researchers utilized the Granger causality analysis developed by Kónya (2006) to examine the relationship between the KOF index of globalization and income inequality. The analysis assessed the impact of globalization on income inequality across various economic, social, political, and overall dimensions in the selected countries. The results revealed that there is a one-way causality between economic globalization and income inequality in Canada and France. However, a bidirectional causality was observed between globalization and income inequality in England. Furthermore, it was concluded that there is a one-way causality from social globalization to income inequality in France and England, and from political globalization to income inequality in France. Regarding the causality between overall globalization and income inequality, the findings indicated that general globalization has a negative effect on income inequality in Canada, England, and France, while there was no empirical evidence supporting the relationship in Germany, Italy, Japan, and the USA.

Naceur and Zhang (2016) examined the relationship between financial development and income distribution. Various dimensions of financial development were taken into account in the study examining the 1961-2011 periods in 143 countries. These; financial access, stability, efficiency, and liberalization. According to the results of the study, other dimensions other than financial liberalization have significantly reduced income inequality and poverty. Erauskin and Turnovsky (2019) examined the effect of financial globalization on income inequality using a stochastic growth model. Thanks to financial liberalization, the problems in debt relations have decreased and it has been revealed that liberalization affects inequality. In the study, which examined the period 1970-2015, 96 countries were discussed. As a result of the study, it has been found that while the increase in financial liberalization affects the GDP more in the creditor countries, the same is not the case in the debtor countries.

Adeel-Farooq et al (2017) conducted an empirical study to examine the effects of financial liberalization and trade openness on the economic growth of Pakistan and India using data from 1985 to 2014. The study employed the autoregressive distributed lag technique and utilized the principal component method to construct an index measuring the impact of financial liberalization on economic growth in the selected countries. The findings indicated that trade openness has a positive impact on Pakistan's economic growth in both the short and long term, while financial liberalization has a positive effect only in the long term. In India, on the other hand, both financial liberalization and trade openness were found to have

a positive and significant influence on economic growth in both the short and long term. In another study by Heshmati (2007), the impact of globalization on income inequality was investigated. The study focused on the period from 1995 to 2001 and analyzed data from 62 countries. Globalization was measured using composite globalization indexes, including the Kearney composite globalization index. The findings revealed that the effect of globalization on income inequality ranged from 7% to 11% among the examined countries.

Wang and Luo (2023) investigate the relationship between income inequality and financial liberalisations, drawing inspiration from Rajan's research and existing theories of economic reform, especially lobby theory. Despite the lack of concrete evidence supporting the idea that income inequality drives financial liberalisations, the paper formalises and empirically investigates this hypothesis using a two-way fixed effect ordered logit model and panel data from 91 countries. The main results reveal a positive and significant correlation between income inequality and financial liberalisations at both aggregate and component level. Robustness checks including various measures such as IV-2SLS, Lewbel instrumental variable technique and within-group difference confirm the stability of these findings. Moreover, the study explores the heterogeneous effects of income inequality across countries, predicts financial liberalisations based on changes in income and wealth inequality, and supports Rajan's hypothesis that income inequality facilitates access to credit for the poor. The study also examines the role of financial liberalisations in shaping banking stability, finding that they contribute to economic growth and reduce financial risks. The empirical results lead to the conclusion that income inequality does indeed shape financial liberalisations. To confirm these main results, it performs robustness checks of various dimensions that confirm the stability of the idea that income inequality is an important determinant of financial liberalisations. It provides extension analyses, including heterogeneous effects across countries, the effects of income inequality and the rate of change in wealth inequality on financial liberalisations, and a general description by Rajan. The paper underlines the critical role of income distribution in financial liberalisations and contributes to the existing literature by linking income distribution to the financial liberalisation process.

The study by Cengiz and Demir (2023) focuses on the issue of rising income inequality, which has been widely researched since the

1980s. Although numerous studies have explored the trend of increasing income inequality, this study particularly highlights the contribution of economic globalisation, especially within the framework of international trade and financial liberalisation. The study carries out an empirical analysis spanning the period from 1987 to 2019 and focuses on the MIST nations (Mexico, Indonesia, South Korea, and Turkey). Employing panel data analysis, the study explores the influence of trade and financial openness, representing various dimensions of economic globalisation, on income inequality. The findings highlight that financial and trade openness have aided in reducing income inequality in MIST nations during the period under analysis. Specifically, financial openness has had a more substantial impact. The study's notable contribution is refuting the notion that financial openness influences income inequality through per capita income growth rate. The findings align with the Stolper-Samuelson theorem, indicating that trade openness mitigates income inequality, and corroborate Levine's emphasis on the role of finance in addressing income inequality.

4. Methodology

This section of the study analyses the model developed and presents the findings. Panel data analysis was chosen as the research method. The choice of panel data analysis was motivated by its ability to provide more meaningful results by controlling for heterogeneity. This method allows for a comprehensive examination of the data, taking into account both cross-sectional and time-series variations, thereby increasing the robustness and reliability of the findings.

The analysis focuses on the impact of financial liberalisation on income distribution in the G7 countries after the 2008 crisis. The Gini index obtained from the SWIID database developed by Solt (2020) is used as an independent variable. The independent variables used in the analysis include logarithmic gross domestic product per capita (LNGDP), credit volume (credit), capital openness index (SAE) and population (POP). Data on GDP per capita and population are taken from the World Bank database, data on capital openness index from the IMF database and data on credit from the BIS data portal. The data analysed cover the period between 2003 and 2013. The reason for using this period range is that the capital openness index (SAE) data provided by the IMF cover only this period. Detailed information on the data is provided in Table 1.

Table 1
Data Descriptions and Abbreviation

Variable	Description	Source	Abbreviation
Gini Index	Measure of income inequality	SWIID Database (Solt, 2020)	lngini
Logarithmic GDP Per Capita	Measure of economic output (logged)	World Bank DataBank	lngdp
Credit Volume	Credit to the non-financial sector	BIS Data Portal	credit
Capital Openness Index	Measure of openness to capital inflows	IMF Database	sae
Population	Total population	World Bank DataBank	pop

5. Results

The research used a panel regression model to analyse the data. Within this framework, various tests were carried out and the results were analysed sequentially. The results obtained were analysed and interpreted in order to draw conclusions about the impact of financial liberalisation on income distribution in the G7 countries.

The research uses a panel regression model to analyse the data. Panel data analysis provides a comprehensive examination of the

relationship between variables by allowing the study of both cross-sectional and time-series variation in the data. This analytical framework allows for a more robust analysis by addressing the variability observed across multiple cross-sections and over time, as opposed to focusing solely on the variability observed within a single cross-section.

In addition, panel data analysis is more effective than other analytical methods because of its ability to control for heterogeneity across observations. This method allows us to obtain generalisable results by taking into account variations between individual units. Therefore, the reason for choosing panel data analysis in this study

is to increase the reliability of the econometric model by providing a comprehensive perspective that includes both temporal and spatial variability. Summary data related to the analysis are presented in the Table 2 below

Table 2
Summary Statistics

Variation	Mean	Std. Dev.	Skewness	Kurtosis	min	max	obs
lngini	3.462	0.088	0.633	2.937	3.295	3.650	77
lngdp	10.613	0.154	-0.365	2.626	10.222	10.883	77
lncredit	29.153	0.952	1.070	3.104	27.811	31.351	77
sae	0.876	0.056	0.002	2.278	0.79	1	77
pop	1.04e+08	8.62e+07	1.667	4.309	3.16e+07	3.16e+08	77

$$gini_{it} = \alpha_0 - \alpha_1 lngdp_{it} - \alpha_2 sae_{it} + \alpha_3 credit_{it} - \alpha_4 pop_{it} + u_{it}$$

The study carried out several tests to ensure the validity of the panel regression model and to analyse the results accordingly. The tests carried out and their results are presented in various tables for reference.

Table 3 presents the results of LR (Likelihood Ratio), Breusch and Pagan, Score and F tests to examine the presence of unit and time effects in the model. These tests help to determine the significance of unit and time effects on the variables and their impact on the dependent variable.

Table 4 presents the results of the Hausman (1978) model test. This test evaluates the relationship between the two estimation methods used in the econometric analysis (fixed effects and random effects) and helps to assess the appropriateness of this method specification and to determine the appropriate estimation approach.

Table 5 presents the results of the Wald test proposed by Greene (2000) to test for heteroskedasticity in the fixed effects model. This test assesses whether there is a systematic difference in the variability of the residuals and provides insight into the presence of heteroscedasticity in the model.

Table 6 presents the results of the autocorrelation tests developed by Durbin and Watson (1971), Baltagi and Li (1991) to examine the presence of autocorrelation in the fixed effects model. These tests assess the serial correlation of the residuals and provide insight into potential autocorrelation problems.

Table 7 analyses the presence of inter-unit correlation in the model. The Breusch-Pagan Lagrange Multiplier Test was used in the analysis. The purpose of this test is to assess the correlation between units and its effect on the model.

Finally, Table 8 shows that the model has been corrected for errors in autocorrelation, heteroskedasticity and inter-unit correlation using the Driscoll-Kraay test. The purpose of this test is to correct for potential problems in the estimation of the model and to ensure the validity of the final results.

A panel regression model is used to examine the relationship between financial liberalisation and income distribution. This method increases the strength and reliability of the model. In this context, statistical tests are applied and the results are presented in tables. The results of this analysis can be summarised as follows.

Table 3
Unit Root Test Results

	LR (Likelihood-ratio Test)	LM (Breusch-Pagan Test)	F Test	Score Test
Model Prob.	0.000		0.000	
Test Prob.	0.000	0.000	0.000	0.000
rho	0.929	0.944	0.995	

Note: Significance levels were considered at %

The results of each test model showed statistical significance. The F, LR, LM and Score tests designed to assess the existence of a unit effect rejected the null hypothesis (Ho) and provided evidence for the existence of a unit effect. In addition, rho values close to 1 also

strengthened the existence of a unit effect. Having established the existence of a unit effect, a Hausman test is performed on the model to determine whether the model should be considered a fixed effects model or a random effects model.

Table 4
Hausman Test Results

	Fixed Effect	Random Effect
<i>lngdp</i>	-0.068	-0.070
<i>lncredit</i>	0.083	0.080
<i>sae</i>	-0.139	-0.084
<i>pop</i>	-2.62e-09	-5.29e-10
<i>prob.</i>	0.003	
<i>chiz</i>	13.42	

Note: Significance levels were considered at %1

Based on the test results, the null hypothesis (Ho) is rejected, indicating that the model should be treated as a fixed effects model. Additional tests are then carried out to examine autocorrelation, heteroskedasticity and inter-unit correlation within this fixed effects framework.

Table 5
Heteroscedasticity Test Results

	Wald
<i>prob.</i>	0.000
<i>chiz</i>	55.19

Note: Significance levels were considered at %1.

Based on the test results, the null hypothesis (Ho) was rejected at the 95% significance level, indicating the presence of heteroscedasticity in the fixed effects model. This means that the assumption of homoscedasticity is violated and the presence of heteroscedasticity must be taken into account when interpreting the results of the model.

Table 6
Autocorrelation Test Results

	Autocorrelation
F prob.	0.000
Durbin-Watson	0.392
Baltagi- Wu	0.739

Note: Significance levels were considered at %1.

Based on the test results, the research model is statistically significant, indicating that the variables included in the model have

Table 8
Driscoll-Kraay Test Result

Variables	Coefficient	Driscoll-Kraay Std. Errors	P> t
<i>lngdp</i>	-0.0681076	0.0299719	0.046**
<i>lncredit</i>	0.0836372	0.0082878	0.00***
<i>sae</i>	-0.1396476	0.0740105	0.089*
<i>pop</i>	-2.62e-09	4.19e-10	0.00***
<i>cons</i>	2.143538	0.2432249	0.00
R-squared	0.371		
Prob	0.000		
obs number	77		

Note: Panel data analysis was conducted with the fixed effects model. Significance levels are *** 1%, ** 5%, * 10%.

a significant relationship with the outcome variable. In addition, the presence of first order autocorrelation is detected in the fixed effects model, as indicated by test statistics such as Durbin-Watson (DW) and Baltagi Wu. Test statistics below 2 indicate the presence of positive autocorrelation, meaning that the error terms in the model are correlated across time periods. This autocorrelation should be taken into account when interpreting the results and addressing the limitations of the model.

Table 7
Breusch and Pagan LM Test

	LM
<i>Chi2</i>	52.111
<i>prob</i>	0.000

Note: Significance levels were considered at %1.

Final, the Breusch and Pagan (1980) LM test was implemented to assess existing correlation between the units. The results of this test indicate that there is a correlation between the units as Ho was rejected at a 95% significance level.

The analysis was systematically carried out using a specific methodology. The test results showed the presence of the unit effect and fixed effects within the model. Further tests were performed to assess the assumptions of the regression model and determine its reliability. The Driscoll and Kraay (1998) correction test was utilised in this framework to address the issues of autocorrelation, heteroskedasticity and inter-unit correlation identified in the model. The aim was to improve the validity of the analysis and achieve more reliable results. Table 8 displays the results of this test

Based on the Driscoll - Kraay estimator test, the model demonstrates an overall significance level of 95%. This implies that the independent variables collectively possess a strong impact on explaining the dependent variable.

The model's independent variables account for 37% of the variance in the dependent variable. In essence, the independent variables explain a noteworthy portion of the dependent variable's variation.

According to Driscoll-Kraay Test, the rho value in the model indicates that the variance in the unit accounts for almost 99% of the total variance. This suggests that a significant share of the variability in the model can be connected to factors that are specific to the unit.

When each variable value is analysed individually, it becomes evident that $\ln gdp$, $\ln credit$, sae , pop and $cons$ hold significance in the model 90% level. This infers that each variable contributes meaningfully to the explanation of the dependent variable and improves the model's overall explanatory power.

These results offer substantial evidence for the correlation between financial liberalisation and income distribution. This emphasises the relevance of independent variables when studying income inequality in the given context.

6. Model Results

$$gini_{it} = 2.143 - 0.068 \ln gdp_{it} + 0.083 \ln credit_{it} - 0.139 sae_{it} - 2.62e-09 pop_{it} + u_{it}$$

This study aims to examine the relationship between financial liberalisation and income inequality in G-7 countries between 2003 and 2013. The model uses four different independent variables. The first one uses the logarithmic transformation of Gross Domestic Product (GDP) per capita. The second one investigates the Capital Openness Index, which serves as an indicator of the degree of financial liberalisation. The third variable is the logarithmically transformed volume of credit. Finally, the population variable is considered. The impact of each variable on income inequality is analysed.

The study results indicate that a 1% rise in GDP per capita results in a 6% reduction in income inequality. Financial liberalisation, as measured by a 1 unit increase in the capital openness index, results in a 13% reduction in income inequality. On the other hand, an increase of 1% in credit volume was found to lead to an 8% rise in income inequality. Moreover, the study observes that an increase of 1 unit in the population of the relevant countries reduces income inequality by 0.00000262.

Based on the findings, it is concluded that financial liberalisation has a positive impact on income distribution in economically developed nations. Additionally, it is observed that a stable economic structure, high education levels, and financial literacy reduce income inequality as GDP per capita increases. Conversely, the expansion of credit volume increases inequality for those who have credit access. Furthermore, a decrease in income inequality by 2 per million is linked to population growth.

7. Conclusion

After the Great Depression, economies that had embraced the Keynesian perspective for a long time started facing downturns in the 1980s. Throughout this era, the concept of liberalization backed by McKinnon and Shaw gained prevalence. Financial liberalisation resulting from these developments has been argued by some to play a crucial role in economic development, potentially impacting various aspects positively, including quality of life, economic growth,

resource allocation, and productivity. Nevertheless, there is a conflicting view that financial liberalisation may worsen income inequality and lead to higher poverty rates.

According to conventional wisdom, the quality of institutions is crucial in limiting the detrimental impact of financial liberalisation. Robust and suitably planned measures can assist nations in preventing the unfavourable repercussions of macroeconomic instability and financial crises, thus positively altering the outcomes of liberalisation. Some argue that complete financial liberalisation could diminish income disparity. The study's results endorse traditional beliefs and indicate equivalent findings.

The findings of the study provide valuable insights into income distribution trends in G-7 nations. Economic factors, specifically a 1% rise in GDP per capita, significantly contribute to a 6% reduction in income inequality, underscoring the beneficial effects of economic growth in promoting equitable income distribution. Furthermore, the study highlights a significant correlation between financial liberalisation and income inequality. Specifically, a 1-unit rise in the capital openness index results in a noteworthy 13% reduction in income inequality. However, it is crucial to exercise caution in the expansion of credit volume, as a 1% increase is associated with an 8% surge in income inequality. The study's findings indicate that a mere 1-unit increase in population has a statistically significant, albeit minimal, impact on reducing income inequality, resulting in a decrease of 0.00000262. The conclusion advocates for a balanced policy approach, which includes promoting inclusive economic growth and prudent credit expansion, carefully implementing financial liberalization, and considering demographic factors to achieve more equitable income distribution in G-7 countries.

The findings provide policy recommendations to address the complex relationships between economic variables, financial liberalisation and income inequality in G-7 countries. Policy makers should prioritise initiatives that promote inclusive economic growth. This is because an increase in GDP per capita has been found to lead to a significant reduction in income inequality. In this context, broad-based economic expansion requires investment in education, skills development and innovation. Balancing financial liberalisation is crucial and policy makers should take measures to prevent wealth concentration and ensure fair access to financial resources, and in this context, prudent credit expansion. This is because an unbalanced increase in credit volume has a negative impact on income inequality. Moreover, demographic considerations should be aligned with economic opportunities and investments should be made in education and labour force development. In sum, this study advocates inclusive economic growth, balanced financial liberalisation, prudent credit expansion and a policy-making approach in line with these frameworks to promote fair income distribution in G-7 countries.

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