THE STRUCTURE OF FINANCIAL INSTRUMENTS IN FINANCIAL SYSTEMS IN SELECTED EUROPEAN COUNTRIES – COMPARATIVE ANALYSIS

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Abstract: The significance of financial systems in the contemporary world is distinctly illustrated by the fact that financial assets and liabilities often surpass the entire economy. The recent decades have witnessed a rapid liberalization of financial markets and the globalization of the world economy, which has led to a rigorous importance of financial instrument in the whole economy. The role of financial instruments in shaping economic developments is evident during both upturns and downturns. Firstly, variations persist among European nations in the ratio of financial assets and liabilities to GDP. Countries like the UK, France, Belgium, and Denmark exhibit higher indebtedness ratios, attributed to advanced markets, the presence of non-bank financial intermediaries, and a long-standing tradition of commercial openness. In contrast, the Balkan region tends to have lower financial liabilities to GDP ratios. Secondly, the analysis reveals improvements in net financial worth across all countries except North Macedonia. Notably, Germany, Bulgaria, Croatia, and Italy consistently maintained a net lender position throughout the period, while other countries experienced variations, with North Macedonia witnessing a continuous deterioration in net financial worth. Furthermore, national disparities persist in the composition of financial assets and liabilities by instrument. Between 2013 and 2021, a noteworthy trend was the reduction in loans and debt securities, coupled with an increase in equity and investment funds. This shift was particularly pronounced in Belgium, Denmark, Germany, France, and the USA, with Turkey being the exception showing an opposite trend. Addressing concerns about the financial position of the non-financial corporations and the household sector, here has been a clear increase in equity and investment funds in non-financial corporations, simultaneously, reliance on loans has generally decreased, except for Turkey, which exhibits the opposite trend. Equity and investment funds emerged as the preferred investments for households, followed by insurance technical reserves. Deposits and debt securities decreased during the period 2013-2021. Notably, even in North Macedonia, which has an intermediary-based financial system, equity and investment funds play a dominant role in the overall financial system. This is influenced by idiosyncratic factors, such as the significance of small firms issuing other equity. Despite these insights, financial accounts data remain underutilized in the analysis of financial structures. Future research could explore more sophisticated measurements of financial ratios using financial accounts data. Recognizing the strong interconnections between sectors, assessing financial interrelations becomes crucial for a comprehensive understanding of markets and identifying system-wide risks.
Keywords: Financial assets/liabilities, net financial worth, financial instruments, non-financial corporations, households

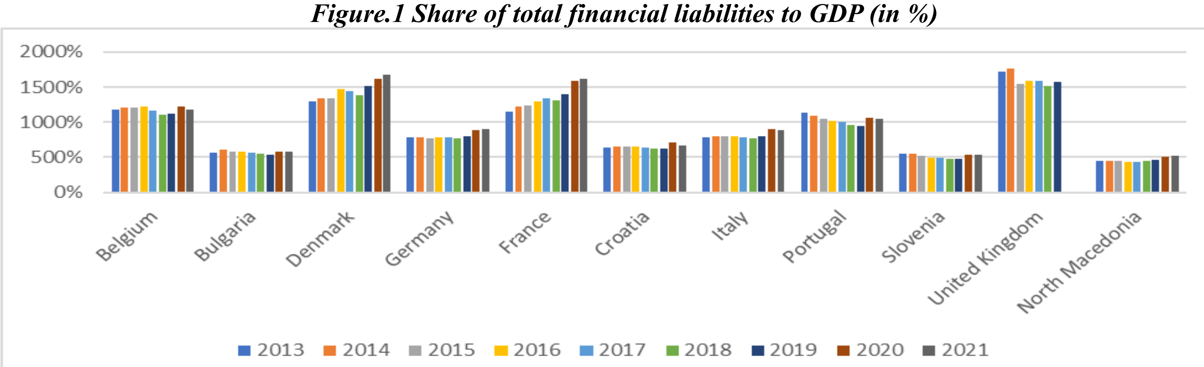
1. INTRODUCTION

The financial markets have undergone a significant transformation in recent decades, driven by liberalization and deregulation, Abbas and Malik, 2008. The rapid evolution of financial instruments has played a crucial role in achieving the primary goals of a financial system, which include the efficient transformation and allocation of various financial assets across time and place. This process aims to mobilize savings, diversify risks, and create a financial environment conducive to overall economic performance, Zhuang, 2009. The globalization of real economic and financial activities is evident in the substantial increase in cross-border fund flows. While this internationalization has enhanced the effectiveness of the financial system in supporting economic goals, it has also introduced vulnerabilities. Financial funds, whether domestic or international, not only fulfill the borrowing and lending needs of the real economy but also pose risks due to the interconnected nature of finance. Various factors can trigger a sudden stop or withdrawal of financial funds from specific economic sectors or entire countries, potentially leading to detrimental consequences. Without additional financial support, likely from other countries or international institutions, such scenarios can destabilize the financial system, adversely impacting the real economy, finance, and savings – roles that were previously supported. Recognizing these risks, the topic of financial stability has gained prominence in international initiatives, policies, and agendas, Leika, 2008. However, the complexity, rapid development, and sudden changes in the financial system pose challenges in evaluating its instruments, participants, infrastructure, and systemic features. This complexity adds uncertainties for policymakers in their decision-making processes. Hence, in Section 2, we will analyze the relationship between financial indebtedness and economic growth. Following that, Section 3 will examine the prevailing types and changes of the structure of financial instruments in selected countries, between 2013-2021. The concluding section summarizes the key findings.

2. THE INDEBTEDNESS AND ECONOMIC GROWTH

Financial systems play a crucial role in transferring resources from savers to entities requiring funds, directing household savings to businesses, and distributing liquidity among firms, Levine, 1997. They enable the smoothing of consumption over time for households and the management of expenditures for non-financial corporations, Hollo, 2007. The substantial evolution of financial markets, institutions, and infrastructures in recent decades has significantly amplified the importance of finance in the economy. In many instances, the growth rate of financial assets and/or liabilities has outpaced the gross domestic product (GDP) growth rate. Extensive literature, under ongoing scrutiny, suggests a connection between economic growth and the size and development of the financial system, measured by factors such as financial innovation and corporate governance rules. While a sufficiently large financial system is deemed necessary for a country's economic growth, it is not a standalone determinant, as seen in Japan's economic downturn following the expansive financial system growth in the 1980s, Goldsmith, 1969. Early observations by, Goldsmith, 1969, highlighted a statistical relationship between "financial deepening" and economic growth, sparking debates on causality. Despite methodological challenges, the prevailing consensus suggests that financial development contributes to economic growth, Giannetti et al., 2002. The "new comparative economics" emphasizes the significant influence of institutions, including financial intermediaries, on economic development, North, 1990 and Djankov et al., 2003. Assessing the contribution of finance to the real economy can take various forms, from simple ratios to complex models. This chapter opts for a straightforward evaluation by examining financial deepening ratios (e.g., gross debt-to-GDP ratio) and national accounts data on net lending/net borrowing and their dynamics. In certain cases, using the net financial position (financial assets minus financial liabilities) as a more accurate variable for evaluating indebtedness is considered. However, caution is advised, particularly in financial stability and risk assessment, as differences in financial assets and liabilities could lead to overestimations of the ability to use assets to mitigate negative shocks, Houben et al., 2004. From 2013 to 2021, financial liabilities in selected European countries, including North Macedonia, experienced growth. During the same period, the GDP growth rate, in both real and nominal terms, was notably lower. Consequently, there was a rise in overall indebtedness (financial liabilities) or a decrease in net financial assets relative to GDP. This trend was particularly pronounced in France, Germany, and Denmark, while Portugal and Slovenia were the exceptions, with a lower ratio than in 2013. In 2021, the total financial liabilities of the most developed economy were over 10 times its nominal GDP, while in less developed economies, the ratio was approximately 5 times, and in North Macedonia, the lowest, at 522 percent of GDP (see Figure 1).

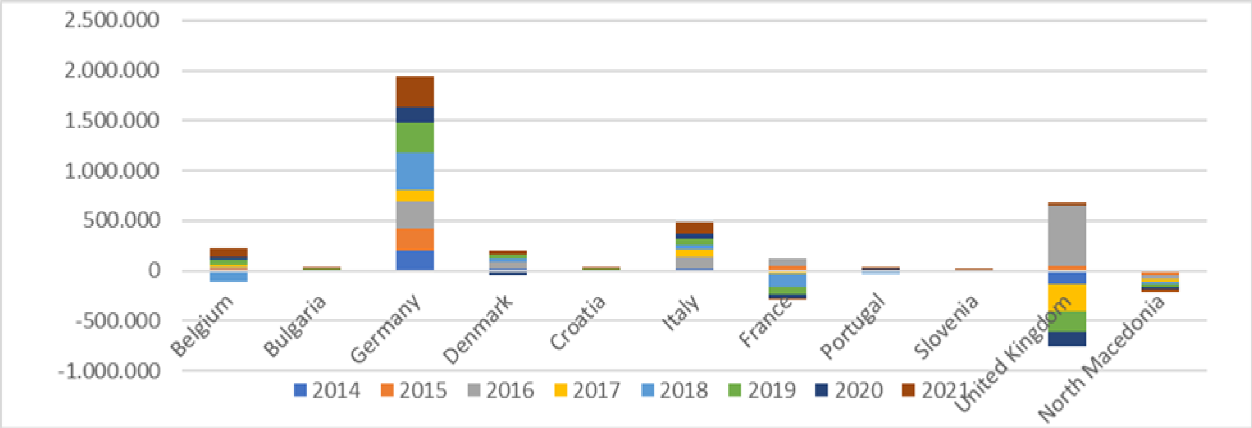
Figure.1 Share of total financial liabilities to GDP (in %)



Source: Author's Compilation from the data of Eurostat and NBRNM

Outstanding liabilities pose a risk when the ability of debtors to repay financial obligations is compromised. The risk intensifies when debtors lack suitable assets to fulfill their obligations. A decline in a debtor's financial standing, whether through direct or indirect channels, adversely impacts the financial standing of creditors, leading to anticipated losses. The repercussions of a debtor defaulting on obligations extend to multiple participants in the broader economy. However, in today's economic landscape, robust economic performance is inseparable from the financial sector injecting capital into the economy. Examining national accounts data (refer to Figure 2), it is evident that net financial worth has increased in all countries analyzed, with the exception of North Macedonia. Notably, there is considerable heterogeneity among countries in this regard. For instance, Germany, Bulgaria, Croatia, and Italy consistently maintained a net lender position throughout the entire period, while other countries experienced fluctuations, with North Macedonia witnessing a continuous decline in net financial worth each year. This underscores the essential role of a healthy and robust financial system in fostering economic development. However, the potential costs of an over-indebted economy and the increasing risks that emerge in a volatile economic environment should not be overlooked.

Figure 2. Changes in net financial worth, 2013-2021



Source: Author's Compilation from the data of Eurostat and NBRNM

3. FINANCIAL INSTRUMENTS IN SELECTED COUNTRIES

This section examines the breakdown of financial assets and liabilities across selected countries, focusing on instruments utilized by the entire economy, non-financial corporations, and households. Omitting other institutional sectors, the past decade witnessed a noteworthy development—the substantial growth of equity and investment funds. This growth was most pronounced in Denmark, with only Turkey and Croatia experiencing a decrease of 8 and 1 percentage points, respectively, compared to 2013. Notably, North Macedonia's ratio of equity and investment funds in 2021 remained unchanged from a decade ago. Additionally, there has been a general increase in currency and deposits in almost every country, averaging 3.3 percentage points. This rise comes at the expense of the share of debt securities and loans. An analysis of the structure of financial instruments in selected countries reveals a distinction between market-based and intermediary-based systems. Market-based countries allocate more space to equity and investment funds, while intermediary-based countries show a prevalence of currency and deposits in their financial instruments. Moreover, in market-based financial systems, a significant portion is allocated to insurance, pensions, and standardized guarantees, as observed in Denmark, Germany, the UK, and the USA. A notable anomaly arises when examining North Macedonia's financial instrument landscape. Despite being classified as an intermediary-based financial system, with the banking system contributing over 90 percent to the overall financial system, it exhibits structural similarities to market-based nations. However, disparities emerge in the reduced prominence of insurance, pensions, and standardized guarantees. Additionally, a temporal analysis highlights the striking similarity between the current financial structure and that of 2013.

Table 1. Change in structure of financial instruments, total economy (difference between 2021/2013 in %)

2021/2013	Currency and deposits	Debt securities	Loans	Equity and investment fund shares	Insurance, pensions and standardised guarantees	Other accounts receivable / payable
Belgium	3%	-2%	-7%	6%	0%	0%
Bulgaria	3%	-1%	-5%	5%	1%	-3%
Denmark	-2%	-6%	-4%	13%	0%	-3%
Germany	0%	-1%	-3%	6%	-1%	0%
France	3%	-3%	0%	6%	-1%	-3%
Croatia	3%	1%	-5%	-1%	2%	-1%
Italy	3%	-3%	-4%	4%	2%	-2%
Portugal	4%	1%	-6%	2%	0%	-1%
Slovenia	6%	3%	-10%	1%	0%	-1%
United Kingdom	3%	1%	0%	4%	1%	0%
Türkiye	7%	-2%	0%	-8%	0%	1%
United States	0%	-1%	-2%	6%	-4%	0%
North Macedonia	3%	0%	-1%	0%	1%	-3%

Source: Author's Compilation from the data of Eurostat and NBRNM

When we look at how non-financial corporations' handle their financial responsibilities, there are some interesting trends. From 2013 to 2021, there has been a clear increase in equity and investment funds. This means companies are relying more on investments from sources like shareholders. At the same time, the financial corporations are borrowing through loans has generally gone down, except for Turkey, which is doing the opposite. Jumping to 2021, we see that for most of the countries we're looking at, "equity and investment funds" are the biggest sources of finance for companies. But in Turkey, things are a bit different: loans, and trade credits still play the most important roles in funding companies. And if we focus on the Balkan region, which includes countries like Bulgaria, Croatia, Turkey, and North Macedonia, trade credits are still the important way companies get finance to run their daily operations. In a nutshell, this shows us how companies are getting their finance. They're increasingly turning to things like equity and investment funds, but the specifics can vary from country to country.

Table 2. Change in structure of financial liabilities, non-financial corporations (difference between 2021/2013 in %)

2021/2013	Loans	Equity and investment fund shares	Other accounts receivable / payable
Belgium	1%	-3%	2%
Bulgaria	-11%	12%	-1%
Denmark	-3%	11%	-7%
Germany	-3%	1%	2%
France	-4%	8%	-3%
Croatia	-5%	7%	-1%
Italy	-5%	8%	-4%
Portugal	-7%	9%	0%
Slovenia	-14%	11%	3%
United Kingdom	-2%	7%	-4%
Türkiye	6%	-10%	4%
United States	1%	10%	-5%
North Macedonia	0%	-1%	1%

Source: Author's Compilation from the data of Eurostat and NBRNM

From 2013 to 2021, households consistently favored equity and investment funds as their primary investment, as indicated in Table 3. Following closely behind were insurance technical reserves, both of which experienced an upward trend during this period. In contrast, deposits and debt securities saw a decline over the same timeframe. Notably, there are noteworthy variations in the portfolios of European households. Deposits are particularly high in countries such as Turkey, Slovenia, Croatia, Portugal, Germany, and North Macedonia, where the dominance of the banking system and relatively weak financial markets contribute to this preference. Italy and Turkey stand out for significant investments in debt securities, influenced by substantial general government debts. On the other hand, households in Bulgaria, Belgium, Denmark, Italy, and North Macedonia show a preference for equity and investment funds, reflecting the advancement of capital markets in these regions. Additionally, idiosyncratic factors, such as the significance of small firms issuing other equity, play a role in countries like North Macedonia and Bulgaria. Comparing the years 2013-2021, a notable surge in stock market participation and mutual funds units occurred, particularly in Denmark, Bulgaria, Italy, Belgium, and Germany. Insurance technical reserves also vary widely in their weight on households' financial assets. In the UK and Denmark, where state pensions are limited, this ratio is approximately 50%, while it remains below 20% in Bulgaria, Portugal, Slovenia, Turkey, and North Macedonia, where pay-as-you-go systems remain predominant. This mix of assets reflects the varying degrees of development in financial markets across different countries.

Table 3. Change in structure of financial assets, households (difference between 2021/2013 in %)

2021/2013	Currency and deposits	Debt securities	Equity and investment fund shares	Insurance, pensions and standardised guarantees
Belgium	1%	-6%	6%	-2%
Bulgaria	-8%	0%	7%	3%
Denmark	-6%	-1%	12%	-8%
Germany	0%	-2%	6%	-4%
France	0%	-1%	2%	-2%
Croatia	-8%	0%	1%	6%
Italy	1%	-11%	6%	4%
Portugal	4%	-4%	6%	-3%
Slovenia	0%	-1%	4%	-2%
United Kingdom	1%	0%	-1%	1%
Türkiye	-3%	0%	0%	3%
North Macedonia	-3%	0%	0%	5%

Source: Author's Compilation from the data of Eurostat and NBRNM

4. CONCLUSION

The significance of financial assets and liabilities, surpassing the scale of the entire economy, underscores the vital role of the financial system in the contemporary world. Over the past few decades, there has been a swift liberalization in financial markets and increased globalization of the world economy, which has led to a rigorous importance of financial instrument in the whole economy, Abbas and Malik, 2008. The role of financial instruments in influencing economic developments is evident during both periods of growth and economic downturns, Claessens, 2010. Drawing on insights from economic literature, we have highlighted key considerations, including the size of financial systems as a necessary but not sufficient condition for economic development, the growing financial integration, uncertainties regarding convergence in financial structures, and variations among different types of intermediaries. Returning to the questions posed in the introduction, our conclusions can be summarized as follows: Firstly, concerning the size of financial systems, national differences persist in Europe regarding the ratio of financial assets and liabilities to GDP. Notably, the UK, France, Belgium, and Denmark exhibit the highest indebtedness ratios, attributed to advanced markets, the presence of non-bank financial intermediaries, and a longstanding tradition of commercial openness. In contrast, the Balkan region displays lower financial liabilities to GDP ratios. Secondly, there has been an improvement in net financial worth across all countries analyzed, except for North Macedonia. Notably, Germany, Bulgaria, Croatia, and Italy consistently maintained a net lender position throughout the period, while other countries experienced variations, with North Macedonia witnessing a continuous deterioration in net financial worth. Finally, national disparities persist in the composition of financial assets and liabilities by instrument. Between 2013 and 2021, a notable phenomenon was the reduction in loans and debt securities and the increase in equity and investment funds. These trends were particularly pronounced in Belgium, Denmark, Germany, France, and the USA, with Turkey being the exception showing an opposite trend. Considering concerns for the financial positions of the non-financial corporations and the household sector. There has been a clear increase in equity and investment funds in non-financial corporations, simultaneously, reliance on loans has generally decreased, except for Turkey, which exhibits the opposite trend. Equity and investment funds emerged as the preferred investments for households, followed by insurance technical reserves, over the years 2013-2021, both these instruments increased, while deposits and debt securities decreased. A noteworthy observation is that even in North Macedonia, which has an intermediary-based financial system, equity and investment funds play a dominant role. This is influenced by idiosyncratic factors, such as the significance of small firms issuing other equity. Despite these insights, financial accounts data remain underutilized in the analysis of financial structures. Future research could explore more sophisticated measurements of financial ratios using financial accounts data. Given the strong interconnections between sectors, assessing financial interrelations is crucial for gaining a better understanding of markets and identifying system-wide risks.

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