Financial Market Liberalization in Transition Economies: Implications for Income Inequality in South Eastern Europe

Master Thesis Presented to the
Department of Economics at the
Rheinische Friedrich-Wilhelms-Universität Bonn

In Partial Fulfillment of the Requirements for the Degree of
Master of Science (M.Sc.)

Supervisor: Prof. Dr. Keith Kuester

Submitted in April 2024 by:
Haris Rizvanski
Matriculation Number: 3290832

Contents

List of Tables

List of Figures

1 Introduction

The phenomenon of income inequality is referred to as one of the main challenges in the world today (Kaplan 2013). It has taken central place in numerous important debates and represents a topic that is highly scrutinized by renowned scholars, policy makers, and politicians. There is a general concern that economic growth benefits only certain groups of people and as a result societies are becoming less egalitarian. Many questions emerge with this concern, trying to identify the motives behind these groups and assessing the extent to which the rest of the society can gain value from their decisions (Stiglitz 2012). As the concepts of neoliberalism and economism become prevalent in economic thought, income inequality was being depicted as an inevitable outcome and a necessary component of economic systems that provide the greatest good to the greatest number (Kwak 2018). During the same time period, together with the Fall of the Berlin Wall in 1989, many of the governments in South Eastern Europe put an end to communism and started adopting liberal democratic models. This trend of increasing income inequality, as stated by the OECD report: "Growing Unequal? Income Distribution and Poverty in OECD Countries" (Sarfati 2009), was also present in these transitional economies.

Various factors are being considered as the cause for this trend. Some of them include trade (Meschi and Vivarelli 2009), skill-biased technological change (Johnson and Acemoglu 2023), and rent-seeking activities (Stiglitz 2012). Others refer to the historical fact that hereditary extractive institutions from centrally planned systems are known to entrap transitional countries in vicious cycles of non-sustainable growth, where only a selected few reap the rewards (Acemoglu and Robinson 2013). Another equally important attributed factor that has recently received a lot of attention is financial liberalization (Arestis and Caner 2005). Financial liberalization is known as the process of removing or easing restrictions in the financial markets, encouraging greater participation, integration and competition within the financial system. Although the initial efforts for implementing this process were heavily interrupted by regional ethnic clashes and wars amongst the former constituent republics of the Socialist Federal Republic of Yugoslavia, financial markets in South Eastern Europe gradually became more competitive and facilitated the entry of many foreign financial institutions (Ganić 2021). Consequently, the whole region experienced expansion of private credit and innovation in financial instruments and techniques (Hoti and Dermaku 2012).

Financial liberalization is known to have ambiguous effects on income inequality. Some researchers argue that removal and ease of regulation within the financial markets can improve the distribution of income (Agnello et al. 2012; Delis et al. 2014), while others present evidence suggesting the contrary effects (De Haan and Sturm 2017; Zehri 2019). Moreover, these studies predominantly concentrate on long time periods and simultaneously include many countries belonging to different regions of the world. They lack the specificity of testing this relationship within a certain geographical area. Such precision is important because some regions can differ from others in many aspects. The

South Eastern European region exhibits distinct characteristics in both the structure of its financial markets and the prevalent political systems. To isolate the effect from other regions, this thesis complements the existing empirical literature by answering the following question: How does the process of financial liberalization affect income inequality in the transitional economies of South Eastern Europe?

Although at a different pace, all of the countries in this region experienced a major shift from centrally-planned to market-based economies in the early 1990s. When entering this transition process, the countries had structurally unbalanced financial systems in favor of the commercial banking sector. The sole component of the non-banking sector was the insurance industry, while capital markets and international capital flows were non-existent (Ganić 2021). Despite having a similar starting point, the countries started to diverge in their approaches towards restructuring the banking sectors and developing other components of their financial systems. This divergence mainly transpired due to occurrence of unfortunate armed conflicts and differences in advancements of the euro-atlantic integrations (Uvalic et al. 2011). Therefore, this study not only captures the transformation from the common pre-transitional inheritance of bank-based financial systems but also explores the variation among the countries in the developments of their financial markets after the adoption of the neoliberal models. For this purpose, separate variables measuring financial liberalization and financial development are introduced to assess the impact on income inequality.

Another significant event that profoundly influenced the financial liberalization process in South Eastern Europe was the global financial crisis. In contrast to other regions worldwide, the effects of the global financial crisis in the real economies were mainly transmitted by limiting the inward capital flows (Ćurak 2012). The financial liberalization induced lending-consumption-investment boom experienced in the early 2000s came to a halt (Bartlett and Prica 2011). Countries with more integrated financial systems in the region found themselves disproportionately exposed to the repercussions of the financial crisis (Uvalic et al. 2011). Therefore, it is crucial to comprehend how the financial liberalization process affected income distribution within South Eastern European countries in the periods preceding, during, and following the global financial crisis. This study addresses a gap in the existing literature by incorporating variables that examine the temporal aspects of the financial liberalization process and discern its effects on income inequality across these three periods.

Using a country fixed-effects dynamic panel data model, the empirical analysis reveal a positive association between the financial liberalization process and the trend of increasing income inequality within the transition economies of South Eastern Europe. Positive effects are detected across various measures for income inequality, including the

Gini coefficients, as well as the s80/s20 and Palma ratios.[1] These variables account for the effects of financial liberalization on both the middle and the very extremes of the income distribution, providing a better understanding on which percentiles are more affected.[2] On average, each additional unit in the financial liberalization index corresponds to increases in the Gini coefficient by 0.52, the s80/s20 ratio by 0.286, and the Palma ratio by 0.31. Furthermore, by assessing the dependance of financial liberalization on financial development, this study suggests that financial liberalization is inclined to reduce income inequality in countries with higher financial depth, aligning with the theoretical framework from Bumann and Lensink (2016). Finally, the results show that financial liberalization is likely to exacerbate income inequality in the periods before and during the global financial crisis. Other things being equal, an additional unit in the financial liberalization index led to an increase of the Gini coefficient by 1.347 before, and 0.276 during the global financial crisis.

The remainder of the paper has the following structure. Section 2 discusses related literature review. Section 3 briefly summarizes the respective countries' closely related historical development paths. Section 4 describes the financial liberalization process for the countries belonging to the South Eastern European region. Section 5 explains the data and Section 6 talks about the empirical approach. Section 7 presents the results, while Section 8 brings together the conclusions.

2 Literature Review

The intricate relationship between financial liberalization and income inequality has been extensively explored in the existing body of literature. This exploration includes both theoretical frameworks and empirical investigations, shedding light on the multifaceted dimensions of this complex interaction. The following categorization provides an overview of contributions in theory and empirical studies.

2.1 Theory

There are a handful of theoretical models that are considered to be the most relevant when trying to establish the direct link between financial liberalization and income inequality. Bumann and Lensink (2016) argue that the impact of financial liberalization on income inequality is dependent on financial development. Entrance of foreign capital in countries with high financial depth would lead to lower income inequality as a result of enhanced banking efficiency and higher income for bank savers through increased deposit interest

[1] Gini coefficients in this study take values between 0 and 100. The s80/s20 measure is a ratio of total income received by the top 80% to the total income received by the bottom 20%, whereas the Palma measure is a ratio of income received by the top 10% to the bottom 40%. See Section 5.1 for more details on how the dependent variables are constructed.

[2] The degree to which the financial system is liberalized is measured by an index that depicts economic freedom in four separate areas with values ranging from 0 to 10. See Section 5.2 for more details.

rates. Furthermore, the theoretical model proposed by Banerjee and Newman (1993) underscores the pivotal role of the development of capital markets when determining income distribution. Imperfections in these markets and their underdevelopment constrains occupational choices that could generate more income. This creates a poverty trap and forces poor individuals to stay subservient to the wealthy, consequently exacerbating income inequality. Kose et al. (2009) explore whether financial globalization fosters risk sharing and consumption smoothing. With advanced economies being the main beneficiaries of their hypothesis, they state that financial globalization generates welfare gains by reducing volatility of aggregate consumption and fluctuations in generated output. Rajan and Zingales (2003) provide theory behind incumbent entities and their role as impediments to the capital allocation properties of the financial markets. They argue that financial liberalization enables the entry of new actors in the financial markets, improving the allocation of capital across a broader spectrum of potential borrowers and, thus, reducing overall income inequality. Abiad, Oomes, et al. (2008) also emphasize the role of capital allocation in financial liberalization when determining its impact on income inequality. Using a general equilibrium model, the authors show that variation of expected returns across firms, when measured by Tobin's Q, is reduced vis-à-vis improved credit access. Mainly focusing on banking deregulation, Delis et al. (2014) brings forward theoretical arguments in relation to capital requirements, prudential bank supervision, abolition of interest rates, privatization of banks, and liberalization of capital accounts and securities markets. According to the authors, each of these deregulation policies could bring positive outcomes and improve the allocation of income across individuals.

The majority of the studies on this topic branch out into several sub-areas and explain different mechanisms through which financial liberalization affects income inequality. One of the most discussed mechanisms is the overall development of the financial markets. The extensive theoretical literature on the relationship between financial development and income inequality brings mixed findings (Demirgüç-Kunt and Levine 2009). One strand of the theoretical literature suggests that financial development worsens income inequality and benefits the wealthy. For instance, Greenwood and Jovanovic (1990) argue that financial development serves as an intermediary between growth and inequality. According to their model, subsequently with financial development (improved financial access), both economic growth and income inequality increase. Then, there is a fraction of the literature predicting that financial development improves the distribution of income and reduces income inequality (Galor and Moav 2004; Galor and Zeira 1993). The theoretical model from Claessens and Perotti (2007) is illustrative, showing that financial development improves the efficiency of capital allocation, accelerates growth, and relaxes the credit constraints which inevitably helps the poor.

Another mechanism through which financial liberalization affects income inequality is increased financial fragility and volatility. The latter places special emphasis on financial crises as the cause and effect of income inequality. Linkage between financial lib-

eralization and financial crises is established by the theoretical models of Grabel (1995), McKinnon and Pill (1997), and Arestis and Glickman (2002). Then, financial crises can lead to increased income inequality by affecting the poor through worse macroeconomic outcomes (Baldacci et al. 2004; Ferreira et al. 1999; Lustig et al. 2000) and as a result of macroeconomic effects caused by inappropriate political responses in the aftermath of financial crises (Bordo and Meissner 2015; Reinhart and Rogoff 2009; Rosas 2006). Theoretical models that use income inequality as the cause for financial crises are for instance shown in the works by Schularick and Taylor (2012) and Kumhof et al. (2015), who argue that financial crises are preceded by consumption growth and credit booms.

2.2 Empirical Literature

Despite mixed findings, empirical research has contributed valuable insights on the relationship between financial liberalization and income inequality. On one hand, some empirical literature suggests that financial liberalization increases income inequality. Using panel data from 121 countries for the years 1975-2005, De Haan and Sturm (2017) confirm this view but also find contradictory evidence regarding the dependance of financial liberalization on financial development, as suggested by the theoretical model of Bumann and Lensink (2016). In his study covering 162 countries over the period 1980-2015, Zehri (2019) argues that financial liberalization tends to exacerbate income inequality, with its impact being conditioned by the income levels of the countries taken under consideration. Focusing on the broader context of removing restrictions on capital accounts in 28 European countries, Radhianshah and Kurnia (2021) find a positive correlation between capital account liberalization and income inequality. Moreover, they show that institutional quality is a crucial factor for determining this relationship. Using panel studies, Furceri and Loungani (2018) and Li and Su (2021) corroborate the notion that capital account openness, a key aspect of financial liberalization, exacerbates income inequality. On the other hand, some empirical studies predict that financial liberalization improves the distribution of income and reduces income inequality. For instance, Agnello et al. (2012) examine changes in financial markets policies and find that the removal of barriers in the securities market, expansion of directed credit, and reduction of high reserve requirements lead to reduced income inequality. Delis et al. (2014) provide empirical evidence for decreasing income inequality due to overall financial liberalization of the banking sectors, emphasizing the strong significant effects of liberalization policies towards credit and interest rate controls. In their comprehensive meta-analysis of 23 cross-country studies, Ni and Liu (2019) once again confirm that financial liberalization improves the income distribution and reduces income inequality.

Similarly, there are contradicting empirical results for the relationship between financial development and income inequality (Chletsos and Sintos 2023). One fraction of researchers, while using private credit to GDP (Clarke et al. 2006), access to financial institutions (Naceur 2016), and financial institution indices (Ewa 2020) as measurements

for financial development find that the overall development of the financial system reduces income inequality. Beck (2007) confirms this view and finds that the development of financial intermediaries reduces poverty by improving the income status of the poor. Some argue that this negative effect of financial development on income inequality is only up until certain thresholds of GDP and then in fact contributes to higher income inequality (Benczúr and Kvedaras 2021). While others state that greater financial development widens the distribution of income and increases income inequality (Denk and Cournède 2015; Jauch and Watzka 2016), confirming the aforementioned theoretical model from Greenwood and Jovanovic (1990).

Following the global financial crisis, numerous researchers have shifted their focus to investigate the repercussions of the crisis on income distribution. The majority of these studies find that the global financial crisis has increased income inequality. In a UNICEF review of 141 countries, Ortiz and Cummins (2011) came to the conclusion that income inequality is likely to increase after the global financial crisis due to the negative trends in employment, increased food and fuel prices, and retracted government expenditures. Using binary logistic regressions to determine whether individuals belong to a certain income region in Germany, Faik (2012) finds that unemployed individuals are more likely to be located in low-income regions during the global financial crisis, and that income inequality increased in the period following the crisis. Furthermore, George et al. (2015) investigate the case of Greece and reiterate the negative distributional effects on income stemming from fluctuations in employment and fiscal measures. Sefil Tansever (2017) shows that the downward income inequality trend in Turkey was disrupted by the global financial crisis. In a study covering 141 countries, Shchepeleva et al. (2022) focus on wealth inequality and provide evidence for a significant increase in income inequality following the global financial crisis. However, the increase in their study is conditioned by the initial levels of wealth inequality, and economic and financial development.

3 Historical Development of South Eastern Europe

The countries of South Eastern Europe share a common historical trajectory marked by similar transitions from Ottoman rule to periods of communism and ultimately the establishment of liberal democracies. This shared historical background has shaped the sociopolitical landscape of these countries, influencing their economic structures and policy frameworks. Therefore, before delving into the complexities of the financial liberalization process, it is useful to understand how this intertwined history laid the groundwork for the establishment of subsequent economic and financial systems in this region.

South Eastern Europe is characterized by many historical complexities, filled with long periods of ethnic hatred, religious intolerance, political polarization, and clashing geopolitical interests. With the Balkan Peninsula located in its heart - one of the biggest and most important geographical pathways between Europe and Asia, this region

is known to have always been a target for conquests from different civilizations, empires, and regional powers. This complex past as a result contains countless wars, ethnic conflicts, and several transitions between political systems. In fact, the term “Balkanization” originates from the name of the Balkan Peninsula and refers to the process of fragmentation of an area into multiple smaller and hostile units (Rizova 2007). A term that captures the essence of more recent developments, specifically during the time when the Ottoman Empire started to lose its hold over the territories in this part of the world. Following the Balkan Wars (1912-1913) and First World War (1914-1918), the Ottoman Empire found itself on the losing side, which led to its disintegration. Simultaneously, inspired by aspirations for independence, newly formed countries started to emerge.

Guided by the principles of national unity among the South Slavs, the Kingdom of Serbs, Croats, and Slovenes was established in December 1918. The constitutional structure of this kingdom provided a transitional mechanism from tribal separateness to a unified state, where the formation of Yugoslav identity initially took place (Jović 2009). However, the ethnic and religious differences within its borders made this state appear as undoubtedly the most diverse and complicated in Europe (Calic and Geyer 2019). Among the South Slavs, there were also Montenegrins, Bosnian Muslims, and Macedonians. As well as non-slav speaking minorities, including Agyars, Germans, Romanians, Albanians, Turks, Vlachs, gypsies, and Italians (Singleton 1981). Internal struggles for power and control over institutions forced King Alexander I to suspend the parliament and establish the "January 6 Dictatorship".[3] The official name of the state changed to the kingdom of "Yugoslavia”, which later became known as the name for the socialist state on the respective territories. National resistance against Nazi occupation during World War II (1939-1945) gave birth to the Anti-Fascist Council for the National Liberation of Yugoslavia (AVNOJ).[4] This movement led to the successful liberation of Yugoslavia and subsequently served as the foundation for creating the Socialist Federal Republic of Yugoslavia (SFRY) in 1945.[5] It included six constituent republics: Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, and Slovenia.

South-west from the territories of former Yugoslavia lies Albania, another South Eastern European country that followed a similar historical and political system transition path. Together with the end of five centuries long-lasting Ottoman feudal servitude came the first efforts for national independence (Frashëri 1964). Although faced with lack of support in the international arena and expansionary territorial ideologies from its neighbors, the successful Albanian revolt led to proclamation of independence by Ismail Qemali in 1912.[6] These initial efforts for self-governance were short-lived and the territory of Albania was once again occupied during World War I (1914-1918) and World War II (1939-1945). Similarly to what happened in SFRY, the resistance against the Axis al-

[3]The dictatorship was established on 6 January 1929.

[4]Signed in Bihac under the leadership of Josip Broz Tito in 1942 (Wilson 1980).

[5]This republic was governed by the League of Communists of Yugoslavia.

[6]The state was official recognition by the Conference of London in 1913.

liance successfully overthrew their political enemies, liberated Albania from the Hitlerate invaders, and managed to establish the "People's Republic of Albania" in 1945.[7] In the following years, the communist ideology dominated the governance model of the country.

On the eastern front of the Balkan Peninsula are located Bulgaria and Romania. The end of the Ottoman subjugation in this part of the Balkans came after the Russo-Turkish Wars (1877-1878). Following the Treaty of Berlin (1878), both Bulgaria and Romania gained independence. Their long and intertwined history is an excellent example of the forever-present complexities in this region (Chary 2011). From being enemies in the Second Balkan War (1913), First World War (1914-1918), and Second World War (1939-1945) to being allies and sharing similar ideals under the doctrine of communism. In the aftermath of the struggle against Nazi occupiers, the direct presence of the Soviet Union played a pivotal role in shaping the political systems of these countries. Shortly after the successful liberalization missions by the Red Army on these territories, communist parties emerged, leading to the establishment of new independent communist states under the names of "People's Republic of Bulgaria" (1946) and "People's Republic of Romania" (1947). In a similar fashion as the above mentioned South Eastern European countries, communism was the main ideology that prevailed until the Revolutions of 1989 (Gehler et al. 2019).

A wave of liberal democratic movements in what was known as the Autumn of Nations covered the streets of several communist countries in the Eastern Bloc. People started to protest against totalitarianism and cheered for liberal democracy. These massive demonstrations ended with the symbolic fall of the so-called iron curtain, namely the Berlin Wall in November 1989. Border that kept the doctrine of communism safe in South Eastern Europe. The collapse of the old system planted the seeds for newly elected democratic governments with reoriented foreign policies towards the West (Mason 1992). Dissolution of SFRY followed soon after and Croatia (1991), Slovenia (1991), Macedonia (1991),[8] and Bosnia and Herzegovina (1992) declared secession and independence. Serbia and Montenegro stayed unified as one republic under the names of "Federal Republic of Yugoslavia" (until 2003) and "Serbia and Montenegro" (until 2006), but then became fully independent. Kosovo later separated from Serbia and declared independence in 2008.[9] Shift from one-party system to political pluralism set the floor for the Democratic Party to win the elections in March 1992 and put an end to communism in Albania. Following the deposition of the communist leader Todor Zhivkov, the first multi-party elections were held in Bulgaria, where the seventh Grand National Assembly changed the name and removed the communist emblem from the flag of this country, putting an official end to the communist ideology in 1990. Social unrest against the communist regime in Romania ended with the infamous coup and public execution of the president Nicolae

[7] This resistance was led by the National Liberation Movement (NLM), which was dominated by communist groups under the leadership of Enver Hoxha (Vickers 2011).

[8] Macedonia changed its name to North Macedonia with the Prespa Agreement in 2018.

[9] It is important to note that some countries do not recognize Kosovo as an independent country today.

Ceaușescu and his wife Elena Ceaușescu in 1989, which led to the abolishment of the Marxist-Lennist based government.

All of these events brought an inevitable end to the dominance of the communist ideology. The triumph of liberal democracy over nationalism, totalitarianism and imperialism was widely celebrated. This opened up the doors for fundamental transformation of the social and economic systems in this part of Europe (Mason 1992). As the Marxist model of centrally planned economy faded away, market-based economies coupled together with independent institutions that would guarantee the rule of law emerged. In many well-renowned media outlets, including the Wall Street Journal, the golden era of capitalism was being depicted as a way forward for all transitional countries (Meštrović et al. 1993).

The initial stages of this transitional process from centrally planned to market based economies was disrupted by an unfortunate period of ethnic clashes and wars between the former constituent republics of SFRY. Offensive political rhetoric from the government of Slobodan Milosevic in Serbia and their unwillingness to accept the disintegration of the Yugoslav union caused raging wars in Slovenia (1991), Croatia (1991-1995), Bosnia and Herzegovina (1992 - 1995), and Kosovo (1998-1999). Furthermore, a military offensive to secure the political rights of the Albanian minority in North Macedonia resulted in an armed conflict in 2001.[10] As a result, the entire region experienced severe economic crises with sharp declines in production, consumption, and standards of living. Some of these countries experienced persistently high rates of unemployment, long-term unemployment and youth unemployment. Additionally, there was hyperinflation with rates matching the highest in world history (Uvalic et al. 2011). This left the economies vulnerable with unbalanced current accounts and high dependence on foreign capital, both in terms of investments and assistance from the international community. As a matter of fact, most of the countries just recently managed to reach their pre-transitional levels of GDP.[11]

The political climate in this region showed significant signs of improvements primarily after the conclusion of the Kosovo war.[12] In parallel with this political embetterment, the European Union considerably changed its approach towards integration of these countries within the union. The initial strategy of the so-called "Regional Approach" was replaced by a new concept,[13] which introduced more accessible and comprehensive Stabilisation and Association Agreements (SAA). Within twelve months of the introduction of SAP, the European Council officially recognized the Western Balkan countries as potential candidates (Pippan 2004).[14] This process was further strengthened by the Thessaloniki Summit in 2003 and North Macedonia (2005), Montenegro (2010), Serbia (2012),

[10] Led by the National Liberation Army (UÇK).

[11] Albania in 2000, Romania in 2002, Romania in 2002, Bulgaria and Croatia in 2005, Montenegro in 2008, North Macedonia in 2012, and Bosnia and Herzegovina in 2016 (Ganić 2021).

[12] Additional positive changes came after the death of President Tudjman in Croatia and the fall of the government led by Milosevic in Serbia (Uvalic et al. 2011).

[13] Namely, the Stabilisation and Association Process (SAP).

[14] The countries belonging to this region are: Albania, Bosnia and Herzegovina, North Macedonia, Montenegro, Kosovo, and Serbia.

Albania (2014), Kosovo (2016), and most recently Bosnia and Herzegovina (2022) were officially awarded candidate status. Among the former Yugoslav republics, Slovenia and Croatia became official EU members in 2004 and 2011, respectively. Meanwhile, Bulgaria and Romania applied for joining the EU in 1995 and became members with the fifth wave of enlargement in 2007.

Although experienced at a different pace, together with the prospect of the euro-atlantic integration came the first actual economic reforms for most of the countries. These reforms were in line with the guidelines from the Washington Consensus, that proposed strong focus on macroeconomic stability reforms, trade and capital account liberalization policies, and liberalization of domestic product and factor markets by privatization and deregulation.[15] Therefore, with the first set of reforms the countries focused on privatization, macroeconomic stabilization, trade, and liberalization of foreign investment. Parallel with these reforms, also came the second set of reforms, which were focused on creating independent judiciary institutions, harmonization of fiscal and monetary policies, improving the public sector and promotion of private-public partnerships, regulating labor markets, reducing the activities in the gray economy, and developing efficient financial systems (Ganić 2021).

4 Financial Liberalization of South Eastern Europe

One of the most important aspects in the transitional process from centrally planned economies is the development of a strong financial system. This is quintessential for a healthy market based economy (Exeter and Fries 1998). In order to achieve this goal, the governments started to liberalize their financial markets. Financial liberalization is best described as easing and removing restrictions on financial markets and institutions, encouraging greater participation, competition and flexibility within the financial system. Financial liberalization in this region stands as a pivotal component of the financial reforms witnessed over the past two decades (Ćurak 2012). This process enhances efficiency and overall financial development but at the same time may pose threat to the financial system due to increased volatility and higher exposure to external shocks.[16] Additionally, the liberalization strategies are harmonious with the EU accession criteria. Candidate countries have to fully liberalize their financial markets, as this is a crucial part of the founding EU principle - free movement of capital (Hoti and Dermaku 2012).

4.1 Banking Sector

Overall, the economies in South Eastern Europe have financial systems that are reliant on banks, a characteristic observed both prior and after the transitional period. This

[15] The Washington Consensus (1989) took central place in international development and became the primary approach for implementation of policy reforms (Gore 2000).

[16] Discussed in theory: Grabel (1995), McKinnon and Pill (1997), and Arestis and Glickman (2002).

can be seen from Table 1, which exhibits the dominance of the banking sectors within the financial systems between the years 2000 and 2016. Although this is a world phenomenon,[17] the second column shows that all of the financial system deposits are stored within banks. In the third column one can also see that banks are the main providers of private credit. Private credit takes various forms and includes personal loans, mortgages, business loans, and lines of credit. With the exception of Albania (98.18%), Bosnia and Herzegovina (92.12%), North Macedonia (99.65%), and Romania (92.18%), the rest of the countries have financial systems where the banking sector has a 100% share in issued private credit. In more developed financial systems outside of Europe where besides deposit money banks there are other private credit issuing financial institutions,[18] the respective shares of the banking sector in private credit to GDP are significantly lower.[19] The last column is another indication for the magnitude of the banking sector in the respective countries' financial systems relative to the overall economic output (GDP). For all of the countries this ratio is high, with Croatia being placed on top with 74.42%.

To give more context with regards to the structure of the financial systems within South Eastern Europe, Table 2 shows the difference between the banking and non-banking sector share in total financial system assets. The data for constructing this table was taken from the study of Ganić.[20] One can observe that in all of the financial systems in the region, the banking sector has substantially higher shares in total financial system assets, when compared with the non-banking sector. This once again confirms the dominance of the banking sector and the underdevelopment of the insurance and capital markets. These statistics also show that the share of the banking sector in total financial system assets is increasing over time. This is a result of the several reforms taken to ensure the stability and the confidence of the banking sector. For instance, when observing the years 2005 and 2016, the biggest increase is recorded for Albania (from 75.2% to 91.3%) and Bulgaria (from 64% to 82.93%). Alongside the entry of new private entities, several measures taken such as the introduction of the deposit insurance system in 2002, increased the confidence of the banking sector in Albania (Ganić 2021). On the other hand, with the establishment of the currency board in 1997, policy reforms for privatization and regulation of the banking sector were introduced, which ultimately led to restoring the confidence of the banking sector in Bulgaria (Bonin 2004).[21]

One country that distinguishes itself is Croatia, with its non-banking sector share in total financial system assets having 29.2% in 2016. This is due to the fact that Croatia has better developed insurance and capital markets, when compared to the other South Eastern European countries, a point discussed further down in this thesis. Another exception is

[17] See Table 9 for related statistics in countries belonging to different regions of the world.

[18] Some examples include credit unions, and savings and loan associations.

[19] For instance, in the United States of America (29.35%), Canada (76.33%), Saudi Arabia (68.12%), South Africa (49.53%) and Japan (63.53%). See Table 9 for more details.

[20] *Financial Globalization in the Emerging Balkans - Exploring Financial Trends on the Eve of EU Membership* (Ganić 2021).

[21] This board was established as a response to the financial distress in the banking sector and the failed recapitalization attempt from the government which led to currency crisis in the same year.

North Macedonia, with particularly high percentage of banking sector share assets in total financial system assets in 2005 (91%). The reasons for this are the early reforms taken with the introduction of banking supervision standards and the Law on Rehabilitation and Restructuring of Banks in 1995, focusing on writing off bad loans, resolving issues related to liabilities with old foreign currency savings, and reconstruction of the biggest state owned bank, Stopanska Banka AD-Skopje (Ganić 2021).[22]

Given the highlighted importance of the banking sector, it should not come as a surprise that the majority of the reforms in the financial system were directed towards the banking industry. Under the former communist regimes, the banks were state owned and often carried many non-performing loans (NPLs) on their balance sheets. Therefore, the first steps taken were structural and involved the creation of a two-tier banking system that separated commercial and retail activities from the portfolio of the mono-central banks (Bonin 2004). Moreover, great emphasis was placed on avoiding bank-runs by adopting several recapitalization measures and establishing liberal administrative structure for entrance of new private banks. Figure 1 illustrates this point and clearly depicts the decreasing share of assets held by the biggest banks in total commercial banking assets. This shows that the banking sector became more competitive and that new banks entered the markets at the beginning of the 21st century. One exception is Bosnia and Herzegovina, where the number of banks halved from 53 in 1998 to 32 in 2006 due to competition induced measures such as mergers and acquisitions, and consolidation of banks (Ganić 2021).

Together with these reforms, the governments applied macroeconomic stabilization measures, tightened up their monetary policies and introduced banking regulations as suggested by the Basel Committee on Bank Supervision (BIS). Among the first to adopt the Basel standards was North Macedonia, where right after its monetary independence in 1992 (Nenovski et al. 2012), these regulatory standards including minimal capital requirements and bank supervision measures were introduced in 1994.[23] Next was the government of Albania, which as a response to the economic collapse caused by the uncontrolled financial and speculative pyramid schemes in 1997, introduced these standards to strengthen the banking sector. Similarly, due to the insolvent banking system in Bulgaria and a total loss of this sector amounted to 15% of GDP in 1995, the banking supervision standards were adopted as responsive measures (Ganić 2021). Romania has also adopted the Basel I framework, which as a supervisory framework was initially introduced in 1988 (Miru et al. 2008). As a response to the recurring banking crisis in the period 1998-1999 and the failure of 14 banks, many of the standards recommended by the Basel Core Principles for Effective Banking Supervision (BCP) assessment were introduced in Croatia by a new banking law in 2002 (IMF 2004).[24] After completing a complete overhaul of the financial system, Serbia introduced the 2005 Law of Banks that harmonized the le-

[22] Law introduced with Official Gazette of the Republic of Macedonia" No. 14/95.

[23] See Gligorova (2022) for more details.

[24] The capital adequacy ratios were placed into force in 2004.

gal framework with banking supervision standards by the Basel Committee (IMF 2010). Last but not least, Montenegro implemented the capital adequacy regulations and adopted the Basel II standards in 2010 (IMF 2016). All of the countries have successfully implemented the Basel III standards today, which were introduced as a response to the global financial crisis in 2007 and 2008.

The policy agenda succeeded in stabilizing the banking industry. Privatization measures reduced the state ownership to less than 20%. These reforms created an opportunity for foreign banks to enter the markets (Hoti and Dermaku 2012). Motivated by much higher profitability margins, financial institutions from EU-15[25] countries became dominant figures in the banking sectors of South Eastern Europe (Cetkovic 2011). In order to investigate this claim, Table 3 shows profitability measures in the banking sector for several time periods in South Eastern Europe. From these time periods, it can be seen that the banking industry had the highest profitability margins in the year 2000. For instance, when comparing the net interest margin rates for the years 2000 and 2016, there is a significant difference for Albania (5.29% and 3.39%), Bosnia and Herzegovina (6.36% and 4.19%), Bulgaria (5.55% and 3.44%), Croatia (4.30% and 2.89%), Montenegro (5.68% in 2005 and 4.34%), and Romania (8.25% and 3.21%). The same can be seen from the average returns on equity, with the highest difference recorded for Albania (22.51% and 0.31%), Bulgaria (18.28% and 4.48%), and Croatia (12.90% and -3.46%). North Macedonia and Serbia distinguish themselves in terms of these measures in the year 2000 due to impacts of armed conflicts and imposed international economic sanctions.[26][27] Moreover, one can see a significant decrease in these measures following the global financial crisis in 2007-2008.[28]

On the other hand, the same profitability measures are much lower in the EU-15 countries, confirming the claim from Cetkovic (2011) that foreign banks from these countries saw a perfect opportunity to enter the markets and earn larger profits. The statistics are shown in Table 10. When looking at the average between the years 2000 and 2016, the interest rate margins are ranging from 0.74% to %2.59, the returns on assets from -1% to 0.654%, and the returns on equity from -7.38% to 10.64%.

Table 4 provides additional insights on the time periods related with the entry of foreign financial institutions in the respective countries' banking sectors. During the early phases of the transitional period in 1998, foreign bank ownership of banking sector assets is considerably lower in comparison to later years, such as 2016. This refers to the fact that the majority of the banks were still state owned. Once the privatization of this sector started, the ownership composition shifted towards foreign entities. When comparing

[25] EU members countries until the 2004 Enlargement.

[26] North Macedonia experienced elevated inflation rates and economic downturn due to the impact of the 2001 armed conflict.

[27] International sanctions imposed against Serbia after the Kosovo war (1998-1999) and the bombing by NATO left negative consequences on the Serbian economy, delaying the privatization and stabilization process of the banking sector. In fact, 65% of the banks were still state owned in 2001 (Cetkovic 2011).

[28] When comparing the years 2005 and 2010, one can see a decline in the ROA and ROE measurements for Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, and Romania.

these two time periods, exceptions can be noticed for Bulgaria (32.5% and 77%), Croatia (39.9% and 90.1%), and Romania (51.3% and 77%). Foreign ownership of banking sector assets for these countries in 1998 is considerably higher, when compared to the other countries of South Eastern Europe. By the year 2000, most of the banks in Bulgaria were foreign owned, resulting in overall 78% foreign bank ownership of assets.[29] Similarly, out of 33 banks operating in Romania, 23 were already foreign owned in the year 2000.[30] On the other hand, the legacy of Yugoslavia caused problems early on within the banking sector of Croatia and forced the newly elected government to undertake recapitalization measures.[31] Consequently, the banking sector got privatized and the majority of the assets were sold to foreign entities starting from the year 1998 (Bonin 2004).[32] Overall, when looking at the number of foreign owned banks, one can conclude that in all of the countries in South Eastern Europe there are more foreign than domestically owned banks. Today, the foreign banks are from countries such as: Germany, Austria, Italy, the Netherlands, Belgium, France, Turkey, Hungary, Slovenia, and Greece.

Foreign bank participation can lead to improved access to international financial markets, strict regulatory and supervisory frameworks of the domestic banking sector, higher quality loans, and innovation in financial instruments and techniques (Hoti and Dermaku 2012). Moreover, Cetkovic (2011) argues that the presence of foreign banks and the lucrative actions taken by their managers resulted in rapid expansion of private credit. Driven by high profit margins, foreign banks allocated capital in their subsidiaries and used it to issue loans. At the same time, managers earned huge bonuses by issuing loans and earning profits for the banks. Indeed, one can see from Figure 2 that starting from the year 2000, there is a massive expansion of private credit in South Eastern Europe.

At the beginning of the 21st century, Serbia, and Bosnia and Herzegovina first saw a decline in issued private credit. Serbia postponed the implementation of reforms in the financial sector until the government of Slobodan Milosevic was overthrown. The newly elected government adopted a banking restructuring strategy in 2001, closing down state owned banks, among which the biggest four were included: Beogradska Banka, Beobanka, Investbanka, and Jugobanka (Ganić 2021). These banks were known to control large parts of the assets within the financial system, which consequently led to lower amounts of private credit issued in the country. As seen in Table 4, the entrance of foreign

[29] In the aftermath of the 1997 currency crisis, United Bank of Bulgaria (UBB) and Bulbank were privatized and the majority of their assets were sold to Greek and Italian banks. From the largest banks, only State Savings Banks and Biochim Bank were not sold to foreigners.

[30] In 1995 the state owned foreign trade bank Bancorex and the agricultural bank Banca Agricola were in severe financial distress. To stop the potential threat of experiencing systematic crisis, stakes in these banks were sold to Societe Generale, GE Capital, and Banco Portugues de Investimento.

[31] After Croatia became independent, the National Bank of Yugoslavia (NBY) owned the majority of banking assets and liabilities, and created problems in the financial system by blocking accounts in these banks.

[32] The foreign ownership of the banking sector increased with the purchase of Slavonska Banka from KarnerLandesbank, Privredna Banka Zagreb from Banca Commerciale Italiana, Zagrebacka Banka from Bankers Trust Company, Rijecka Banka from Bayrische Landesbank, and Splitska Banka to Unicredito Italiana. By the year 2000, the foreign bank ownership of assets quadrupled.

banks gradually increased and by the year 2006, 78.7% of assets were held by majority foreign owned banks. Together with their presence, the issued private credit started to gradually expand, experiencing growth from the year 2003 onwards. Another exception from this trend is Bosnia and Herzegovina. Due to the period of mergers and acquisitions in the banking sector of this country, the issued private credit initially saw a decline. This changed quickly once foreign banks started to enter the financial markets. In 2002, one can observe that the foreign banks owned 76.7% of the assets. Parallel with their presence, there was a sudden increase of private credit, from 30.33% in 2002 to 53.12% in 2008.

Expansion of private credit can be seen as a virtuous circle for the overall development of the financial sectors in the South Eastern European region. Financial development, which is in fact often measured by private credit as a percentage of GDP, increased until the global financial crisis in 2007 and 2008. Following this crisis, many countries saw a stagnation or decline in the issued private credit and a withdrawal of capital from the foreign banks' subsidiaries in the region (Bartlett and Prica 2011).

On the contrary, one must also take into consideration the drawbacks associated with the dominance of the foreign banks in the respective countries' financial systems (Hoti and Dermaku 2012). Some foreign banks may exhibit a preference for extending credit to more creditworthy corporate borrowers that are from the same country of origin. Such actions can undermine smaller potential borrowers, leading to reduced efficiency in the domestic financial markets. While foreign direct investments have proven adequate for financing the current account deficit, large foreign companies in North Macedonia tend to avoid using domestic banks, opting instead for subsidiaries of foreign banks or internal company financing (Porte 2022). Moreover, the process of mergers and acquisitions can result in the consolidation of domestic banks and creation of "too big to fail" banking corporations that have the potential to put the whole financial system at risk. Finally, increased integration of financial systems through foreign bank participation may lead to greater fragility and exposure to global economic shocks. This vulnerability was evident during the global financial crisis when many foreign banks chose to withdraw their capital from subsidiaries in the domestic markets.[33] More importantly, financial crises may exacerbate income inequality, negatively impacting the lower percentiles of the income distribution.[34]

4.2 Insurance Sector

Insurance sectors in the region of South Eastern Europe are relatively young, exhibiting notable variations in market development across countries, and being described as open but noncompetitive. Gradual liberalization of this sector broke the well established monopolies and allowed the entry of international companies, which are now dominant figures in these countries. The differences in development of this sector exist mainly due

[33] Expansion of private credit was put on a hold. See Figure 2 for more details.

[34] Discussed in sub-sections 2.1 and 2.2.

to EU membership status of the countries (Srbinoski et al. 2021). From the countries considered for this study, only Croatia, Bulgaria, and Romania were granted memberships while the others are either in the negotiation process or have only received statuses as potential candidates. Furthermore, both life and non-life insurance penetration, which reflect the significance of the insurance sector in the financial system and the economy are at remarkably low levels (Ćurak 2012). The inclination towards the banking sector and the structural imbalance of the financial systems is not surprising, considering that all countries initiated the transition process without well-established capital markets and the insurance sector as the only segment of the non-banking sector (Ganić 2021). Hence, despite the fact that they are relatively underdeveloped, the insurance companies are the second biggest financial institutions in these economies.

Table 5 underlines the inferior structural position of the insurance sectors within the countries of the region. There are three indices that capture the overall development within this sector. Specifically, insurance company assets, life insurance premium volume, and non-life insurance premium volume as percentages of GDP. Relative to the overall economic output, one can observe that the insurance company assets are at very low levels for Albania (1.54%), Bosnia and Herzegovina (4.68%), Bulgaria (3.28%), Croatia (7.86%), North Macedonia (2.94%), Romania (2.81%), and Serbia (3.3%). These percentages are minor when compared to the banking sector assets shown in Table 1.[35] Moreover, these statistics on insurance companies assets are much lower when compared with more developed economies in different regions of the world, such as: United States of America (48.36%), Canada (46.77%), United Kingdom (91.94%), Germany (58.27%), South Africa (45.15%), Singapore (41.05%), and Japan (71%).[36] When comparing which type of insurance is more prevalent, it can be seen that non-life insurance policies are relatively more demanded.

Amongst the countries, judging by all parameters, Croatia has the best developed insurance sector in the region. As a member of the European Union, Croatia has access to the European single financial services market, which is the second biggest world market for insurance. Furthermore, by taking into consideration the performance of insurance companies, Croatia is far more developed than not just South Eastern Europe, but Eastern Europe in general (Sopta and Elezovic 2019). Although the number of insurance companies recently decreased, in 2019 these companies managed to record annual growth of 6.3% in total gross written premiums, with the non-life insurance segment being the main contributor. Additionally, the solvency of insurance companies stays high, and their efficiency in the financial markets is sustainable (Uckar and Petrovic 2022).

[35] Albania (50.01%), Bosnia and Herzegovina (48.42%), Bulgaria (51.47%), Croatia (74.44%), Montenegro (49.94%), North Macedonia (37.27%), Romania (31.39%), and Serbia (39.24%).
[36] See Table 11 for more details.

4.3 Capital Markets and International Capital Flows

Advancements in capital markets through the process of financial market liberalization are even more inferior when compared with the banking and non-banking sector. According to many, the capital markets in South Eastern Europe are characterized as underdeveloped and are thought to be at an infant stage of development.[37] Under the centrally-planned economies prior to the liberalization period, these markets were non-existent. First, from Table 6 one can draw a conclusion that investment funds are barely existent. Relative to overall economic output (GDP), mutual fund assets are at very low levels in Albania (2.66%), Bosnia and Herzegovina (4.23%), Bulgaria (0.52%), Croatia (4.05%), North Macedonia (0.56%), Romania (0.91%), and Serbia (0.3%). The same goes for private pension funds assets, with the highest amount recorded for Croatia ($8440.5), as an average between the years 2000 and 2016. As a comparison, these numbers[38] are significantly higher for more developed countries in different parts of the world, such as: United States of America ($17,078,289), Brazil ($295,466.21), United Kingdom ($1,793,069.8), South Africa ($239,110.75), Singapore ($198,891.57), Japan ($675,428.02), and Australia ($980,820.3).[39]

Second, in Table 7 there are two indices that measure the activities of the stock markets for different time periods in South Eastern Europe. When observing the year 2000, it is evident from the third and fourth columns that both the market value of publicly traded stocks and their trade volume, relative to the gross domestic product are exceptionally low. This is the case for Bulgaria (0.82% and 0.03%), North Macedonia (0.18% and 1.86%), Romania (0.78% and 0.18%), and Serbia (0.16%). Croatia stands out with 11.31%, suggesting that even in the early transition period of the country there was a significant amount of well valued stocks traded on the markets.[40] Furthermore, one can observe that during the global financial crisis in 2007 and 2008, there is an increased volume of traded stocks on the markets. This volume increased mainly due to speculative actions taken by investors. Similar increase can be noticed for the ratio of stock market capitalization to GDP. Although certain stocks lost value, this ratio may appear elevated, as long as the crisis related contraction of GDP is more pronounced.

Capital flows are key determinants of interconnectedness between international financial markets. Often referred to as financial globalization, this process can be defined as the degree to which financial markets, institutions, and capital are integrated across national borders. Despite the "chicken-and-egg" dilemma between the processes of financial globalization and financial liberalization, one can say that more liberalized financial markets are often better integrated and tend to attract entrance of foreign capital and investments in different forms. When it comes to the South Eastern European region, the bulk of inward international capital flows are in the form of debt financing, banking sector lending,

[37] See: Ganić (2021), Ćurak (2012), and Uvalic et al. (2011).
[38] Statistics related with private pension funds.
[39] Shown in Table 12.
[40] Shown by Stock Market Capitalization to GDP (%).

and foreign direct investments (Ganić 2021). Table 8 compares the amounts of capital inflow in terms of foreign direct investments (FDI) and equity investments. Foreign direct investments are more common for all of the countries in the region. In the pursuit of joining the European Union, experts realized that the process of entering the union could be eased by foreign direct investments because they play a crucial role in economic integration, innovation, and organizational restructuring (Jaško et al. 2010). Governments usually employed various strategies to attract these investments, including: tax breaks, changes in trade policies, financial incentives, infrastructure development, and establishment of special economic zones. On the other hand, the fourth column pertains to capital inflow related with the purchase of securities in the domestic financial markets. As argued above, due to the underdevelopment of the capital markets in most of the countries, this type of capital inflow is less common.

If one would compare the years 2002 and 2006, one could see increase in foreign direct investments for Albania (from $135 to $325.14 million), Bosnia and Herzegovina (from $267.77 to $845.96 million), Bulgaria (from $904.66 to $7,874.48 million), Croatia (from $980.78 to $3,346.61 million), North Macedonia (from $114.19 to $427.44 million), and Romania (from $1,144 to $11,006.61 million). Although smaller in volume, increase can be recorded for equity investments in Bulgaria (from $-22.93 to $147.56 million), Croatia (from $33.27 to $408.88 million), North Macedonia (from $0.04 to $86.32 million), and Romania (from $21 to $302.59 million). Following the global financial crisis, there is a sudden drop in both types of capital inflow. Albania may seem as an exception in terms of the decline of foreign direct investments. However, when comparing the same statistics for FDI from 2008 and 2010, one can indeed notice a decline of around $157 million. Moreover, there are negative values of capital inflow in equity investments, especially right after the global financial crisis for North Macedonia, Serbia, Montenegro, and Bulgaria. This suggests that the already limited investments were withdrawn from the capital markets in the respective countries. Among the countries which are not part of the European Union today, Serbia managed to attract the highest amount of foreign direct investments both during the early transitional period and after the global financial crisis.

5 Data

The data comprises annual observations spanning the period from 2000 to 2016. Data availability is a major factor in determining the chosen time period. There are nine countries for which the data is collected, including: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, North Macedonia, Romania, Serbia and Slovenia. All of these countries belong to the South Eastern European region and share common historical development paths, experiencing similar political system shifts from being communist states to adopting liberal democracy models. Among the former constituent republics of Yugoslavia, Slovenia is not included in the main empirical analysis as it is often consid-

ered to be part of Central or Eastern Europe.[41] Nevertheless, this country is considered for robustness checks further down in the thesis. To collect the data, several sources are used, including: World Bank (WB), World Income Inequality Database (WIID), Fraser Institute, International Monetary Fund (IMF), United Nations Conference on Trade and Development (UNCTAD), Freedom House, Organization for Economic Cooperation and Development (OECD) and Database of Political Institutions (DPI). Table 14 contains descriptive information for all the variables included in this study and the exact sources where the data for them was obtained from.[42]

Table 15 displays the overall summary statistics for the panel data, including the mean, standard deviation, and minimum and maximum values. There are in total 136 observations for the eight South Eastern European countries included in the main analysis. Some of the variables have less observations because of missing data.[43] The mean value for the main dependent variable (Gini) is 34.98, with the maximum value reaching 44.598 and the minimum value reaching 28.076. Standard deviation for this variable is 2.97. On the other hand, among the main independent variables, the financial liberalization index has a mean value of 7.609 and a standard deviation of 1.16. Moreover, the financial development indicator used in the main analysis, the ratio of private credit to GDP has the biggest variation between the minimum and maximum values. This variable has a mean value of 40.547 and a standard deviation of 18.237.

5.1 Dependent Variables

Income inequality related measures are taken from the World Income Inequality Database (WIID), which can be found at the United Nations University World Institute for Development Economics Research (UNU-WIDER).[44] This represents the most comprehensive database on income inequality online. Despite the issues of data comparability across countries vis-a-vis differences in definitions of income distributions, credibility of sources, and processing of the data itself, the World Income Inequality Data (WIID) is often recommended as a better source for measuring income inequality than Frederick Solt's Standardized World Income Inequality Data (SWIID)[45], see Jenkins (2014). The first measure considered for the empirical analysis is the Gini coefficient, a statistical measure used to quantify the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly even distribution. In this dataset, it is expressed as a numerical value in the range between 0 and 100, where 0 represents the state of perfect equality, and where 100 means perfect inequality. The Gini coefficient in the World Income Inequality Database (WIID) is derived from disposable income rather

[41] Countries for this study are considered according to the CIA World Factbook.

[42] Moreover, the detailed approach of how this data was constructed can be found in the following github repository: https://github.com/Rizvanski/master_thesis.

[43] There is missing data for fin_dev_prcrdt, net_barter, and edu_ter. Full names shown in Table 14.

[44] UNU-WIDER, World Income Inequality Database (WIID).

[45] See Solt (2016) for further details on SWIID.

than market income, therefore accounting for the impact of counteractive fiscal policies.

Figures 3 and 12 present the Gini coefficients for the countries in South Eastern Europe. From these measurements, it can be observed that there is a general increase in income inequality, particularly during the early years of the decade. As explained in Section 4, this is the period when the region was politically stabilized, enabling the governments to finally focus on the transitional course from centrally-planned to market-based economies. This increase also refers to the historical fact that the socialist and communist systems of the region generally observed lower levels of income inequality (Rose and Viju 2014). Moreover, the differences among the countries in terms of the increasing income inequality trend appeared once the governments started to diverge in their transition policies (Mahutga and Bandelj 2010). Among the countries in the sample, North Macedonia seems to observe the largest increase, from the lowest point with value of 28.076 in 2001 to the highest with the value of 44.598 in 2008. An increase of 16.522 within 7 years. On the other hand, Croatia has the lowest values with the peak reaching 33.643 in 2008. To further emphasize on this point, according to the data, the peak in these values for all of the countries was reached during the global financial crisis.

One of the problems with the Gini index is that it mainly focuses on changes in the middle of the distribution.[46] It does not take into consideration possible changes at the extremes, i.e, the tails of the distribution. Hence, the Gini index alone would not be sufficient for examining the effects of financial liberalization on income inequality. To provide better understanding of which parts of the distribution are more affected, the s80/s20 and Palma ratios are additionally used in the robustness checks. The s80/s20 index represents a ratio of the total income received by the top 80% to the total income received by the bottom 20% of the income distribution. This metric helps evaluate the disparity in income levels between the top and bottom segments of a population. Higher values of this measure imply increased income inequality, while lower values signify the opposite. On the other hand, the Palma ratio is a measure of income inequality that compares the shares of income held by the top 10% and the bottom 40% of the income distribution in a population. The Palma ratio focuses on the extremes of the income distribution, providing insights into the concentration of income among the wealthiest and the most economically disadvantaged segments of society.[47]

5.2 Main Independent Variables

Liberalization of the financial markets within the respective countries is measured by an index that is constructed with data from the Fraser Institute.[48] This institute is notable for its Economic Freedom segment, which assesses the economic freedom of countries through five broad areas, including: size of government, legal system and property rights,

[46] Research brief (UNU-WIDER 2015).

[47] Figures 4 and 5 depict how the values of these measurements progressed during the study period for the countries of South Eastern Europe.

[48] Fraser Institute: https://www.fraserinstitute.org/.

sound money, freedom to trade internationally, and regulation. Hence, it provides comprehensive evaluation of economic environments and offers insight into the role of policies within the financial markets in fostering prosperity and liberty of participation. As suggested by De Haan and Sturm (2017), the financial liberalization index is obtained from the average of four sub-indices found in the economic freedom database. Depending on the freedom of the respective area, these sub-indices vary in their values within the range from 0 to 10. The four sub-indices used for the construction of the financial liberalization index are: freedom to own foreign currency bank accounts (3D), black market exchange rates (4C), controls of the movements of capital and people (4D), and credit market regulations (5A). The last sub-index 5A incorporates private ownership of banks (5Ai), private sector credit (5Aii), and interest rate controls/negative real interest rates (5Aiii). All of the latter three sub-indices under 5A are especially important, given that the banking sector played a key role in the liberalization process of the financial markets in South Eastern Europe.[49] Some researchers use the index from Abiad et al. (2010), which is more concentrated on the liberalization policies within the banking sector.[50] However, data availability for the relevant countries dictates against usage of this index.

Figure 6 depicts how this index progressed during the study period for the countries in South Eastern Europe. Although there are some exceptions, a sudden increase in the values of this index can be noticed at the beginning of the decade.[51] The financial liberalization index attained its peak values in countries which are today members of the European Union, notably led by Romania and Bulgaria, with Croatia closely following suit. Hence, this further reinforces the notion that European Union member countries have more liberalized financial markets, as the free movement of capital is a fundamental principle of the EU.[52]

There are several methods that researchers use to measure financial development. On the one hand, some researchers use access to financial services (Naceur 2016), while others institutional quality (Ewa 2020) as proxies for development of the financial systems. In the main analysis of this study, financial development is measured by the ratio of private credit to GDP. This metric of financial development captures financial depth, i.e, the size of the financial system. Additionally, it quantifies the volume of credit transmitted from savers through financial intermediaries to private firms (De Haan and Sturm 2017), simultaneously reflecting the development of the financial intermediaries. Given that financial systems in South Eastern Europe are predominantly bank-based and the majority of the private credit is issued by these institutions, using private credit as a proxy provides the most accurate measure for assessing financial development in the region.[53] To further explore the role of the banking sector in the overall financial development of the countries, the ratio of banking sector deposits to GDP is considered as another measurement

[49] See Section 4.1 for more details.
[50] See Agnello et al. (2012) and Delis et al. (2014).
[51] Countries that stand out from this trend are Serbia, Montenegro, and North Macedonia.
[52] Pointed out by Hoti and Dermaku (2012).
[53] Shown in Table 1.

in the robustness checks.

Figure 7 presents distinct scatterplots illustrating correlation between financial liberalization and income inequality, as well as financial development and income inequality. The correlation is displayed with the measurements used in the main analysis. There is a positive correlation between financial liberalization and income inequality. This correlation is in line with most of the panel data based empirical studies on this relationship.[54] On the other hand, the data points for the correlation between financial development and income inequality are do not provide a clear picture of whether there is a positive or negative relationship between the two. Considering the conflicting arguments presented in the literature and the varying pace at which countries in the region experienced financial development, this study introduces additional controls to ensure a robust and reliable establishment of their interdependence.

Finally, the third main independent variable is a binary variable that indicates the period of the global financial crisis. This variable indicates the years 2007 and 2008. The global financial crisis led to severe economic downturns of many countries in the world, impacting income inequality through several mechanisms. One mechanism is through its effects on the real economies. Another is through the enhanced integration of the financial markets and financial liberalization. In the case of South Eastern Europe, consequences on the real economy were felt after many of the banks decided to withdraw their capital, putting a stop to the lending-consumption-investment boom experienced in the region.[55] Also, the amount of inward capital flow in the countries was reduced significantly, which left negative impacts on the economies.[56] Hence, this variable is going to capture the effect of the global financial crisis on income inequality, both through direct and indirect effects.

5.3 Control Variables

Control variables are included such that potential confounding factors that might influence the dependent and independent variables are accounted for. Following the work of Kuznets (1955) and his well-known theory of the inverted U-shaped relationship between economic growth and income inequality, control variables for GDP growth, and shares of agricultural and industrial activities in the economies are included. Simultaneously, to counter the influence of the positive effects from finance on economic development, as suggested by King and Levine (1993), and its potential effects on income inequality, a control variable for GDP per capita is included. Another important factor that is known to have an influence on income inequality is trade. According to the standard trade theory - the Hecksher-Ohlin model - developing countries experience egalitarian trends as a result of enhanced trade relations (Meschi and Vivarelli 2009). Hence, control variables repre-

[54] See: De Haan and Sturm (2017), Zehri (2019), Radhianshah and Kurnia (2021), Furceri and Loungani (2018), and Li and Su (2021).

[55] See: Ćurak (2012), Uvalic et al. (2011), and Bartlett and Prica (2011).

[56] Explained in Section 4.3. See also Table 8.

senting trade as a percentage of GDP and net barter terms of trade have been incorporated into the analysis. Furthermore, the presence of abundant natural resources can lead to extractive political institutions, characterized by authoritarian rule and lack of inclusive governance (Acemoglu and Robinson 2013). Among the countries in South Eastern Europe, Romania has one of the largest oil and natural gas reserves in Europe. Therefore, another variable that measures total natural resources rents is added. To further explore the role of governments, variables that measure their overall presence in the countries, and that capture the protection of civil liberties and orientation of chief executive parties are included. The last variable is a binary variable indicating governments where left-wing parties (communist, socialist, and social democratic) are in power, alluding to the fact that these chief executive parties may be concerned more about establishing systems that are egalitarian. In the long list of controls, additional variables are included to control for the influence of inflation rates (Chletsos and Sintos 2023), population growth (Deaton and Paxson 1997), human capital (Abdullah et al. 2015), and foreign direct investments (Herzer, Nunnenkamp, et al. 2011).

6 Empirical Setup

The empirical setup is based on a country fixed-effects dynamic panel data model:

$$\begin{aligned} Gini_{i,t} = {} & \beta_0 + \beta_1 FL_{i,t-1} + \beta_2 FD_{i,t-1} + \beta_3 GFC_{i,t-1} \\ & + \beta_4 FL_{i,t-1} \times FD_{i,t-1} + \beta_5 FL_{i,t-1} \times GFC_{i,t-1} + \beta_6 X_{i,t} + a_i + \varepsilon_{i,t} \end{aligned} \tag{1}$$

Where the dependent variable, *Gini* stands for income inequality measured by the Gini coefficients. The main independent variables, *FL* and *FD* represent the financial liberalization and financial development indices, and *GFC* is the global financial crisis binary variable. X is a vector of the aforementioned controls, and ε represents the error term. The notations i and t denote country and year, respectively. To avoid potential reverse causality issues, time lags for the main independent variables of one period are introduced. Standard errors are clustered at the country-level to address heteroscedasticity and autocorrelation of error terms within the same country.

To choose which model is adequate for the panel data, a Hausman test was conducted. The results validate the choice of the fixed-effects model over its random-effects model alternative.[57] As the interest lies in examining the effects of financial liberalization on income inequality within the countries, this dynamic panel model is better suited, when compared with cross-country regressions (De Haan and Sturm 2017). On top of that, all time-invariant characteristics of the countries under considerations are controlled for. This approach brings many advantages as it helps eliminate potential biases stemming from unobserved, stable factors unique to each country. Thus, this model ensures more

[57] P-values for the Hausman Test in Regression Table 1 and Regression Table 2.

accurate and robust estimations, allowing researchers to focus on the dynamic relationship between the dependent and independent variables within the countries over time.

First, the financial liberalization and financial development variables are included separately. As explained in Section 4, the policies undertaken with the liberalization of the financial markets in South Eastern Europe led to expansion of private credit through the banking sector and overall improvement in the financial markets. Therefore, seeing how financial development has impacted income inequality within the countries is a crucial element of the financial liberalization process. Furthermore, in order to test the theory by Bumann and Lensink (2016), the variables measuring financial liberalization and financial development are interacted together, as shown by *FLxFD*. According to this theoretical model, in countries with higher financial depth, financial liberalization would lead to better income distribution across individuals as a result of improved banking efficiency and higher deposit interest rates. Hence, a negative sign in the coefficient of the interacted variable would provide evidence that is in line with this theory.

Second, the binary global financial crisis variable, *GFC* is included to estimate its impact on income inequality. This is of great importance for the region since several researchers claim that the global financial crisis left negative impacts on the real economies through reduced global demand for goods and services, distortions in the domestic industrial production capacities, and by putting a hold on inward capital flows.[58] Additionally, as pointed out by the theoretical and empirical literature, financial crises are known to be positively associated with increasing income inequality. To test all of these claims, the *GFC* variable is first included separately and then interacted with the financial liberalization variable, as shown by *FLxGFC*. The reason for this interaction is to understand whether the relationship between financial liberalization and income inequality is conditioned by the occurrence of financial crisis in the region. Within the interaction term, time lags for *FL* and *GFC* are retained to mitigate potential reverse causality problems.

To further explore the time dimensions of the financial liberalization process, in the following analysis, the impact of financial liberalization on income inequality is differentiated between the periods before, during, and after the global financial crisis. This can be seen in the following modified empirical setup:

$$\begin{aligned} Gini_{i,t} = {} & \beta_0 + \beta_1 FL_{i,t-1} + \beta_2 FD_{i,t-1} + \beta_3 GFC_{i,t-1} + \beta_4 PRE_t \\ & + \beta_5 POST_t + \beta_6 FL_{i,t-1} \times PRE_t + \beta_7 FL_{i,t-1} \times POST_t + \beta_8 X_{i,t} + a_i + \varepsilon_{i,t} \end{aligned} \tag{2}$$

The *PRE* and *POST* are binary variables indicating the time periods before and after the global financial crisis.[59] They are interacted with the financial liberalization variable, producing *FLxPRE* and *FLxPOST*, respectively. Time lags are kept in the financial liberalization variables to ensure avoidance of endogeneity problems. Similar to equation (1), same control variables are included and the standard errors are clustered at the country-

[58] See: Bishev and Odzaklieska (2013), Kubiszewska (2013), Trifonova and Atanassov (2016), Zaman and Georgescu (2009), and Bartlett and Prica (2011).

[59] Time period before is between 2000 and 2006 and time period after is between 2009 and 2016.

level. The main independent variables are included in all of the executed regressions. Additionally, within the interaction term *FLxGFC*, the time lag for *GFC* is removed to avoid collinearity issues as this variable in the modified empirical setup is an indicator for the time period 2007 and 2008.

In contrast to other regions worldwide, the effects of the global financial crisis in South Eastern Europe were mainly transmitted in the real economies by limiting the inward capital flows (Ćurak 2012). The intensified process of financial liberalization at the beginning of the 21st century facilitated the entry of many foreign financial institutions and significantly increased the inward capital flows, leading to a lending-consumption-investment boom (Cetkovic 2011).[60] This virtuous cycle was disrupted once the global financial crisis struck. Capital allocation towards the foreign-banks dominated banking sector was reduced significantly. Foreign banks decided not to recapitalize their subsidiaries in the region, which put a hold on the credit expansion, investments and consumption in the real economies. Furthermore, the drastically reduced foreign direct investments caused problems in the industrial capacities of the countries, reduced the tax revenues for the governments, and lowered the demand for labor from the domestic markets (Bartlett and Prica 2011). In essence, the stagnation of the financial liberalization process in the aftermath of the crisis impeded the financial development and economic advancements of the countries. Therefore, observing the temporal dimensions of financial liberalization with respect to the time period of the global financial crisis is crucial when trying to understand how this process affected income inequality.

With this empirical approach, the main goal is to see whether the process of financial liberalization in South Eastern Europe has any effects on the distribution of income within the countries. The effect is measured based upon the overall impact on the income distribution, without precisely defining whether these effects come from capital or labor income differences.

7 Results

Regression Table 1 presents the results obtained using the fixed-effects dynamic panel data model with equation (1). Below the main results, one can also refer to the R-squared values, number of observations, and the p-values for the Hausman tests. Given that time lags were introduced and there is missing data for some of the countries, the sample size when conducting the analysis contains from 105 to 107 observations. Moreover, based on the p-values obtained from the Hausman test, it can be inferred that opting for the fixed-effects model is substantiated.

In the initial steps of the analysis, the main independent variables are considered separately. The results from these regressions can be seen in columns (1), (2), and (3). One unit increase in the financial liberalization index is associated with an average increase

[60] Explained in Sections 4.1, 4.2, and 4.3.

of 0.359 in the Gini coefficient.[61] This impact is statistically significant at the 5% level. Hence, after controlling for many other confounding factors, the process of financial liberalization on its own worsens the distribution of income and increases income inequality within the countries of South Eastern Europe for the time period between the years 2000 and 2016. One can also observe that the binary variable representing the global financial crisis period (*GFC*) is statistically significant at the 10% level. This suggests that the occurrence of the financial crisis was associated with a substantial increase in income inequality, with the magnitude of the coefficient (1.76) further emphasizing the strength of this relationship. In the next step, all of the main independent variables are included together.[62] From the signs of the coefficients and their statistical significance, one can confirm that financial liberalization and the global financial crisis have increased income inequality. Contrarily, the observed negative coefficient and statistical significance (10%) for financial development (*FD*), implies that modernization and enhancement of financial markets within the countries of South Eastern Europe contributed to a more favorable income distribution. These results are in line with the theoretical models arguing that financial development reduces income inequality.[63] In relation to the magnitude of the effect, one standard deviation increase in the financial development measure reduced the Gini coefficient by 3.81 standard deviations. These findings underscore the distinct roles played by financial liberalization, financial development, and the global financial crisis in shaping the distribution of income within the countries of South Eastern Europe during the study period.[64]

Another important aspect of financial liberalization is to observe whether this process is dependent on financial development. As suggested by the theory from Bumann and Lensink (2016), financial depth plays a key role in determining the effects of financial liberalization on the distribution of income. Column (5) contains the interacted variable *FLxFD*, which tests these theoretical claims and potential nonlinearity between financial liberalization and income inequality. The sign of this interaction term (-0.019) and its statistical significance (1% level) provide evidence that are line with the theory. This implies that the relationship between financial liberalization and income inequality depends on the financial development of the countries within South Eastern Europe. In countries where there is higher financial depth, measured by the proxy metric of private credit to GDP, liberalization policies in the financial markets would lead towards better distribution of income across individuals and reduced income inequality. The theory suggests that entrance of foreign capital improves banking efficiency, leading to reduction of interest rates and subsequently higher demand for loans. This higher demand would then result in an equilibrium shift, where both loan and deposit interest rates are expected to rise,

[61] This could also be interpreted as one standard deviation increase in the financial liberalization index corresponds to increased Gini coefficient by 0.14 standard deviations.

[62] As shown by column (4) in Regression Table 1.

[63] In line with the theory from Galor and Zeira (1993), Banerjee and Newman (1993), Galor and Moav (2004), and Claessens and Perroti (2007).

[64] Shown by columns (1), (2), (3), and (4) in Regression Table 1.

contributing to increased income of savers and better distribution of income.

To test whether the relationship between financial liberalization and income inequality is dependent on the occurrence of financial crisis in the region, column (6) contains the interacted variable *FLxGFC*. As can be seen from the results, the estimated impact is not significant, denying any dependance of financial liberalization on the financial crisis in terms of its impact on income inequality under this empirical setup. Column (7) contains both interacted variables, *FLxFD and FLxGFC*. Here, one can confirm that financial liberalization is dependent on financial development, but also deny any relation with the occurrence of financial crisis, in terms of its potential impact on the distribution of income within the countries in South Eastern Europe. It is also important to note that under all regression setups in Regression Table 1, the effect of financial liberalization on income inequality is positive and statistically significant, once again confirming the positive relationship.

Regression Table 2 contains the results for the modified empirical with equation (2). This table contains several regressions that explore the time dimensions of the financial liberalization process. Column (1) contains the results for the three main independent variables that are constant in all of the regressions.[65] In column (2), one can see that the interaction term, *FLxGFC* is positive (0.248) and statistically significant (1%). Unlike in the previous empirical setup, here the time lag for *GFC* is removed, as it is used as an indicator variable for the years 2007 and 2008. This implies that the positive impact of financial liberalization on income inequality was more pronounced during the global financial crisis period. When observing columns (3) and (4), one can see that the impact of financial liberalization on income inequality prior to the global financial crisis is positive and statistically significant. This was a time period when the liberalization policies of the financial markets began to bear fruit, resulting in entry of foreign entities and increased amounts of inward capital flows.[66] One unit increase in the financial liberalization measurement is associated with an average increase of the Gini coefficient by 1.347. Hence, the foreign capital induced economic booms experienced in these countries prior to the global financial crisis led to increased income inequality. Furthermore, in columns (5) and (6) one can observe the impact of financial liberalization on income inequality after the global financial crisis. Once the global financial crisis occurred, the process of financial liberalization stagnated and the foreign capital induced economic advancements in the region were disrupted. In both regressions, the coefficient of the interaction term, *FLxPOST* is negative and with high statistical significance. One unit increase in the financial liberalization index after the global crisis reduced the Gini coefficients by 1.669 on average. At the same time, it is important to note that the results for the interaction *FLxGFC* stay positive and statistically significant in all of the regressions.

Given that the dependance of financial liberalization on financial development was empirically established, these coefficients once again confirm that as the development

[65] Also shown by column (4) in Regression Table 1.

[66] See Section 4 for more details.

of the financial markets progressed, the impact of financial liberalization on income inequality becomes negative.[67] In the period after the global financial crisis, the countries had much more developed financial markets when compared to before.[68] Also, the results show that the economic growth in the countries worsened the income distribution and benefited the wealthy, justifying the concerns raised by Stiglitz (2012) in his book: *The Price of Inequality: How Today's Divided Society Endangers Our Future*.[69] This point is discussed in more detail with the last robustness check, when considering income inequality measures that account for the very extremes of the income distribution.

7.1 Robustness Checks

There are several robustness checks conducted to enhance the credibility of the main results. First, the first-difference method is used, addressing potential omitted variable concerns that may arise within the panel data. Additionally, this method helps counter the potential problem of serial correlation among error terms within the countries across time. The results can be seen in Regression Table 3. With the first regression in column (1), the dependance of financial liberalization on financial development and the occurrence of financial crisis is tested, when considering the impact on income inequality. Similar to what was displayed in Regression Table 1, one can confirm the relevance of financial development, and deny any relation with the occurrence of financial crisis in the region. The magnitude of the impact is also similar, when observing the interacted variable *FLxGFC*. Columns (2) through (6) explore the time dimensions of the financial liberalization process and its effects on income inequality. The results from these regressions show similar findings with what was shown in Regression Table 2. While a statistically significant relationship cannot be established in the period preceding the global financial crisis, the period following the crisis witnessed an improvement in the income distribution and reduced income inequality within the countries. In columns (4) to (6), the magnitude of the coefficients are in the range from -1.7 to - 1.4, with statistical significance at the 1% and 5% levels, respectively.

Slovenia was a constituent republic of the Socialist Federal Republic of Yugoslavia (SFRY). Although not considered to be part of South Eastern Europe according to some classifications,[70] including this country in the analysis would provide a more comprehensive study with all of the former Yugoslav republics, further strengthening the estimation results by adding more observations to the already limited sample size. Similar to the previous robustness check, one can confirm that financial liberalization has a negative impact on income inequality, when interacted with financial development, as shown by

[67] Shown by the interacted variable, *FLxPOST*. This is in line with Bumann and Lensink (2016).

[68] Shown in Figure 2: Private Credit to GDP (%). This metric is often used as a proxy for financial development and financial depth.

[69] Although his book is mainly based on examples from the USA economy, he still discusses why the rising income inequality trend is relevant for sustainable economic outcomes.

[70] World Factbook, Standing Committee on Geographical Names, and World Bank (SEE6 and SEE8).

column (1) in Regression Table 4. In terms of the time dimensions of the financial liberalization process, from columns (2) through (4), it can be seen that prior and during the global financial crisis income inequality increased, whereas in the aftermath of the crisis income inequality is reduced, once again aligning with the theory from Bumann and Lensink (2016). Hence, the results provide similar evidence after including all of the former Yugoslav republics in the empirical analysis.

The third robustness check is done by using an alternative measurement for financial development. Rather than utilizing the measurement of private credit to GDP, this robustness check employs the ratio of banking sector deposits to GDP. This ratio more accurately reflects the development of the banking sectors within the region of South Eastern Europe, where the majority of the countries have bank-based financial systems.[71] In Regression Table 5, columns (1) through (3) contain the results that show how this financial development measurement is related to income inequality. The distinct role of how financial development is associated with the distribution of income is not established by statistically significant estimates, as shown by column (1) in Regression Table 5. However, as evidenced in column (3), one can again affirm the dependency of financial liberalization on financial development, even when employing the alternative measure for financial development. Columns (4) through (7) reaffirm the positive impact of financial liberalization on the income distribution within the countries after the global financial crisis, contrasting with its negative influence in the period preceding and during the crisis.

In the fourth and last robustness check, the s80/s20 and Palma ratios are used instead of the Gini coefficients as dependent variables. Any effects on these ratios would provide a better understanding of which parts of the income distribution are more affected.[72] The results can be seen in Regression Table 6. When observing columns (1) and (5), it can be seen that financial liberalization is positively associated with the s80/s20 and Palma ratios, with the impact on the s80/s20 ratio being more pronounced both in terms of magnitude (.286) and statistical significance (1%). One unit increase in the financial liberalization measurement increases the ratio of the total income received by the top 80% to the total income received by the bottom 20% by 0.286 on average. Moreover, one standard deviation increase in the financial liberalization index would result in increased s80/s20 ratio by 0.266 standard deviations. Although smaller in magnitude, the process of financial liberalization has also affected the very extremes of the income distribution, alluding to the fact that the income of the wealthiest has increased when compared to the most economically disadvantaged segments of society.[73] On the other hand, the overall development of the financial market, when measured by private credit to GDP, has reduced both of these ratios in small proportions by an average of -0.16 [74] and -0.005.[75] In column (2) and (6), one can see that the results are line with the theory from Bumann and Lensink (2016), and

[71] Explained in more details in Section 4.1. See also Table 1.
[72] Explained in more detail in Section 5.1. See also Figures 4 and 5.
[73] The top 10% and bottom 40% percentiles income difference measured by the Palma ratio.
[74] The s80/s20 ratio.
[75] The Palma ratio.

that the impact on these ratios was stronger during the global financial crisis. However, it must be pointed out that the dependency of financial liberalization on financial development is considerably smaller in size, when considering the alternative ratios for measuring income inequality. In terms of the time dimensions of the financial liberalization process, the same conclusions can be drawn. The process of financial liberalization process has increased income inequality prior and during the global financial crisis, whereas the same process reduced the alternative income inequality measures after the global financial crisis. The effects on the Palma ratios for the period before and after the global financial crisis are at higher significant levels (1%).

Considering that a link was established between the process of financial liberalization and these alternative measurements of income inequality, it can be noted that a significant amount of the effects on income inequality come from the higher ends of the distribution, i.e, the income share differences between the top and bottom percentiles. The liberalization and privatization of the financial markets, with the greatest efforts located in the banking industry, played a key role in allowing the highest percentiles of the income distribution to accumulate more income. This poses a serious question whether the increased presence of foreign banks,[76] mainly led by higher profit margins and lucrative actions,[77] which led to massive expansion of credit in the private sector, served as a platform for wealthy individuals to create more wealth, while exacerbating the status of the poor.[78]

[76] See Table 4 for more details.

[77] High profitability margins for the banking sector in South Eastern Europe. Statistics explained in Table 3: Profitability of Banking Sectors in South Eastern Europe.

[78] Considering that the impact of financial development is marginal on s80/s20 and Palma.

8 Conclusion

In the 20th century, the region of South Eastern Europe experienced several major political system shifts. The countries belonging to this geographical area share similar historical development paths. From being under the Ottoman Rule for almost five centuries, to adopting communism following the Second World War (1939-1945), and finally proclaiming independence in the form of liberal democracies after the collapse of the Berlin Wall in 1989. The fall of the communism ideology marked the beginning for adopting market-based economic structures. Together with the celebratory approach by many in the West towards adopting neoliberal models, easing and removal of restrictions in the financial systems happened at full swing. This process enhanced the foreign capital inflow within the countries and at the same time encouraged participation of many foreign financial institutions. Although major innovations and expansion of private credit did take place, inequality of income across individuals stayed persistent. Moreover, the increased integration of the financial markets left the countries exposed to one of the greatest economic catastrophes the modern world has ever seen, the global financial crisis.

Using a dynamic panel data model, after controlling for several factors, this study shows that the process of financial liberalization has contributed to increased income inequality within the countries of South Eastern Europe. This increase is recorded across several indices, including the Gini coefficients, as well as alternative measurements for income inequality, i.e, the s80/s20 and Palma ratios. These ratios account for changes in the very extremes of the income distribution, showing that a considerably large amount of the effects come from income share differences between the top and bottom percentiles. Each additional unit in the financial liberalization index corresponds to average increases in the Gini coefficient by 0.52, the s80/s0 ratio by 0.286, and the Palma ratio by 0.31. Furthermore, the empirical results show that the financial liberalization induced economic booms prior to the global financial crisis led to higher rates of income inequality. Other things being equal, an additional unit in the financial liberalization index prior to the crisis led to an increase of the Gini coefficient by 1.347, the s80/s20 ratio by 0.258, and the Palma ratio by 0.136.

By briefly summarizing these historical facts alongside the empirical explanations presented in this study, one would raise suspicion about whether the aggressive approach towards reduction of government influence in the economies and the massive removal of regulations in the financial markets is the best option going forward. Especially when there is a downward trend in the income shares of the lower and middle percentiles, while the higher percentiles of the income distribution create even more wealth.

When we think about advancing our societies and developing our economies, we should concentrate more on the expansion of our freedoms, and not wealth, as the monetary aspect is merely useful for achieving something else (Sen 1999).

References

Abdullah, Abdul, Hristos Doucouliagos, and Elizabeth Manning (2015). "Does education reduce income inequality? A meta-regression analysis". *Journal of Economic Surveys* 29.2, pp. 301–316.

Abiad, Abdul, Enrica Detragiache, and Thierry Tressel (2010). "A new database of financial reforms". *IMF Staff Papers* 57.2, pp. 281–302.

Abiad, Abdul, Nienke Oomes, and Kenichi Ueda (2008). "The quality effect: Does financial liberalization improve the allocation of capital?" *Journal of Development Economics* 87.2, pp. 270–282.

Acemoglu, Daron and James A Robinson (2013). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Currency.

Agnello, Luca, Sushanta K Mallick, and Ricardo M Sousa (2012). "Financial reforms and income inequality". *Economics Letters* 116.3, pp. 583–587.

Arestis, Philip and Asena Caner (2005). "Financial liberalization and poverty: Channels of influence". *Financial liberalization: Beyond orthodox concerns*, pp. 90–128.

Arestis, Philip and Murray Glickman (2002). "Financial crisis in Southeast Asia: dispelling illusion the Minskyan way". *Cambridge Journal of Economics* 26.2, pp. 237–260.

Baldacci, Emanuele, Luiz De Mello, and Gabriela Inchauste (2004). "Financial crises, poverty, and income distribution". *Macroeconomic Policies and Poverty*. Routledge, pp. 269–307.

Banerjee, Abhijit V and Andrew F Newman (1993). "Occupational choice and the process of development". *Journal of Political Economy* 101.2, pp. 274–298.

Bartlett, Will and Ivana Prica (2011). "The variable impact of the global economic crisis in South East Europe". *Economic Annals* 56.191, pp. 7–34.

Beck, Ulrich (2007). "Beyond class and nation: reframing social inequalities in a globalizing world1". *The British Journal of Sociology* 58.4, pp. 679–705.

Benczúr, Péter and Virmantas Kvedaras (2021). "Nonlinear impact of financial deepening on income inequality". *Empirical Economics* 60.4, pp. 1939–1967.

Bishev, Gligor and Dragica Odzaklieska (2013). "Effects of the Global Economic Crisis on The Economies of the Western Balkans". *Economic Integrations, Competition and Cooperation*, p. 210.

Bonin, John P. (2004). "Banking in the Balkans: the structure of banking sectors in Southeast Europe". *Economic Systems* 28.2, pp. 141–153.

Bordo, Michael D and Christopher M Meissner (2015). *Growing up to stability? Financial globalization, financial development and financial crises*. Tech. rep. National Bureau of Economic Research.

Bumann, Silke and Robert Lensink (2016). "Capital account liberalization and income inequality". *Journal of International Money and Finance* 61, pp. 143–162.

Calic, Marie-Janine and Dona Geyer (2019). *History of Yugoslavia*. Purdue University Press.

Cetkovic, Predrag (2011). *Credit Growth and Instability in Balkan Countries: The Role of Foreign Banks (Discussion Paper No. 27). London: Research on Money and Finance.* English. WorkingPaper.

Chary, F.B. (2011). *The History of Bulgaria*. The Greenwood Histories of the Modern Nations. Bloomsbury Academic.

Chletsos, Michael and Andreas Sintos (2023). "Financial development and income inequality: A meta-analysis". *Journal of Economic Surveys* 37.4, pp. 1090–1119.

Claessens, Stijn and Enrico Perotti (2007). "Finance and inequality: Channels and evidence". *Journal of Comparative Economics* 35.4, pp. 748–773.

Clarke, George R. G., Lixin Colin Xu, and Heng-fu Zou (2006). "Finance and Income Inequality: What Do the Data Tell Us?" *Southern Economic Journal* 72.3, pp. 578–596.

Ćurak, Marijana (2012). "Financial integration of western Balkans and European Union and regional financial cooperation in western Balkans". *TASAM | Turkish Asian Center for Strategic Studies*.

De Haan, Jakob and Jan-Egbert Sturm (2017). "Finance and income inequality: A review and new evidence". *European Journal of Political Economy* 50, pp. 171–195.

Deaton, Angus S and Christina H Paxson (1997). "The effects of economic and population growth on national saving and inequality". *Demography* 34.1, pp. 97–114.

Delis, Manthos D, Iftekhar Hasan, and Pantelis Kazakis (2014). "Bank regulations and income inequality: Empirical evidence". *Review of Finance* 18.5, pp. 1811–1846.

Demirgüç-Kunt, Asli and Ross Levine (2009). "Finance and inequality: Theory and evidence". *Annual Review of Financial Economics* 1.1, pp. 287–318.

Denk, Oliver and Boris Cournède (2015). *Finance and income inequality in OECD countries*. OECD Economics Department Working Papers 1224. OECD Publishing.

Ewa, Weychert (2020). "Financial development and income inequality". *Central European Economic Journal* 7.54, pp. 84–100.

Exeter, Julian and Steven Fries (1998). "The Post-Communist Transition: Patterns and Prospects". *Finance and Development* 35.3, p. 26.

Faik, Jürgen (2012). *Income inequality and poverty in front of and during the economic crisis - An empirical investigation for Germany 2002-2010*. Working Papers 255. ECINEQ, Society for the Study of Economic Inequality.

Ferreira, Francisco HG, Giovanna Prennushi, and Martin Ravallion (1999). *Protecting the poor from macroeconomic shocks*. Vol. 2160. World Bank Publications.

Frashëri, K. (1964). *The History of Albania: A Brief Survey*. The November 8th Publishing House.

Furceri, Davide and Prakash Loungani (2018). "The distributional effects of capital account liberalization". *Journal of Development Economics* 130.C, pp. 127–144.

Galor, Oded and Omer Moav (2004). “From physical to human capital accumulation: Inequality and the process of development”. *The Review of Economic Studies* 71.4, pp. 1001–1026.

Galor, Oded and Joseph Zeira (1993). “Income distribution and macroeconomics”. *The Review of Economic Studies* 60.1, pp. 35–52.

Ganić, Mehmed (2021). *Financial globalization in the emerging Balkans: exploring financial trends on the eve of EU membership*. Springer Nature.

Gehler, M., P.H. Kosicki, and H. Wohnout (2019). *Christian Democracy and the Fall of Communism*. Civitas. Studies in Christian Democracy. Leuven University Press.

George, Magoulios, Dimitrios Kydros, and Athianos Stergios (2015). “The Economic Crisis (2008) and Effects on Income. The Case of Greece”. *Procedia Economics and Finance* 19, pp. 27–36.

Gligorova, Viktorija (2022). “Implementation of Basel Capital Requirements in N.Macedonia”. *Seminar for Senior Bank Supervisors - World Bank*.

Gore, Charles (2000). “The Rise and Fall of the Washington Consensus as a Paradigm for Developing Countries”. *World Development* 28.5, pp. 789–804.

Grabel, Llene (1995). “Speculation-led economic development: a post-Keynesian interpretation of financial liberalization programmes in the Third World”. *International Review of Applied Economics* 9.2, pp. 127–149.

Greenwood, Jeremy and Boyan Jovanovic (1990). “Financial development, growth, and the distribution of income”. *Journal of Political Economy* 98.5, Part 1, pp. 1076–1107.

Herzer, Dierk, Peter Nunnenkamp, et al. (2011). *FDI and income inequality: Evidence from Europe*. Tech. rep. Kiel Working Paper.

Hoti, Arber H and Arben Dermaku (2012). “Western Balkan Countries and the European Financial System: Analysis from the Financial Reporting Perspective”. *ACADEMICIA: An International Multidisciplinary Research Journal, ISSN*, pp. 2249–7137.

IMF (2004). *Republic of Croatia: Report on the Observance of Standards and Codes-Banking Supervision, Payment Systems, and Securities Regulation—Update*. IMF Staff Country Reports 2004/252. International Montery Fund.

— (2010). *Republic of Serbia: Financial Sector Assessment Program Update: Detailed Assessment of Basel Core Principles for Effective Banking Supervision*. IMF Staff Country Reports 2010/148. International Monetary Fund.

— (2016). *Montenegro: Financial Sector Assessment Program-Financial Crisis Preparedness and Management-Technical Note*. IMF Staff Country Reports 2016/199. International Monetary Fund.

Jaško, Ondrej, Mladen Čudanov, Popovic Nenad, and Gheorghe Savoiu (2010). “Foreign Direct Investments in South-Eastern Europe Countries Analysis of Influence Factors”. *Revista Română de Statistică* 58.1.

Jauch, Sebastian and Sebastian Watzka (2016). “Financial development and income inequality: a panel data approach”. *Empirical Economics* 1, pp. 291–314.

Johnson, Simon and Daron Acemoglu (2023). *Power and progress: Our thousand-year struggle over technology and prosperity*. Hachette UK.

Jović, Dejan (2009). *Yugoslavia: A State that Withered Away*. Purdue University Press.

Kaplan, R (2013). *Obama: Income inequality "the defining challenge of our time"*. Originally published by CBS News.

King, Robert G and Ross Levine (1993). "Finance and growth: Schumpeter might be right". *The Quarterly Journal of Economics* 108.3, pp. 717–737.

Kose, M Ayhan, Eswar S Prasad, and Marco E Terrones (2009). "Does financial globalization promote risk sharing?" *Journal of Development Economics* 89.2, pp. 258–270.

Kubiszewska, Katarzyna (2013). "Economic crisis in Croatia". *Oeconomia Copernicana* 4.2, pp. 57–72.

Kumhof, Michael, Romain Rancière, and Pablo Winant (2015). "Inequality, leverage, and crises". *The American Economic Review* 105.3, pp. 1217–1245.

Kuznets, Simon (1955). "Economic Growth and Income Inequality". *The American Economic Review* 45.1, pp. 1–28.

Kwak, James (2018). *Economism: Bad economics and the rise of inequality*. Vintage.

Li, Xiang and Dan Su (2021). "Does Capital Account Liberalization Affect Income Inequality?" *Oxford Bulletin of Economics and Statistics* 83.2, pp. 377–410.

Lustig, Nora, Albert Fishlow, and François Bourguignon (2000). "Presidential address: Crises and the poor: Socially responsible macroeconomics [with comments]". *Economia* 1.1, pp. 1–30.

Mahutga, Matthew and Nina Bandelj (2010). "How SocioEconomic Change Shapes Income Inequality in Post-Socialist Europe". *Social Forces* 88, pp. 2133–2161.

Mason, D.S. (1992). *Revolution In East-central Europe: The Rise And Fall Of Communism And The Cold War*. Avalon Publishing.

McKinnon, Ronald I and Huw Pill (1997). "Credible economic liberalizations and overborrowing". *The American Economic Review* 87.2, pp. 189–193.

Meschi, Elena and Marco Vivarelli (2009). "Trade and income inequality in developing countries". *World development* 37.2, pp. 287–302.

Meštrović, S.G., S. Letica, and M. Goreta (1993). *Habits of the Balkan Heart: Social Character and the Fall of Communism*. Habits of the Balkan Heart: Social Character and the Fall of Communism. Texas A & M University Press.

Miru, Oana, Roxana Hetes-Gavra, and Ana Nicolescu (2008). "Applying Basel II Requirements in Romania". *University Library of Munich, Germany, MPRA Paper*.

Naceur, Mr Sami Ben (2016). *Financial Development, Inequality and Poverty*. International Monetary Fund.

Nenovski, Tome, Evica Delova Jolevska, and Ilija Andovski Msc (2012). "Banking services in terms of changing environment: the case of acedonia". *Procedia-Social and Behavioral Sciences* 44, pp. 347–356.

Ni, Niannian and Yulin Liu (2019). "Financial liberalization and income inequality: A meta-analysis based on cross-country studies". *China Economic Review* 56.C, pp. 1–1.

Ortiz, Isabel and Matthew Cummins (2011). *Global Inequality: Beyond the Bottom Billion – A Rapid Review of Income Distribution in 141 Countries*. Working papers. UNICEF, Division of Policy and Strategy.

P. Jenkins, Stephen (2014). *World Income Inequality Databases: an assessment of WIID and SWIID*. ISER Working Paper Series 2014-31. Institute for Social and Economic Research.

Pippan, Christian (2004). "The Rocky Road to Europe: The EU's Stabilisation and Association Process for the Western Balkans and the Principle of Conditionality". *European Foreign Affairs Review* 9, pp. 219–245.

Porte, Jules (2022). *North Macedonia: Identifying a development model for the future*. Working Paper 39. Agence Française de Développement.

Radhianshah, Muhammad Taufik and Akhmad Syakir Kurnia (2021). "Capital Account Liberalization and Income Inequality: A Panel Study of 28 European Countries". *Journal of Economics, Business, & Accountancy Ventura* 24.1, pp. 12–22.

Rajan, Raghuram G and Luigi Zingales (2003). "The great reversals: the politics of financial development in the twentieth century". *Journal of Financial Economics* 69.1, pp. 5–50.

Reinhart, Carmen M and Kenneth S Rogoff (2009). "The aftermath of financial crises". *The American Economic Review* 99.2, pp. 466–472.

Rizova, Polly S. (2007). "Balkanization". *The Blackwell Encyclopedia of Sociology*. John Wiley Sons, Ltd.

Rosas, Guillermo (2006). "Bagehot or bailout? An analysis of government responses to banking crises". *American Journal of Political Science* 50.1, pp. 175–191.

Rose, Sara and Crina Viju (2014). "Income inequality in post-communist Central and Eastern European countries". *Eastern Journal of European Studies* 5, pp. 5–20.

Sarfati, Hedva (2009). "Growing unequal? Income distribution and poverty in OECD countries". *International Labour Review* 148.1/2, p. 199.

Schularick, Moritz and Alan M Taylor (2012). "Credit booms gone bust: monetary policy, leverage cycles, and financial crises, 1870–2008". *The American Economic Review* 102.2, pp. 1029–1061.

Sefil Tansever, Sinem (2017). "Income Distribution in Turkey during the Global Financial Crisis". *Research in Applied Economics* 9.3, pp. 91–107.

Sen, Amartya (1999). *Development as Freedom*. Random House New York.

Shchepeleva, Maria, Mikhail Stolbov, and Laurent Weill (2022). "Has the Global Financial Crisis increased wealth inequality?" *International Economics* 169.C, pp. 148–160.

Singleton, Fred B. (1981). “Socialist Federative Republic of Yugoslavia”. *Marxist Governments: Volume 3: A World Survey*. Ed. by Bogdan Szajkowski. London: Palgrave Macmillan UK, pp. 784–821.

Solt, Frederick (2016). “The Standardized World Income Inequality Database*”. *Social Science Quarterly* 97.5, pp. 1267–1281.

Sopta, Martina and Emanuela Elezovic (2019). “Analysis of the Insurance Industry Concentration as as Assesment Measure of the Success of Company Takeover in the Republic OF Croatia”. *Economic and Social Development: Book of Proceedings*, pp. 280–297.

Srbinoski, Bojan, Klime Poposki, and Gorazd Čibej (2021). “An empirical investigation of determinants of life insurers’ performance: Evidence from selected countries in Central, Eastern, and Southeastern Europe (CESEE)”. *Risk Management and Insurance Review* 24.3, pp. 293–310.

Stiglitz, Joseph E (2012). *The Price of Inequality: How Today’s Divided Society Endangers Our Future*. WW Norton & Company: New York.

Trifonova, Silvia and Atanas Atanassov (2016). “Assessing the Impact of the Global Financial Crisis on Bulgaria‘s Economy from the Sector Perspective”. *International Journal of Emerging Research in Management % Technology* 5.5.

Uckar, Dean and Danijel Petrovic (2022). “Efficiency Of Insurance Companies In Croatia”. *Economic Thought and Practice* 31.1, pp. 49–79.

UNU-WIDER (2015). *Measures of inequality*. eng. Helsinki, Finland.

Uvalic, Milica et al. (2011). “Which development model for the Balkans? Reflections on the twenty years of transition (1989-2009)”. *The Adriatic Balkan Area from Transition to Integration*, pp. 123–137.

Vickers, M. (2011). *The Albanians: A Modern History*. I.B.Tauris.

Wilson, Duncan (1980). *Tito’s Yugoslavia*. Cambridge University Press.

Zaman, Gheorghe and George Georgescu (2009). “The impact of global crisis on Romania’s economic development”. *Annales Universitatis Apulensis: Series Oeconomica* 11.2, p. 611.

Zehri, Chokri (2019). *Impact of financial liberalisation on income inequality: A PVAR approach*. Tech. rep. EERI Research Paper Series.

Appendix

Descriptive Tables

Table 1: Banking Sectors in South Eastern Europe

Country	Banking Sector Share in Financial System Deposits to GDP (%)	Banking Sector Share in Private Credit to GDP (%)	Banking Sector Assets to GDP (%)
Albania	100	98.176	50.013
Bosnia and Herzegovina	100	92.118	48.424
Bulgaria	100	100	51.471
Croatia	100	100	74.442
Montenegro	100	100	49.941
North Macedonia	100	99.647	37.275
Romania	100	92.176	31.392
Serbia	100	100	39.240

Source: World Bank Financial Structure Database (2019)
Deflation method with CPI from source data used in calculations. Averages taken between the years 2000 and 2016.
*Banking sector share in financial system deposits to GDP (%) = (Bank deposits to GDP/Financial System Deposits to GDP)*100*
*Banking sector share in Private Credit to GDP (%) = (Private credit by deposit money banks to GDP/Private credit by deposit money banks and other financial institutions to GDP)*100*

Table 2: Banking and Non-Banking Sectors Share in Financial System Assets

Country	Year	Banking Sector Share in Financial System Assets (%)	Non-Banking Sector Share in Financial System Assets (%)
Albania	2005	75.2	24.8
	2010	85.7	14.3
	2016	91.3	8.7
Bosnia and Herzegovina	2005	77.3	22.7
	2010	84.3	15.7
	2016	87.8	12.2
Bulgaria	2005	64	36
	2010	92.94	17.07
	2016	82.93	17.07
Croatia	2005	80.1	19.9
	2010	77	23
	2016	70.8	29.2
Montenegro	2005	n.a	n.a
	2010	n.a	n.a
	2016	92.02	7.98
North Macedonia	2005	91	9
	2010	89	11
	2016	84.75	15.25
Romania	2005	90.9	9.1
	2010	91.3	6.3
	2016	93.7	6.3
Serbia	2005	84.76	15.24
	2010	91.7	8.3
	2016	91.1	8.9

Source: Ganić (2021)

Table 3: Profitability of Banking Sectors in South Eastern Europe

Country	Year	Net Interest Margin (%)	Bank ROA	Bank ROE
Albania	2000	5.29	2.10	22.51
	2005	4.37	1.61	22.69
	2010	4.54	1.05	9.85
	2015	3.39	0.04	0.31
Bosnia and Herzegovina	2000	6.36	0.72	3.91
	2005	4.83	0.79	7.59
	2010	4.43	-0.55	-4.87
	2015	4.19	-0.55	3.79
Bulgaria	2000	5.55	3.63	18.28
	2005	5.20	1.86	17.83
	2010	4.29	0.86	6.66
	2015	3.44	0.56	4.48
Croatia	2000	4.30	1.52	12.90
	2005	3.38	1.30	14.90
	2010	3.45	0.90	6.44
	2015	2.89	-0.55	-3.46
Montenegro	2000	n.a	n.a	n.a
	2005	5.68	0.35	2.22
	2010	4.23	-4.34	-41.22
	2015	4.34	-0.39	-2.82
North Macedonia	2000	5.60	0.60	3.18
	2005	5.07	1.41	8.68
	2010	4.46	0.98	8.25
	2015	4.17	1.14	9.25
Romania	2000	8.25	2.35	13.07
	2005	7.09	1.93	16.86
	2010	5.27	0.71	6.82
	2015	3.21	1.31	12.63
Serbia	2000	0.58	0.62	4.90
	2005	7.53	0.59	3.11
	2010	5.67	0.80	4.01
	2015	4.01	0.18	0.86

Source: World Bank Financial Structure Database (2019)

Net Interest Margin: Accounting value of bank's net interest revenue as a share of its interest-bearing assets

Bank ROA: Average Return on Assets (Net Income/Total Assets)

Bank ROE: Average Return on Equity (Net Income/Total Equity)

Table 4: Foreign Ownership of Banking Sectors in South Eastern Europe

Country	Year	Total Number of Banks	Number of Foreign Owned Banks	Foreign Banks Ownership of Banking Sector Assets (%)
Albania	1998	10	8	14.4
	2002	13	12	45.9
	2006	17	14	90.5
	2017	n.a	n.a	n.a
Bosnia and Herzegovina	1998	53	9	1.9
	2002	40	21	76.7
	2006	32	22	94
	2017	23	16	86
Bulgaria	1998	34	17	32.5
	2002	34	26	75.2
	2006	32	23	80.1
	2017	25	13	77
Croatia	1998	60	10	39.9
	2002	46	23	90.2
	2006	33	15	90.8
	2017	25	15	90.1
Montenegro	1998	n.a	n.a	n.a
	2002	10	n.a	16.9
	2006	10	8	91.9
	2017	15	9	79
North Macedonia	1998	23	6	11.4
	2002	20	7	44
	2006	19	8	53.2
	2017	15	11	75
Romania	1998	36	16	51.3
	2002	31	24	52.9
	2006	31	26	87.9
	2017	23	16	77
Serbia	1998	104	3	0.5
	2002	50	12	27
	2006	37	22	78.7
	2017	29	21	76

Source: Ganić (2021)

Table 5: Insurance Sectors in South Eastern Europe

Country	Insurance Company Assets to GDP (%)	Life Insurance Premium Volume to GDP (%)	Non-Life Insurance Premium Volume to GDP (%)
Albania	1.538	.047	0.561
Bosnia and Herzegovina	4.684	.258	1.461
Bulgaria	3.283	.304	1.669
Croatia	7.861	.696	1.731
Montenegro	n.a	n.a	n.a
North Macedonia	2.942	.087	1.432
Romania	2.814	.268	1.023
Serbia	3.301	.237	1.498

Source: Global Financial Development (2022) and World Bank Financial Structure Database (2019)
Averages taken between the years 2000 and 2016.

Table 6: Private Investment Funds in South Eastern Europe

Country	Private Pension Funds Assets (Thousand $)	Mutual Fund Assets to GDP (%)
Albania	3.85	2.665
Bosnia and Herzegovina	n.a	4.229
Bulgaria	3631.588	.518
Croatia	8440.498	4.047
Montenegro	n.a	n.a
North Macedonia	429.996	.563
Romania	3164.052	.915
Serbia	172.484	.305

Source: OECD (2024) and Global Financial Development (2022)
Averages taken between the years 2000 and 2016.
Private Pensions Funds Assets: All forms of private investment with a value associated to a pension plan over which ownership of rights are enforced by institutional units, individually or collectively
Mutual Fund Assets to GDP (%): Ratio of mutual fund assets (collectively managed investment scheme that pools money from many investors to purchase securities) to GDP

Table 7: Stock Markets Development in South Eastern Europe

Country	Year	Stock Market Capitalization to GDP (%)	Stock Market Total Value Traded to GDP (%)
Albania	2000	n.a	n.a
	2004	n.a	n.a
	2007/08	n.a	n.a
	2011	n.a	n.a
Bosnia and Herzegovina	2000	n.a	n.a
	2005	14.533	n.a
	2007/08	29.891	n.a
	2011	13.542	n.a
Bulgaria	2000	0.821	0.034
	2004	9.075	1.114
	2007/08	33.465	8.892
	2011	14.023	0.630
Croatia	2000	11.315	0.567
	2004	21.335	0.887
	2007/08	79.102	5.508
	2011	39.483	1.620
Montenegro	2000	n.a	n.a
	2004	n.a	n.a
	2007/08	74.900	7.284
	2011	76.772	1.367
North Macedonia	2000	0.182	1.860
	2004	7.140	0.398
	2007/08	21.206	3.917
	2011	6.099	0.427
Romania	2000	0.784	0.182
	2004	9.435	0.686
	2007/08	13.809	1.121
	2011	7.921	1.280
Serbia	2000	n.a	0.161
	2004	9.193	2.016
	2007/08	53.452	5.360
	2011	9.339	0.786

Source: World Bank Financial Structure Database (2019)
Deflation method with CPI from data source used for calculations in Stock Market Capitalization to GDP (%).
Year 2005 instead of 2004 chosen for Bosnia and Herzegovina due to data availability. Averages taken for the years 2007 and 2008.
Stock Market Capitalization to GDP (%): Value of listed shares to GDP
Stock Market Total Value Traded to GDP (%): Total shares traded on the stock market exchange to GDP

Table 8: International Capital Flows in South Eastern Europe

Country	Year	Foreign Direct Investments Net Capital Inflow (BoP million $)	Equity Investments Net Capital Inflow (BoP million $)
Albania	2002	135	n.a
	2006	325.14	n.a
	2010	1,089.9	6.87
	2014	1,149.93	33.95
Bosnia and Herzegovina	2002	267.77	n.a
	2007	845.96	n.a
	2010	443.84	0
	2014	544.87	2.65
Bulgaria	2002	904.66	-22.93
	2006	7,874.48	147.56
	2010	1,842.9	-0.72
	2014	1,093.6	-76.64
Croatia	2002	980.78	33.27
	2006	3,346.61	408.88
	2010	1,545.05	181.79
	2014	3,179.82	12.85
Montenegro	2002	n.a	n.a
	2007	937.36	3.5
	2010	758.25	-7.84
	2014	226.7	16.99
North Macedonia	2002	114.19	0.04
	2006	427.44	86.32
	2010	301.44	-4.036
	2014	60.88	-7.62
Romania	2002	1,144	21
	2006	11,006.61	302.59
	2010	3,213.74	3.44
	2014	3,869.2	534.84
Serbia	2002	n.a	n.a
	2007	4,423.19	764.18
	2010	1,693.26	84.43
	2014	1,999.54	-21.64

Source: World Development Indicators (2023)

Year 2007 instead of 2006 taken for Bosnia and Herzegovina, Montenegro, and Serbia due to data availability.

Foreign Direct Investments Net Capital Inflows: Net inflow of investments to acquire a lasting management interest in an enterprise operating in an economy other than that of the investor

Equity Investments Net Capital Inflow: Net capital inflows in terms of shares, stocks, depository receipts, and direct purchases of shares in local stock markets by foreign investors

Table 9: Banking Sectors in Different Regions of the World

Country	Banking Sector Share in Financial System Deposits to GDP (%)	Banking Sector Share in Private Credit to GDP (%)	Banking Sector Assets to GDP (%)
North America			
United States of America	100	29.353	59.464
Canada	100	76.333	122.503
Mexico	100	83	30.867
South America and the Caribbean			
Brazil	100	92.118	77.949
Argentina	100	97.235	23.562
Cuba	n.a	n.a	n.a
Europe and West Asia			
United Kingdom	n.a	100	146.916
Germany	100	100	118.287
Turkey	100	96.824	50.543
Middle East and North Africa			
Saudi Arabia	100	68.118	48.461
United Arab Emirates	100	99.882	68.553
Egypt	100	100	70.075
Sub-Saharan Africa			
South Africa	100	49.529	74.348
Nigeria	100	100	16.574
Kenya	100	100	35.579
South Asia			
India	100	100	58.584
Indonesia	100	95.059	33.462
Singapore	96.412	96	126.147
East Asia and Pacific			
China	100	100	125.005
Japan	100	63.529	168.675
Australia	100	96.471	111.402

Source: World Bank Financial Structure Database (2019)

Deflation method with CPI from source data used in calculations. Averages taken between the years 2000 and 2016.

*Banking sector share in financial system deposits to GDP (%) = (Bank deposits to GDP/Financial System Deposits to GDP)*100*

*Banking sector share in Private Credit to GDP (%) = (Private credit by deposit money banks to GDP/Private credit by deposit money banks and other financial institutions to GDP)*100*

Table 10: Profitability of Banking Sectors in EU-15 Countries

Country	Net Interest Margin (%)	Bank ROA	Bank ROE
Belgium	1.33	0.37	9.23
Denmark	1.23	0.47	7.69
Germany	.968	.076	2.10
Finland	.876	.506	8.79
France	.894	.302	8.23
Greece	2.59	-1.00	-7.38
Ireland	.739	-.109	-4.23
Italy	1.82	.268	2.99
Luxembourg	.765	.516	10.640
Netherlands	1.14	.561	7.59
Austria	1.93	.501	8.24
Portugal	1.52	-.117	3.35
Spain	1.74	.469	7.36
United Kingdom	1.46	.540	9.05
Sweden	1.30	.654	16.3

Source: World Bank Financial Structure Database (2019)
Averages taken between the years 2000 and 2016.
Net Interest Margin: Accounting value of bank's net interest revenue as a share of its interest-bearing assets
Bank ROA: Average Return on Assets (Net Income/Total Assets)
Bank ROE: Average Return on Equity (Net Income/Total Equity

Table 11: Insurance Sectors in Different Regions of the World

Country	Insurance Company Assets to GDP (%)	Life Insurance Premium Volume to GDP (%)	Non-Life Insurance Premium Volume to GDP (%)
North America			
United States of America	48.363	3.474	3.282
Canada	46.773	3.029	2.528
Mexico	4.39	.843	0.798
South America and the Caribbean			
Brazil	7.675	.868	1.040
Argentina	3.299	.593	1.666
Cuba	n.a	n.a	n.a
Europe and West Asia			
United Kingdom	91.936	11.574	2.872
Germany	58.269	3.147	1.992
Turkey	2.519	.186	0.846
Middle East and North Africa			
Saudi Arabia	1.657	.029	0.376
United Arab Emirates	4.072	.34	0.952
Egypt	3.184	.369	0.379
Sub-Saharan Africa			
South Africa	45.148	11.235	2.252
Nigeria	1.025	.1	0.393
Kenya	6.758	.787	1.268
South Asia			
India	16.36	2.538	0.452
Indonesia	3.159	.904	0.476
Singapore	41.052	5.514	0.962
East Asia and Pacific			
China	12.579	1.695	0.831
Japan	70.997	5.846	1.565
Australia	32.06	3.737	2.375

Source: Global Financial Development (2022) and World Bank Financial Structure Database (2019)
Averages taken between the years 2000 and 2016.

Table 12: Private Investment Funds in Different Regions of the World

Country	Private Pension Funds Assets (Million $)	Mutual Fund Assets to GDP (%)
North America		
United States of America	17078289	79.806
Canada	1670514.8	44.544
Mexico	114596.41	6.738
South America and the Caribbean		
Brazil	295466.21	37.12
Argentina	21055.806	1.929
Cuba	n.a	n.a
Europe and West Asia		
United Kingdom	1793069.8	31.987
Germany	160385.32	42.545
Turkey	20451.497	2.461
Middle East and North Africa		
Saudi Arabia	n.a	5.429
United Arab Emirates	n.a	n.a
Egypt	4555.652	n.a
Sub-Saharan Africa		
South Africa	239110.75	29.684
Nigeria	17434.128	.177
Kenya	4706.447	n.a
South Asia		
India	93615.007	7.296
Indonesia	10431.379	2.356
Singapore	198891.57	385.361
East Asia and Pacific		
China	62944.654	7.591
Japan	675428.02	14.726
Australia	980820.3	109.101

Source: OECD (2024) and Global Financial Development (2022)
Averages taken between the years 2000 and 2016.
Private Pensions Funds Assets: All forms of private investment with a value associated to a pension plan over which ownership of rights are enforced by institutional units, individually or collectively
Mutual Fund Assets to GDP (%): Ratio of mutual fund assets (collectively manages investment scheme that pools money from many investors to purchase securities) to GDP

Table 13: Stock Markets Development in Different Regions of the World

Country	Private Pension Funds Assets (Million $)	Mutual Fund Assets to GDP (%)
North America		
United States of America	17078289	79.806
Canada	1670514.8	44.544
Mexico	114596.41	6.738
South America and the Caribbean		
Brazil	295466.21	37.12
Argentina	21055.806	1.929
Cuba	n.a	n.a
Europe and West Asia		
United Kingdom	1793069.8	31.987
Germany	160385.32	42.545
Turkey	20451.497	2.461
Middle East and North Africa		
Saudi Arabia	n.a	5.429
United Arab Emirates	n.a	n.a
Egypt	4555.652	n.a
Sub-Saharan Africa		
South Africa	239110.75	29.684
Nigeria	17434.128	.177
Kenya	4706.447	n.a
South Asia		
India	93615.007	7.296
Indonesia	10431.379	2.356
Singapore	198891.57	385.361
East Asia and Pacific		
China	62944.654	7.591
Japan	675428.02	14.726
Australia	980820.3	109.101

Source: OECD (2024) and Global Financial Development (2022)
Averages taken between the years 2000 and 2016.
Private Pensions Funds Assets: All forms of private investment with a value associated to a pension plan over which ownership of rights are enforced by institutional units, individually or collectively
Mutual Fund Assets to GDP (%): Ratio of mutual fund assets (collectively manages investment scheme that pools money from many investors to purchase securities) to GDP

Table 14: Variables Description

Variable Name	Variable Description	Data Source
Dependent Variables		
gini_coeff	Gini Coefficients	WIID UNU-WIDER
s80s20	Income Ratio 80/20 percentiles	WIID UNU-WIDER
palma	Palma Ratio (Income Ratio 90/40 percentiles)	WIID UNU-WIDER
Main Independent Variables		
fin_lib	Financial Liberalization Indicator	Fraser Institute
fin_dev_prcrdt	Financial Development Indicator (Private Credit/GDP)	World Bank
fin_dev_dep	Financial Development Indicator (Bank Deposits/GDP)	World Bank
gfc	Global Financial Crisis Binary Variable	
Control Variables		
gdp_grth	GDP Growth (annual %)	World Bank
agri	Agriculture, Forestry, and Fishing, Value Added (& of GDP)	World Bank
ind	Industry (including construction), Value Added (& of GDP)	World Bank
gdp_per_log	Log GDP per capita (Constant 2015 US$)	World Bank
trade	Trade (% of GDP)	World Bank
net_barter	Net Barter Terms of Trade Index (2015 = 100)	World Bank
nat_res	Total Natural Resources Rents (& of GDP)	World Bank
gvt_cs	General Government Final Consumption Expenditure (% of GDP)	World Bank
civ_lib	Civil Liberties Indicator	Freedom House
exprty	Chief Executive Party Orientation (Left) Binary Variable	DPI
infl	Consumer Prices Inflation (annual %)	World Bank/IMF
pop_log	Log Total Population	World Bank
edu_ter	School Enrollment, Tertiary (% gross)	World Bank
fdi	Foreign Direct Investments, Net Inflows (% of GDP)	World Bank/UNCTAD

Table 15: Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Dependent Variables					
gini_coeff	136	34.98	2.971	28.076	44.598
s80s20	136	5.883	1.251	3.615	9.573
palma	136	1.437	.229	1.03	2.375
Main Independent Variables					
fin_lib	136	7.609	1.166	3.57	9.41
fin_dev_prcrdt	132	40.547	18.237	4.742	86.523
fin_dev_dep	133	40.648	16.878	5.545	72.314
gfc	136	.118	.323	0	1
Control Variables					
gdp_grth	136	3.316	3.218	-7.193	12.765
agri	136	8.971	4.818	2.947	24.515
ind	136	24.073	5.006	14.304	40.212
gdp_per_log	136	8.552	.433	7.581	9.468
trade	136	85.788	19.102	22.492	132.34
net_barter	111	97.447	4.279	83.657	108.143
nat_res	136	1.399	.898	0	5.565
gvt_cs	136	18.386	4.066	9.692	29.941
civ_lib	136	2.331	1.04	0	5
exprty	136	.199	.4	0	1
infl	136	7.151	14.823	-1.6	95.005
pop_log	136	15.213	.974	13.313	16.926
edu_ter	132	43.846	15.884	15.232	81.533
fdi	136	6.277	5.719	.069	37.272

Slovenia not included in the summary statistics table.

Regression Tables

Regression Table 1: Finance and Income Inequality

Independent Variables	(1) GINI	(2) GINI	(3) GINI	(4) GINI	(5) GINI	(6) GINI	(7) GINI
FL	.359**			.52***	.978***	.535**	.958***
	(.138)			(.12)	(.148)	(.146)	(.151)
FD		-.042		-.062*	.077*	-.061*	.069
		(.026)		(.026)	(.034)	(.026)	(.040)
GFC			1.76*	1.729*	1.8**	5.73	4.31
			(.843)	(.834)	(.732)	(4.1)	(3.82)
FL×FD					-.019***		-.018***
					(.003)		(.003)
FL×GFC						-.506	-.318
						(.455)	(.438)
Observations	107	105	107	105	105	105	105
R-squared	.497	.492	.543	.567	.581	.570	.582
Hausman Test (p-value)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Controls	YES	YES	YES	YES	YES	YES	YES

*Country-level clustered standard errors are in parentheses. Time lags included for all main independent variables. Slovenia is not included in the analysis. *** p<.01, ** p<.05, * p<.1*

Regression Table 2: Financial Liberalization and Global Financial Crisis

Independent Variables	(1) GINI	(2) GINI	(3) GINI	(4) GINI	(5) GINI	(6) GINI	(7) GINI	(8) GINI
FL	.52***	.643***	-.322	-.363	.939***	.99***	1.129*	.621
	(.12)	(.106)	(.436)	(.34)	(.203)	(.155)	(.482)	(1.012)
FD	-.062*	-.056	-.091**	-.063*	-.052	-.068*	-.069*	-.158
	(.026)	(.029)	(.026)	(.032)	(.029)	(.029)	(.029)	(.127)
GFC	1.729*	.82	1.268*	.615	1.275	.737	.724	.598
	(.834)	(.746)	(.594)	(.583)	(.691)	(.586)	(.588)	(.577)
PRE			-10.914**	-10.498***			-.944	-3.329
			(4.086)	(2.607)			(4.09)	(6.546)
POST					12.391***	13.019***	12.362***	12.984***
					(2.047)	(1.916)	(3.208)	(3.425)
FL×FD								.012
								(.018)
FL×GFC		.248***		.276***		.244**		
		(.056)		(.06)		(.081)		
FL×PRE			1.181*	1.347***			-.127	.186
			(.55)	(.345)			(.54)	(.868)
FL×POST					-1.765***	-1.669***	-1.83***	-1.94***
					(.221)	(.178)	(.426)	(.464)
Observations	105	105	105	105	105	105	105	105
R-squared	.567	.608	.617	.644	.64	.668	.669	.671
Hausman Test (p-value)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Controls	YES	YES	YES	YES	YES	YES	YES	YES

*Country fixed-effects model. Country-level clustered standard errors in parentheses. Time lag excluded for GFC in FL × GFC. Slovenia not included in analysis. *** p<.01, ** p<.05, * p<.1*

Regression Table 3: First Difference Method

Independent Variables	(1) GINI	(2) GINI	(3) GINI	(4) GINI	(5) GINI	(6) GINI
FL	.689***	.804***	-.072	.460***	.928	1.433
	(.126)	(.114)	(.60)	(.122)	(.487)	(.781)
FD	.124*	.143*	-.010	-.025	-.019	.073
	(.057)	(.064)	(.026)	(.026)	(.026)	(.114)
GFC	2.932	.237	.108	.0.890	.053	.114
	(3.49)	(.275)	(.330)	(.313)	(.291)	(.297)
PRE			-2.581		3.096	5.064
			(4.159)		(3.613)	(4.522)
POST				11.090***	12.335**	11.045**
				(2.883)	(3.635)	(4.279)
FL×FD	-.02**	-.022**				-.013
	(.008)	(.008)				(.015)
FL×GFC	-.317	.129*	.174	.119		
	(.451)	(.061)	(.113)	(.073)		
FL×PRE			.393		-.500	-.755
			(.582)		(.492)	(.607)
FL×POST				-1.453***	-1.737***	-1.554**
				(.375)	(.435)	(.521)
Observations	96	96	96	96	96	96
R-squared	.515	.515	.501	.539	.541	.544
Controls	YES	YES	YES	YES	YES	YES

*First-difference method. Country-level clustered standard errors in parentheses. Time lag excluded for GFC in FL x GFC in (2) – (6). *** p<.01, ** p<.05, * p<.1*

Regression Table 4: Including all Former Yugoslav Republics

Independent Variables	(1) GINI	(2) GINI	(3) GINI	(4) GINI	(5) GINI	(6) GINI
FL	.515**	.723***	-.662	.432	-.138	.028
	(.213)	(.186)	(.474)	(.31)	(.928)	(.793)
FD	.073	.129*	-.033	-.036	-.034	-.007
	(.047)	(.06)	(.023)	(.022)	(.024)	(.103)
GFC	8.359	.919	.662	.802	.698	.734
	(5.27)	(.685)	(.648)	(.724)	(.655)	(.651)
PRE			-9.972**		-7.147	-6.261
			(2.939)		(5.802)	(5.334)
POST				9.134*	4.129	4.056
				(3.996)	(6.839)	(6.997)
FL×FD	-.012**	-.019***				-.003
	(.004)	(.005)				(.012)
FL×GFC	-.838	.185**	.178*	.193*		
	(.615)	(.07)	(.084)	(.086)		
FL×PRE			1.199**		.674	.561
			(.409)		(.748)	(.693)
FL×POST				-1.094*	-.684	-.674
				(.545)	(.901)	(.921)
Observations	118	118	118	118	118	118
R-squared	.52	.534	.55	.543	.553	.554
Controls	YES	YES	YES	YES	YES	YES

*Slovenia included in analysis. Country-level clustered standard errors in parentheses. Time lag excluded for GFC in FL x GFC in (2) – (6). *** p<.01, ** p<.05, * p<.1*

Regression Table 5: Alternative Financial Development Measurement

Independent Variables	(1) GINI	(2) GINI	(3) GINI	(4) GINI	(5) GINI	(6) GINI	(7) GINI
FL		.414**	1.068***	1.114***	-.452	.925***	.696
		(.126)	(.234)	(.23)	(.345)	(.2)	(1.106)
FD	-.012	-.021	.185**	.167**	-.022	-.022	-.092
	(.016)	(.018)	(.066)	(.064)	(.013)	(.014)	(.157)
GFC		1.675*	1.476*	.644	.512	.619	.603
		(.783)	(.633)	(.507)	(.531)	(.539)	(.555)
PRE					-10.168***		-2.699
					(1.837)		(6.553)
POST						12.28***	12.431**
						(1.833)	(3.497)
FL×FD			-.027**	-.024**			.009
			(.009)	(.009)			(.02)
FL×GFC				.235**	.329***	.209**	
				(.074)	(.068)	(.07)	
FL×PRE					1.39***		.121
					(.242)		(.829)
FL×POST						-1.673***	-1.91***
						(.22)	(.5)
Observations	107	107	107	107	107	107	107
R-squared	.49	.554	.582	.618	.635	.655	.656
Controls	YES	YES	YES	YES	YES	YES	YES

Banking sector deposits to GDP ratio used for FD. Country-level clustered standard errors in parentheses. Time lag excluded for GFC in FL × GFC in (4) - (7). Slovenia is not included in the analysis.
****p<.01, **p<.05, *p<.1*

Regression Table 6: Alternative Measurements for Income Inequality

Independent Variables	(1) S80S20	(2) S80S20	(3) S80S20	(4) S80S20	(5) PALMA	(6) PALMA	(7) PALMA	(8) PALMA
FL	.286***	.476***	.129	.406***	.031**	.095***	-.061*	.071***
	(.074)	(.103)	(.085)	(.087)	(.012)	(.012)	(.03)	(.011)
FD	-.016**	.032	-.021**	-.023**	-.005**	.012**	-.005	-.005*
	(.006)	(.018)	(.008)	(.007)	(.002)	(.004)	(.002)	(.002)
GFC	.349	.096	.048	.073	.166	.105	.072	.084
	(.265)	(.212)	(.208)	(.205)	(.087)	(.065)	(.059)	(.063)
PRE			-2.384**				-1.011***	
			(.957)				(.238)	
POST				3.656**				1.08***
				(1.413)				(.121)
FL×FD		-.006*				-.002***		
		(.003)				(0)		
FL×GFC		.075***	.055**	.096***		.019***	.026***	.016**
		(.014)	(.022)	(.021)		(.005)	(.006)	(.006)
FL×PRE			.258**				.136***	
			(.096)				(.032)	
FL×POST				-.417**				-.146***
				(.159)				(.014)
Observations	105	105	105	105	105	105	105	105
R-squared	.611	.646	.649	.667	.551	.619	.643	.656
Controls	YES	YES	YES	YES	YES	YES	YES	YES

Country clustered standard errors are in parentheses. Slovenia excluded from the analysis. Time lag excluded for GFC in FL × GFC in (2)-(4), and (6)-(8).
****p<.01, **p<.05, *p<.1*

Figures

Figure 1: Banking Sector Concentration (%)

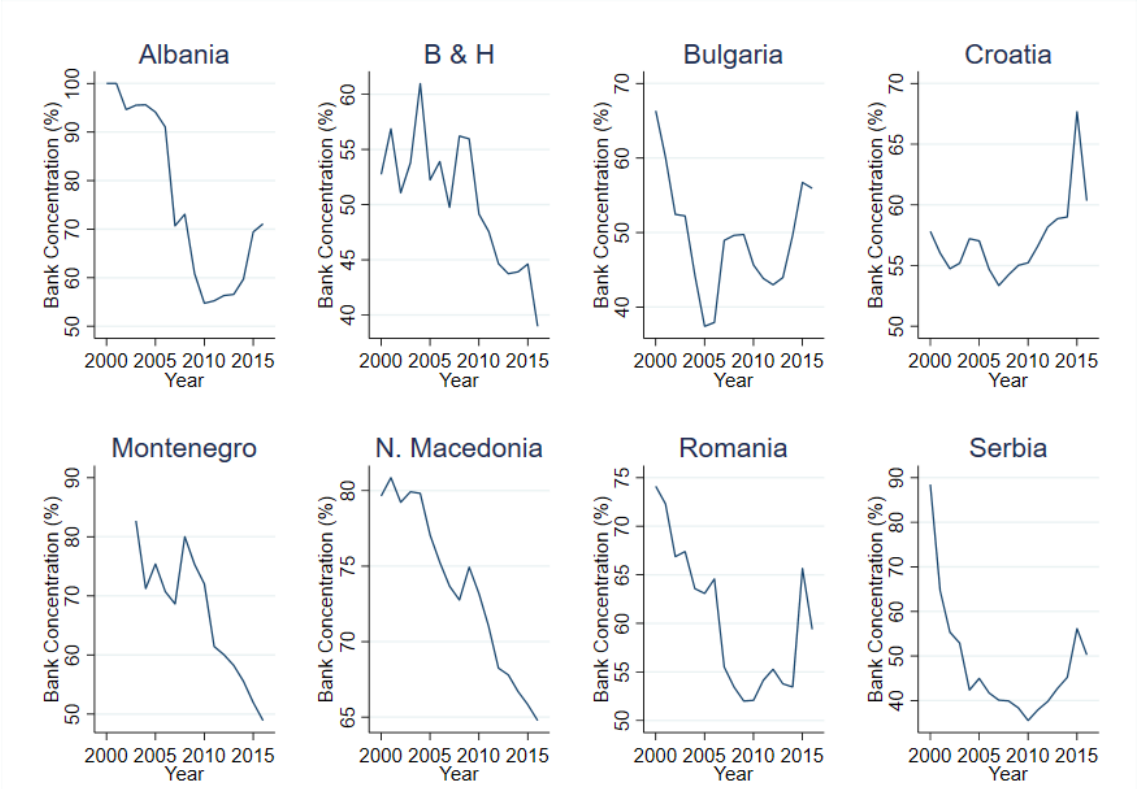

Figure 1 illustrates the concentration of banks within the countries of South Eastern Europe. The bank concentration measurement represents a ratio of assets of the three largest banks to the total assets of all commercial banks. The data for the construction of this figure was collected between the years 2000 and 2016 from the World Bank Financial Structure Database (2019).

Figure 2: Private Credit to GDP (%)

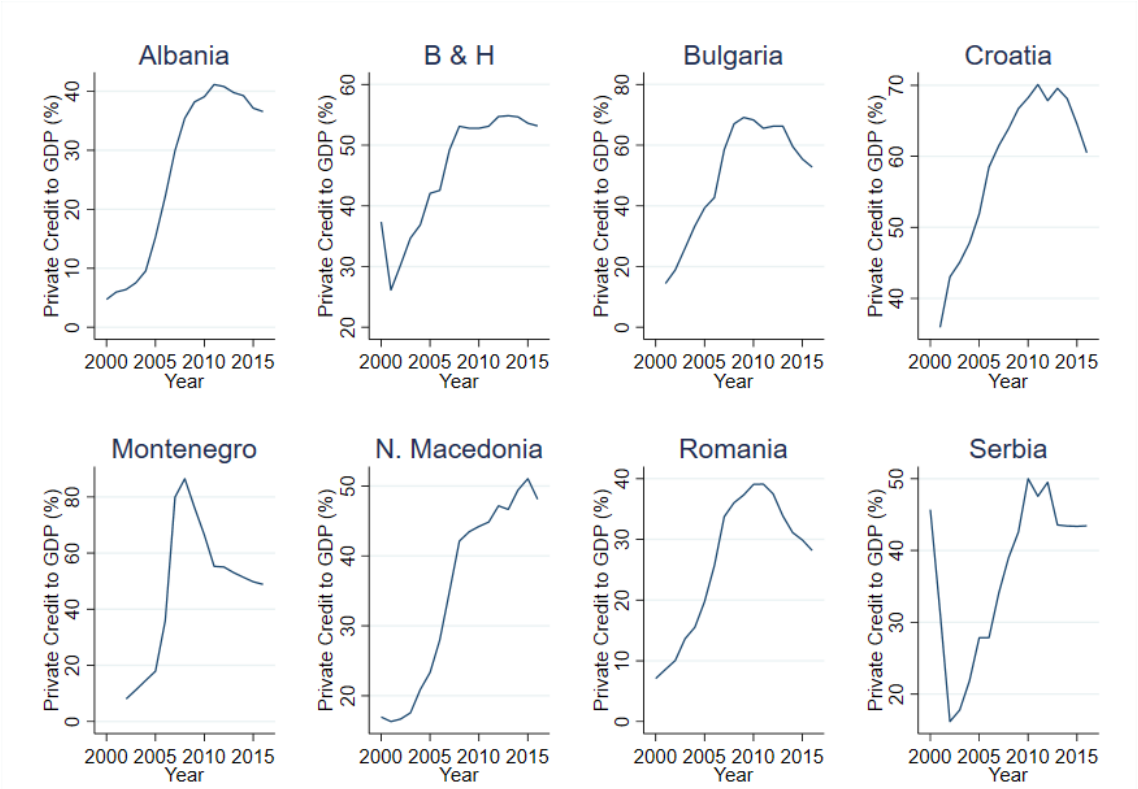

Figure 2 illustrates the development of the private credit to GDP (%) measurement across the countries in South Eastern Europe. Private credit to GDP (%) stands for domestic credit issued to the private sector by financial institutions as a share of GDP. This measurement is often considered as the best proxy for measuring financial development. The data for this figure was collected between the years 2000 and 2016 from the World Bank.

Figure 3: Income Inequality Measured by the Gini Coefficients

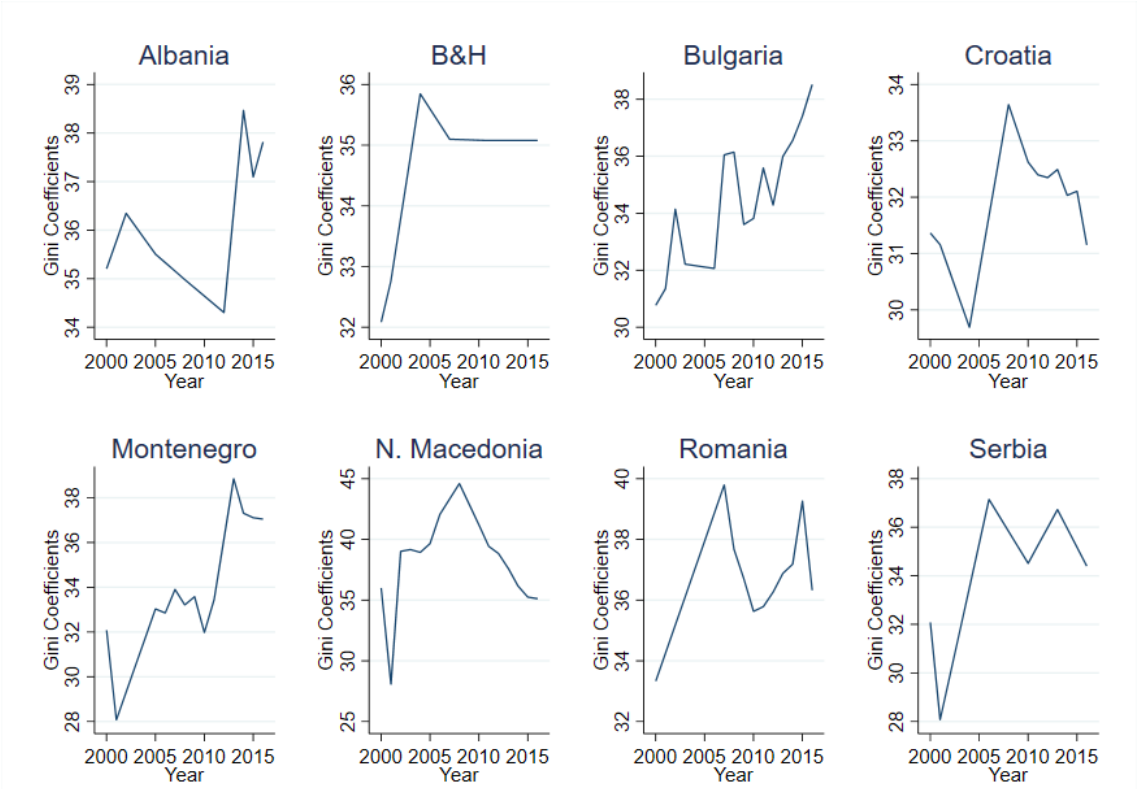

Figure 3 illustrates the Gini coefficients across the countries in South Eastern Europe. The Gini coefficients are measurements of income inequality ranging from 0 to 100. The data for this figure was collected between the years 2000 and 2016 from the United Nations University World Institute for Development Economics Research (UNU-WIDER).

Figure 4: Income Inequality Measured by the S80/S20 Ratio

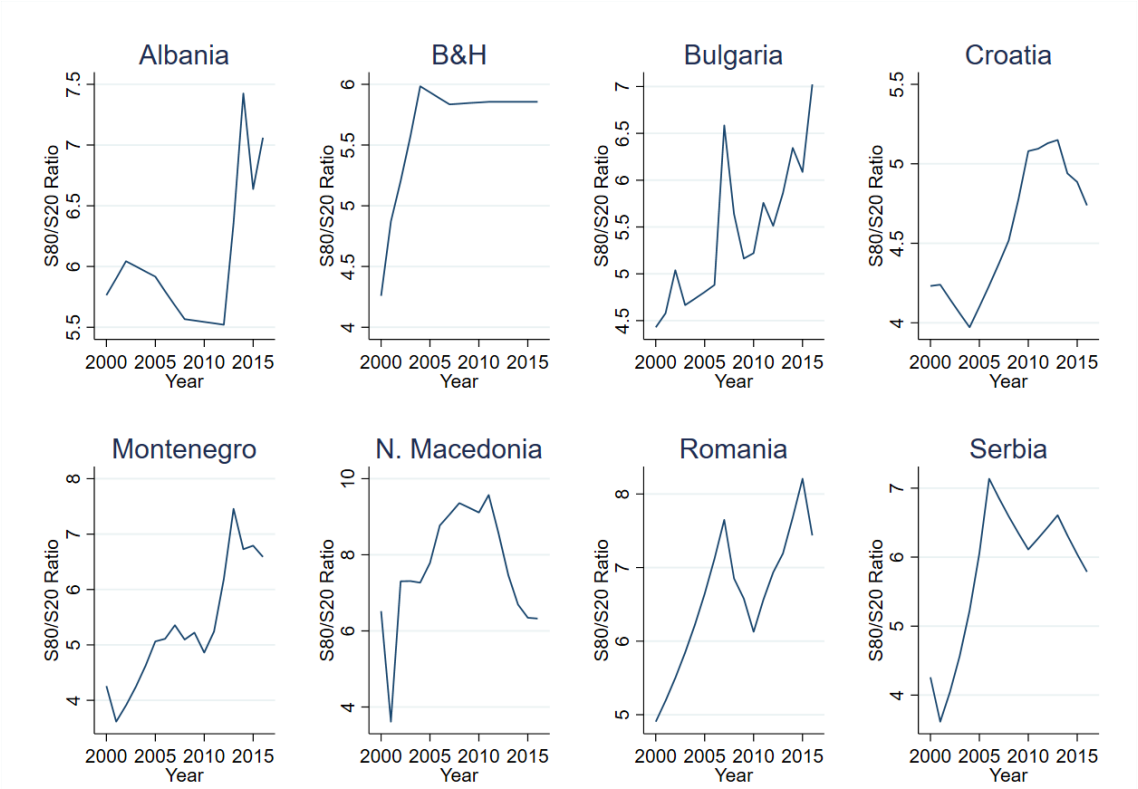

Figure 4 illustrates the S80/S20 ratio across the countries in South Eastern Europe. This measurement of income inequality represents a ratio of the total income received by the top 80% to the total income receivd by the bottom 20% of the population. The data for this figure was collected between the years 2000 and 2016 from the United Nations University World Institute for Development Economics Research (UNU-WIDER).

Figure 5: Income Inequality Measured by the Palma Ratio

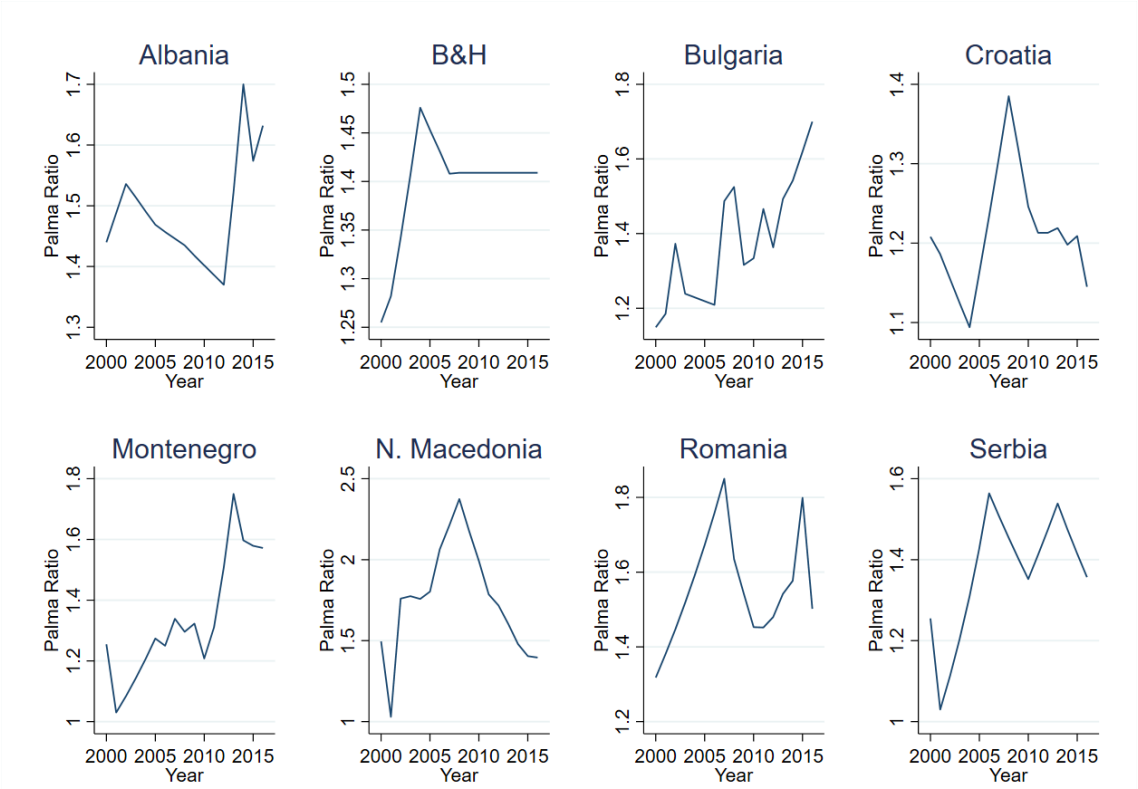

Figure 5 illustrates the Palma ratio across the countries in South Eastern Europe. This measurement of income inequality represents a ratio of income received by the top 10% to the bottom 40% of the income distribution in the population. The data for this figure was collected between the years 2000 and 2016 from the United Nations University World Institute for Development Economics Research (UNU-WIDER).

Figure 6: Financial Liberalization Index

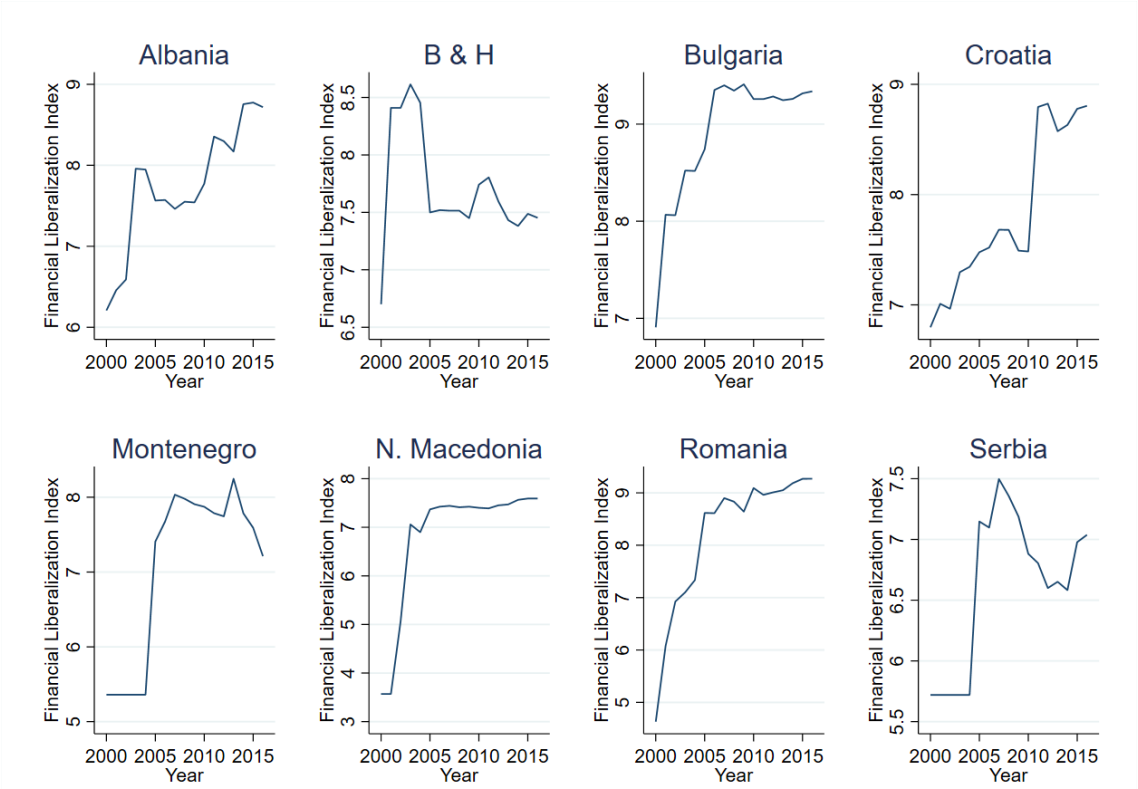

Figure 6 illustrates the financial liberalization index for the countries in South Eastern Europe. The financial liberalization index is obtained from averages of four sub-indices measuring freedom in their respective areas. The values in these sub-indices vary in the range from 0 to 10. This index was constructed with data from the Fraser Institute.

Figure 7: Correlation Finance and Income Inequality (GINI)

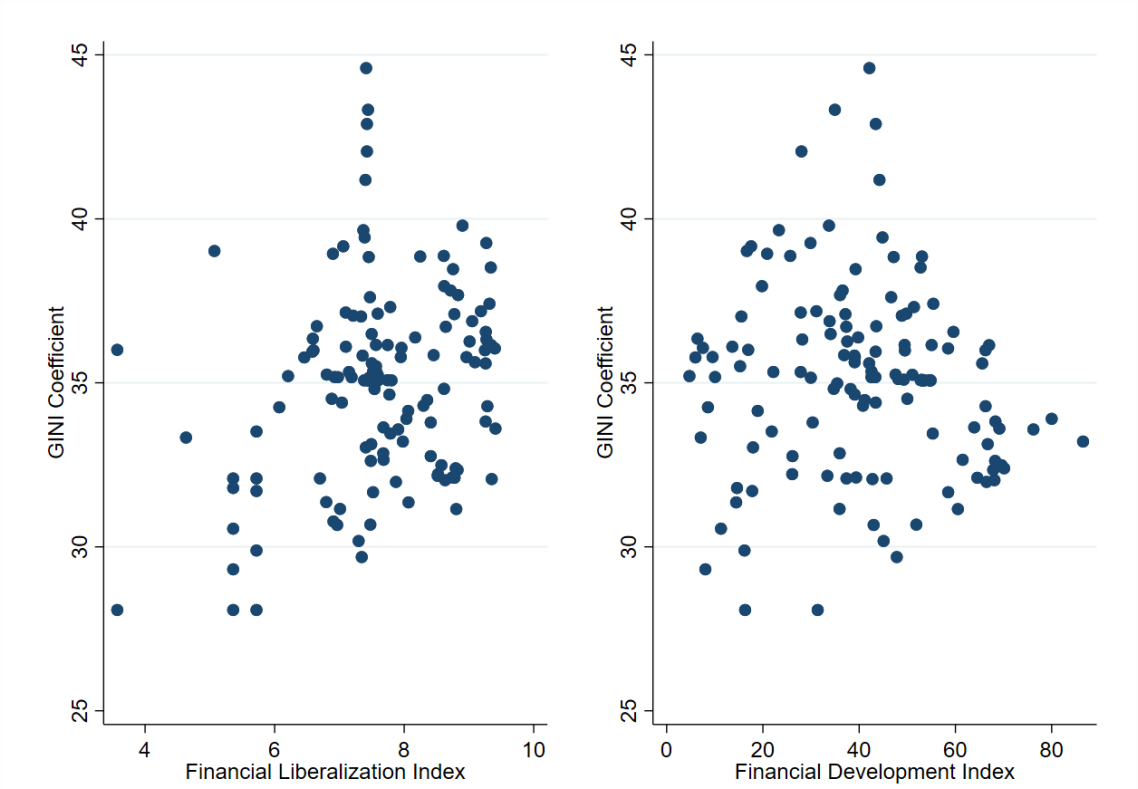

Figure 7 contains two distinct scatterplots that illustrate the correlation between the financial liberalization index and income inequality, and the financial development measurement and income inequality. Financial development is proxied by private credit to GDP. Income inequality here is measured by the Gini coefficients. The data for Slovenia is not included for the correlation between the respective variables.

Figure 8: Correlation Finance and Income Inequality (S80/S20)

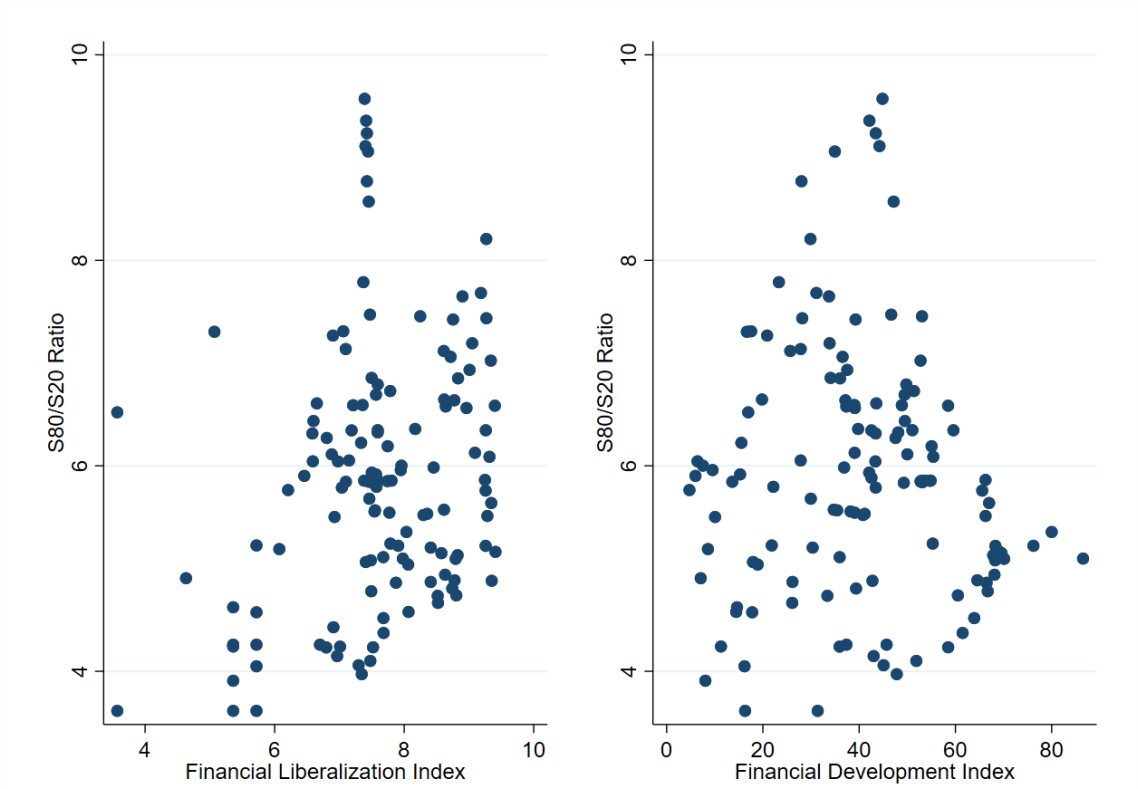

Figure 8 contains two distinct scatterplots that illustrate the correlation between the financial liberalization index and income inequality, and the financial development measurement and income inequality. Financial development is proxied by private credit to GDP. Income inequality here is measured by the S80/S20 ratio. Data for Slovenia is not included for these scatterplots.

Figure 9: Correlation Finance and Income Inequality (Palma)

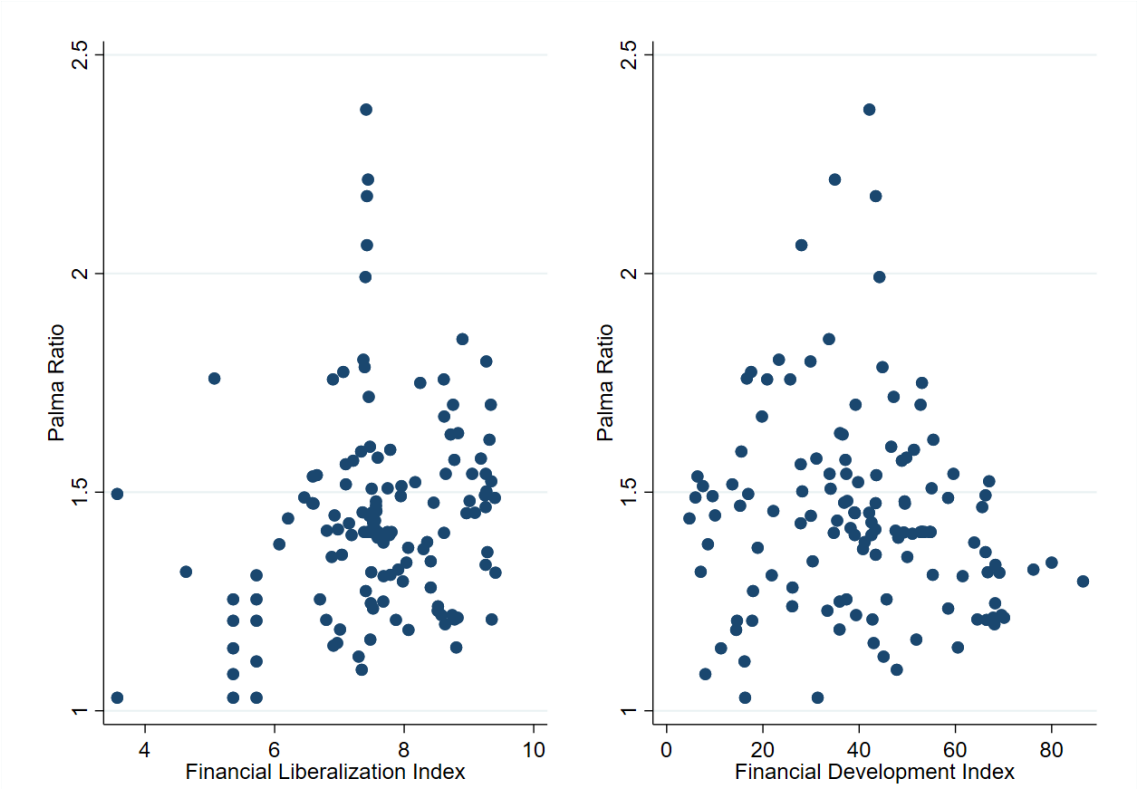

Figure 9 contains two distinct scatterplots that illustrate the correlation between the financial liberalization index and income inequality, and the financial development measurement and income inequality. Financial development is proxied by private credit to GDP. Income inequality here is measured by the Palma ratio. Data for Slovenia is not included for these scatterplots.

Figure 10: Combined Banking Sector Concentration (%) Indices

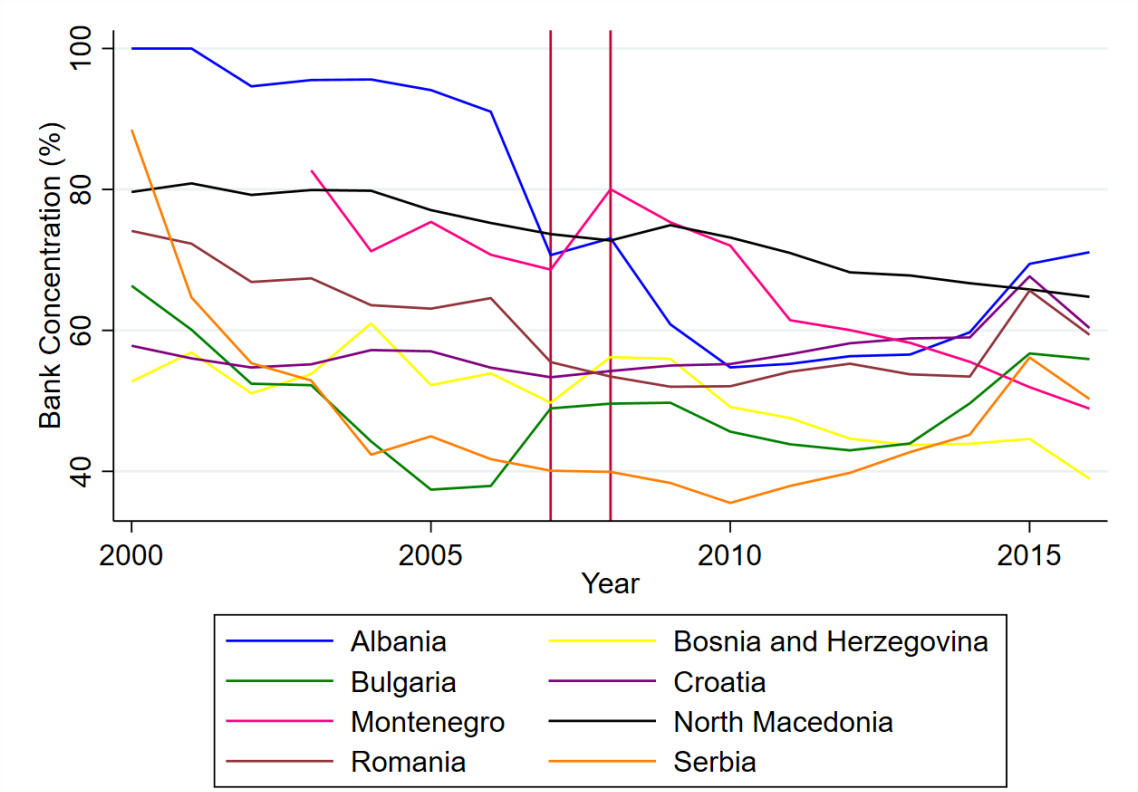

Figure 10 illustrates the combined indices for concentration of banks across the countries in South Eastern Europe in one figure. Bank concentration stands for the assets of the three largest banks as a share of the total assets of all commercial banks. The cut-off vertical lines are time indicators for the global financial crisis in 2007 and 2008. The data for this figure was collected between the years 2000 and 2016 from the World Bank Financial Structure Database (2019).

Figure 11: Combined Private Credit to GDP (%) Measurements

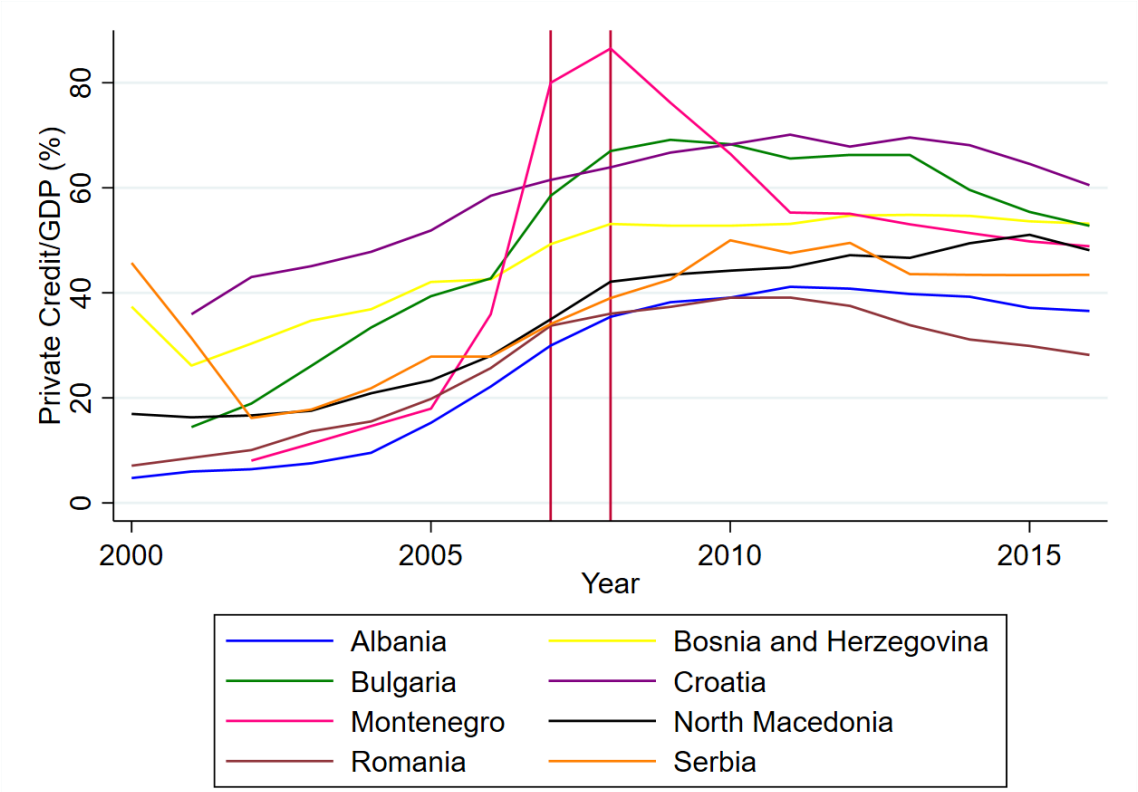

Figure 11 illustrates the combined measurements of private credit to GDP (%) across the countries in South Eastern Europe in one figure. Private credit to GDP (%) stands for domestic credit issued to the private sector by financial institutions as a share of GDP. This measurement is often considered as the best proxy for measuring financial development. The cut-off vertical lines are time indicators for the global financial crisis in 2007 and 2008. The data for this figure was collected between the years 2000 and 2016 from the World Bank.

Figure 12: Combined Income Inequality Measured by the Gini Coefficients

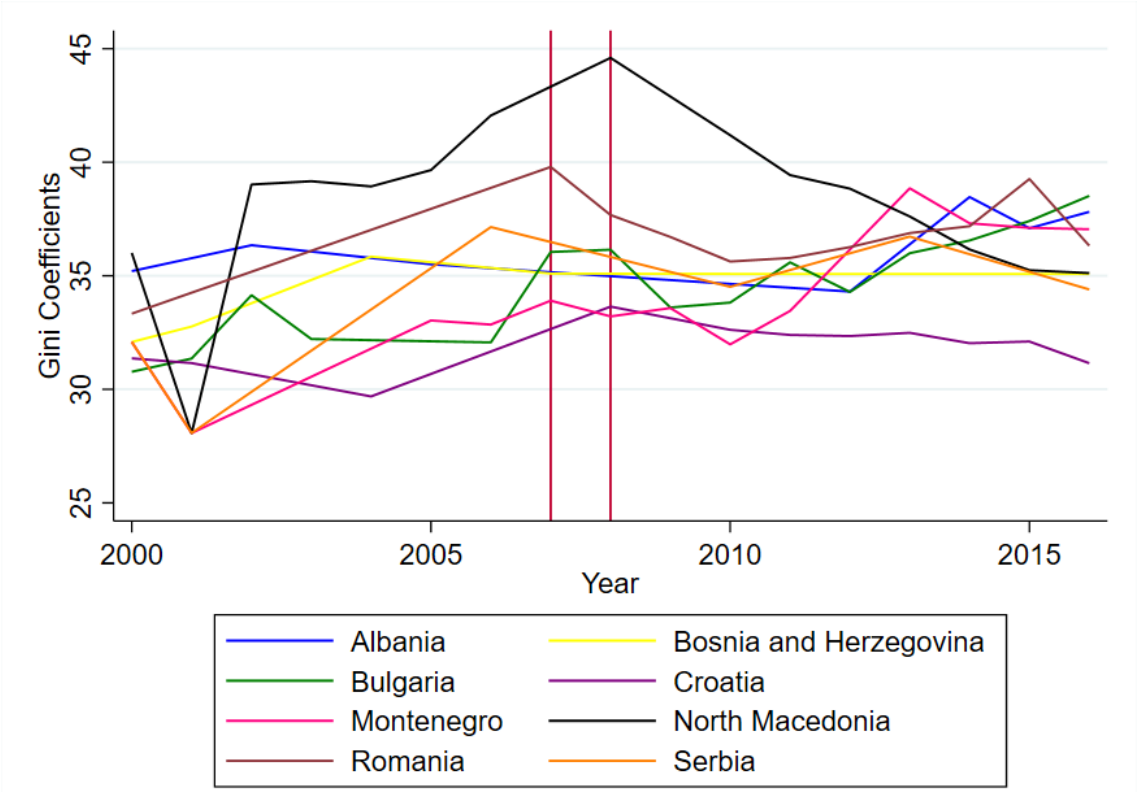

Figure 12 illustrates the combined Gini coefficients for the countries of South Eastern Europe in one figure. The Gini coefficients are measurements of income inequality ranging from 0 to 100. The cut-off vertical lines are time indicators for the global financial crisis in 2007 and 2008. The data for this figure was collected between the years 2000 and 2016 from the United Nations University World Institute for Development Economics Research (UNU-WIDER).

Figure 13: Combined Income Inequality Measured by the S80S20 Ratios

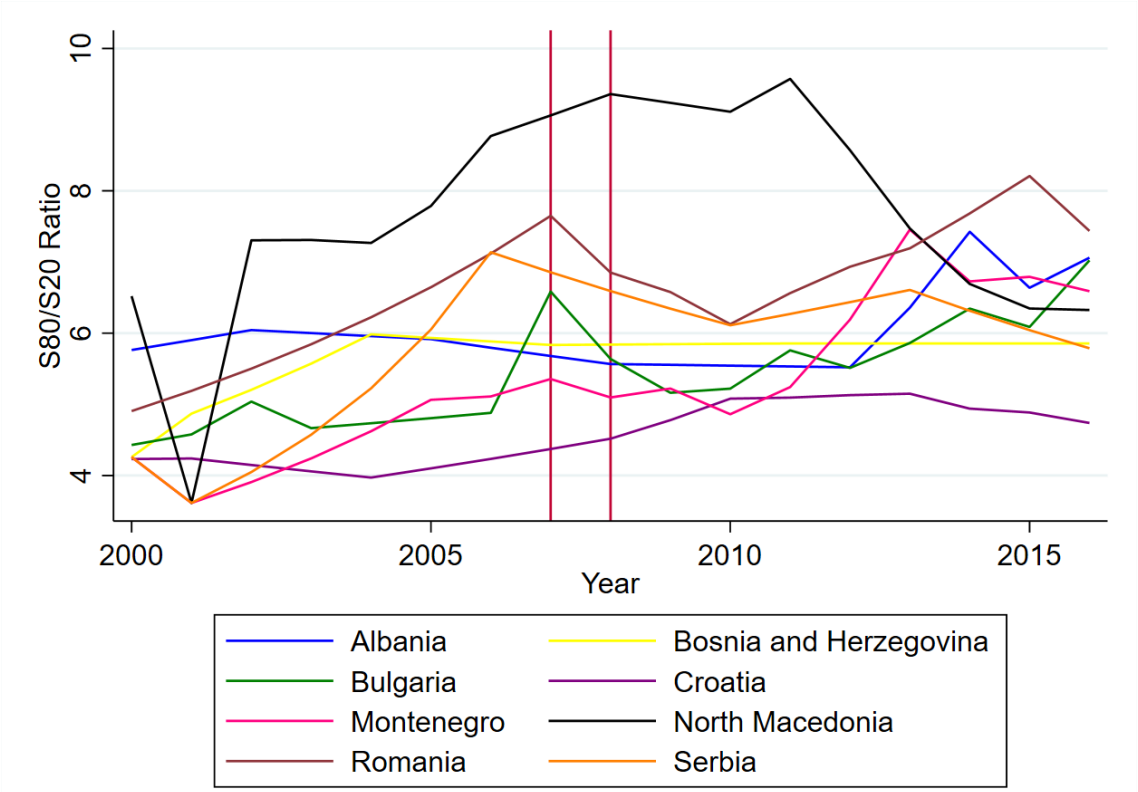

Figure 13 illustrates the combined S80/S20 ratios for the countries of South Eastern Europe in one figure. The S80/S20 measurement of income inequality represents the ratio of the total income received by the top 80% to the total income received by the bottom 20% of the population. The cut-off vertical lines are time indicators for the global financial crisis in 2007 and 2008. The data for this figure was collected between the years 2000 and 2016 from the United Nations University World Institute for Development Economics Research (UNU-WIDER).

Figure 14: Combined Income Inequality Measured by the Palma Ratios

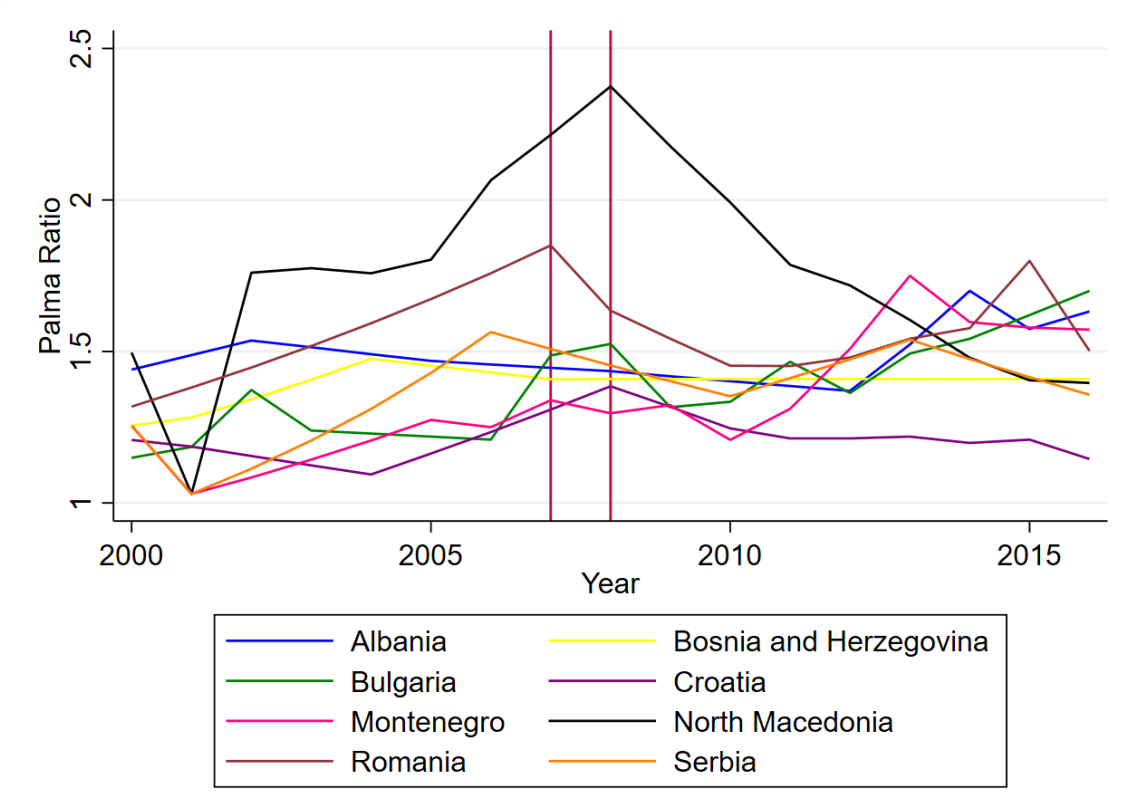

Figure 14 illustrates the combined Palma ratios for the countries of South Eastern Europe in one figure. This measurement of income inequality is a ratio of the income received by the top 10% to the bottom 40% of the income distribution in a population. The cut-off vertical lines are time indicators for the global financial crisis in 2007 and 2008. The data for this figure was collected between the years 2000 and 2016 from the United Nations University World Institute for Development Economics Research (UNU-WIDER).

Figure 15: Combined Financial Liberalization Indices

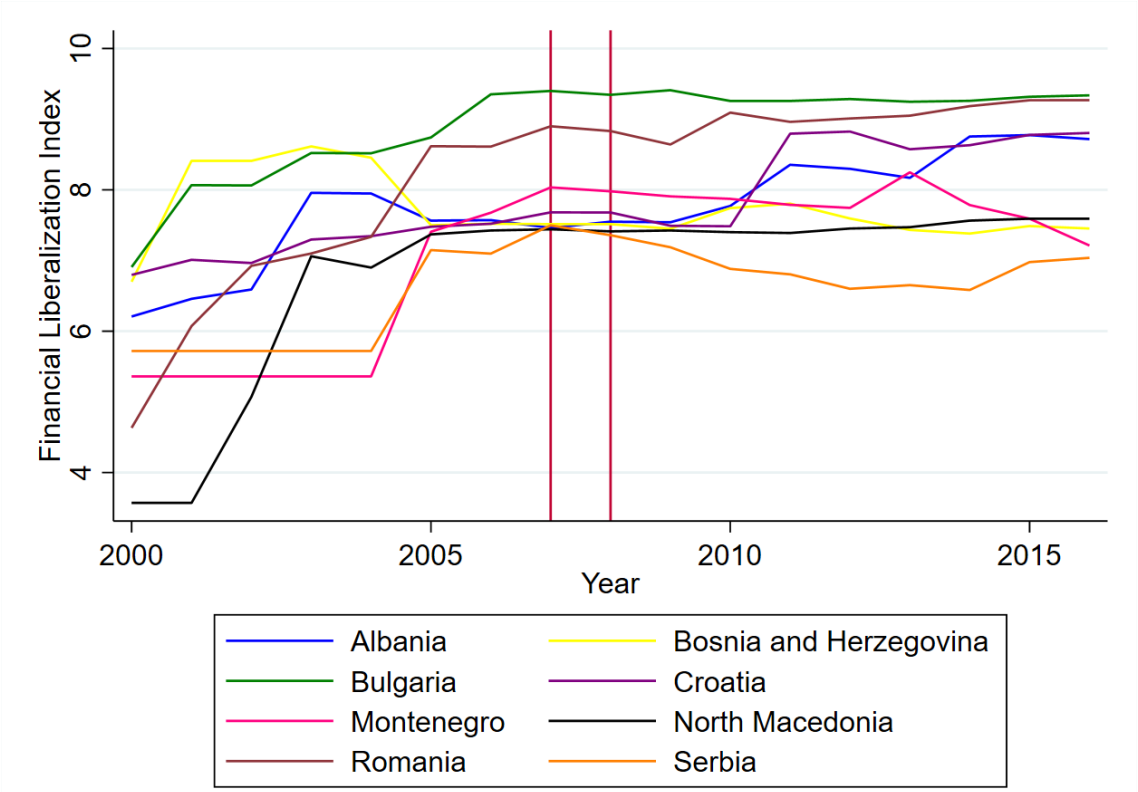

Figure 15 illustrates the combined financial liberalization indices for the countries of South Eastern in one figure. The financial liberalization index is obtained from averages of four sub-indices measuring freedom in their respective areas. The values in these sub-indices vary in the range from 0 to 10. The cut-off vertical lines are time indicators for the global financial crisis in 2007 and 2008. This index was constructed with data from the Fraser Institute.

Statement of Authorship

I hereby confirm that the work presented has been performed and interpreted solely by myself except for where I explicitly identified the contrary. I assure that this work has not been presented in any other form for the fulfillment of any other degree or qualification. Ideas taken from other works in letter and in spirit are identified in every single case.

Place, Date	Haris Rizvanski