FINANCIAL STABILITY, FISCAL SUSTAINABILITY AND CHANGES IN DEBT STRUCTURE AFTER ECONOMIC DOWNTURN

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Abstract. *In this paper, the author finds links among changes in private and public debt during economic downturn and discusses their financial stability and fiscal sustainability consequences. Financial deepening in years before the economic downturn resulted in the growth of indebtedness among agents within economy that sustained afterwards. The European Union has not become less indebted during and after the economic meltdown, but the structure of debt holders has changed. The growth of private debt in the upturn phase resulted in a qualitatively new level of economy. However, in order to sustain the same level after the economic downturn, the public sector was forced to increase its debt. As a result, interactions among financial stability and fiscal sustainability have become more pronounced as monetary financial institutions experienced deleveraging from the private sector and an increase of leverage from the public sector. Thus, the financial stability and fiscal sustainability nexus is analysed by employing flow-of-funds data that show balanced interlinkages among real and financial flows. Recent discussions on sovereign debt instability and suggestions to diminish public debt whatever it costs lack an appropriate answer who will replace it as the flow-of-funds in economy is always in balance.*

Key words: *financial stability, fiscal sustainability, flow-of-funds analysis, interconnectedness, balance sheet approach*

1. Introduction

The significant transformation of financial markets, institutions and infrastructures over the last few decades has substantially enhanced the role of finance in the economy. In the majority of countries, the increase in financial assets and (or) liabilities was several times faster than the growth rate of countries' income (gross domestic product, GDP). Along with the evident advantages of financial deepening, however, a number of disadvantages emerged as well. Notably, during economic, financial or other types of crises, the financial burden built-up earlier greatly aggravates the position of indebted economic agents, resulting in a slower output growth afterwards. Additionally, the substitution of debt holders occurs within the economy. Deleveraging by private and financial sectors is sub-

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stituted by an increase of the public sector leverage, because the economy is adjusted to a new level (new normal). On the one hand, this is a result of expansionary fiscal policy and growth of need for resources, especially for countries with the lack of reserves in the downturn phase. On the other hand, this is a result of a substantially higher national income level that was previously supported by a strong increase in the private leverage.

The level of indebtedness is one of the core measures in discussing financial stability and fiscal sustainability issues both in a local and a global context. Taking into account its complexity, safeguarding financial stability and fiscal sustainability has become a challenging task for policy makers. The rising interconnectedness between sectors and economies has made the analysis even more complicated. The demand for comprehensive and consistent data sources which could be of help in assessing interconnectedness and spill-over effects has increased. The role of national and financial accounts (real and financial flow-of-funds) data could play an important role here.

The aim of this paper is to discuss interconnections among financial stability and fiscal sustainability by showing the real structural reasons of the public sector debt growth after the economic downturn. National and financial accounts of the European Union countries are used in order to support the idea that public debt is a result of former build-up of other sectors' debt rather than cause of economic downturn. The original balance sheet approach is used to disclose the debt holder change issue within the economy. The paper is organized as follows: Section 2 presents the interaction among finance, economy and government, Section 3 defines the correlation between financial stability and fiscal sustainability, Section 4 highlights assessment issues, Section 5 discusses the case of the European Union, Section 6 concludes.

To some extent, the material provided in this paper was already published by the author in the book "A Flow-of-Funds Perspective on the Financial Crisis" (2014). However, in this paper the author discusses the balance sheet approach in a considerably different manner by connecting financial stability and fiscal sustainability, and raises questions regarding debt behaviour among sectors after economic downturn.

2. Macro economy, finance and government

As a result of liberalization and deregulation, financial markets have experienced a significant transformation over the last few decades. The evolution of financial instruments ensured a rapid advancement in terms of a financial system's main goals, namely, the transformation and allocation of different types of financial assets in time and place, mobilizing savings and diversifying risks, thereby creating a financial environment that supports the general economic performance. Real economic and financial activities have increasingly overstepped state borders (see Fig. 1) – as reflected in a sharp increase in the cross-border flow-of-funds – and made the achievement of these financial system

goals even more effective. However, domestic and international financial funds not only provide support for the real economy (broadly speaking in satisfying, its borrowing / lending needs), but at the same time they create some vulnerabilities due to the fragile and interconnected nature of finance.

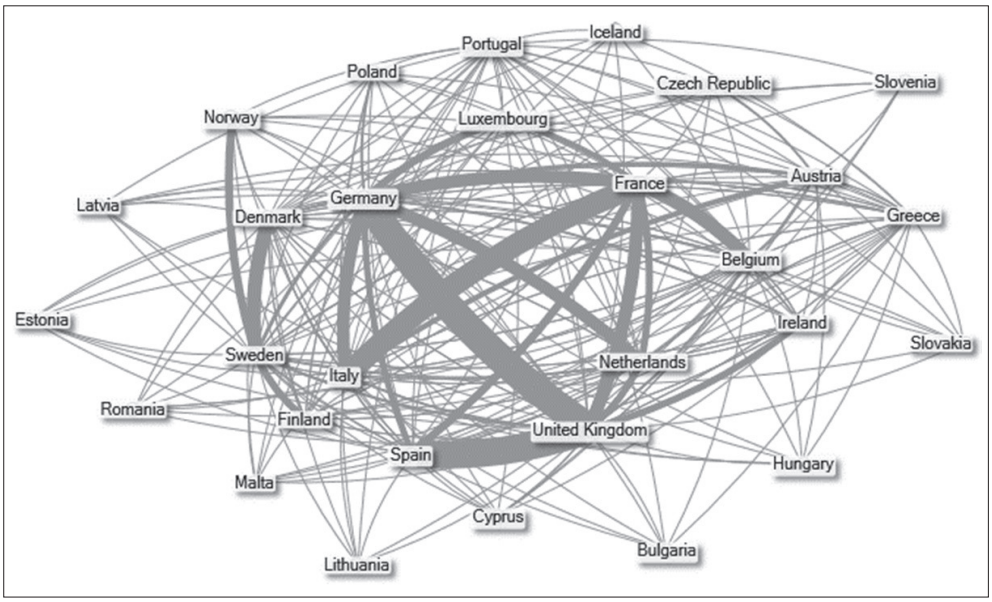

FIG. 1. **Interconnectedness of the European banking sector at the end of 2014**

Sources: Bank for International Settlements and author's calculations.

A number of factors could provoke sudden stop or even withdrawal of financial funds from one economic sector or another or even a whole country. This, in turn, could have damaging consequences, and without additional financial support (most probably from government, other countries or international institutions) the financial system could become unstable and harm the real economy, finance and savings in the same effective way as it has supported it previously. Knowing this risk, the topic of financial stability found its place in a number of international initiatives, policies and agendas. However, due to the complexity, rapid development and sudden changes of the financial system, the evaluation of its instruments, participants, infrastructure and systemic features has become challenging, thus creating additional uncertainties for policy makers in their decision-making processes.

The contribution of finance to the performance of the real economy could be assessed in a number of ways, starting with simple ratios and ending with sophisticated models. The latter could be a more precise instrument of assessment and propose deeper insights; however, this paper has no intention to make such evaluation. Instead, this paper evaluates the role of finance in the real economy in a simple manner by examining financial

deepening ratios (e.g., the gross debt to GDP ratio) or national accounts data on the net lending / net borrowing basis and their dynamics. In some cases, gross debt could be replaced by the net financial position (i.e. financial assets minus financial liabilities) in order to arrive at the net debt outstanding as a more proper variable to evaluate indebtedness. In turn, indebtedness was (and to some extent remains) the central point in assessing vulnerabilities between both the private and the public sectors. However, such data should be taken with caution. This is especially important in financial stability assessment and risk evaluation for the following reason. Financial assets and financial liabilities of one sector could be, and usually they are, different by their nature (maturity, currency, holder, etc.) and the ability to use assets to meet liabilities in order to mitigate negative shocks could be overestimated, limiting the value of such analysis.

From 2004 until 2013, the financial liabilities of the 28 European Union Member States (EU28), according to the Eurostat, has almost doubled. Meanwhile, the growth rate of the GDP in real as well as in nominal terms was by comparison substantially lower in the corresponding period. This has resulted in an increase of general indebtedness measured as debt (financial liabilities) or net financial assets to GDP ratio. Total financial liabilities of the EU28 economy in 2013 were 11 times higher than its nominal GDP (in the year 2000 the ratio was equal to eight (or 797 per cent); see Fig. 2). The role of finance in the EU28 economy has increased substantially over the last decade. The heterogeneity in developments across the EU countries can be related to the structural position of some countries (Luxemburg) as well as the catching-up process (the EU enlargement in 2004) that was frequently mentioned as a justification for the rapid credit expansion in some cases.

Still, the increase in debt hardly could be assessed as a measure of risk in itself. The existing liabilities (or in risk assessment case exposure at default) have the risk potential which evolves when the debtors' abilities to repay financial liabilities are deteriorating (similarly the probability of default). The situation becomes even worse when there are no suitable assets (financial and / or real) which could be used in order to meet obligations. In turn, deterioration of debtor's financial standing through direct and indirect channels will make the financial standing of creditors worse due to expected losses. The consequences of one debtor's default for its obligations will affect a number of participants in the whole economy, dragging financial stability and fiscal sustainability down.

However, in today's world, a stronger economic performance is inconceivable without the financial sector injecting money into the economy. As can be seen in national accounts data (see Fig. 3), net borrowing has increased in the EU since 2006. The heterogeneity across the countries is evident in this case as well as, for example, Germany for years has remained a net lender and Spain in turn a net borrower. After the economic downturn in 2009, the number of the EU countries able to perform without absorbing additional financial debt has increased and the number of net lenders has risen.

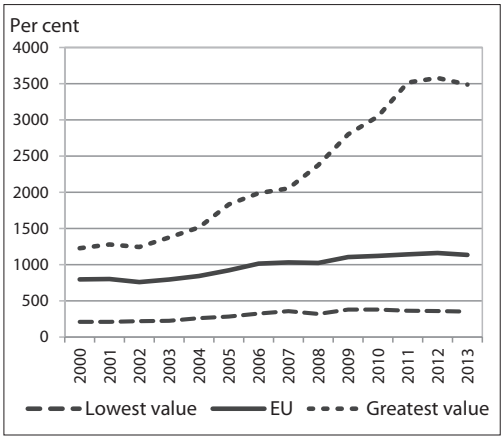

FIG. 2. **Dynamics of total financial liabilities to nominal GDP in the EU**

Sources: Eurostat and authors calculations.

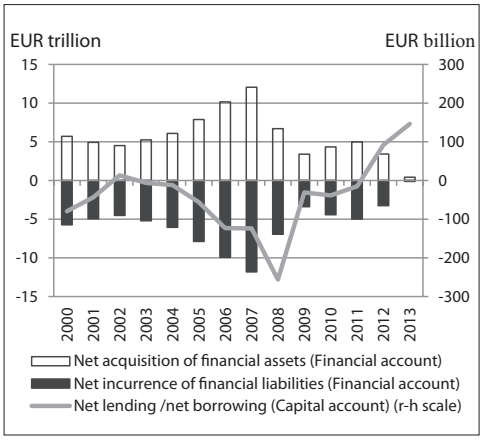

FIG. 3. **Dynamics of some capital and financial account data in the EU**

Source: Eurostat.

However, the debt holders have changed if compared before and after the crisis. Thus, a healthy and sound financial system is essential in generating the economic development, but the price for an over-indebted economy and increasing risks arising from this in a volatile economic environment can be high.

3. Interaction of financial stability and fiscal sustainability

While the consequences of earlier economic and financial crises were not yet forgotten in the world (for example, Mexico (1994–95), Asia (1997–98), Russia (1998–99) and Argentina (2001-02)), the new shocks hit the world financial markets and economies in 2007–08 in a fashion not seen since the Great Depression (Belinskaja et al., 2009). A deeper international integration of finance had strengthened the channels of the undesirable impact and complicated safeguarding financial stability among financial market participants and society as a whole. The question how to secure financial stability was renewed and put on the top of the agenda of high-level state officials. However, as Schinasi (2005a) argues in one of his many works on financial stability, financial stability means more than the mere absence of crisis.

Financial system can be considered stable if it (1) facilitates the efficient allocation of economic resources, geographically and over time, as well as other financial and economic processes (…); (2) assesses, prices, allocates, and manages financial risks; and (3) maintains its stability to perform these key functions even when faced with external shocks or a build-up of imbalances. By implication, because the financial system encompasses a number of different but interrelated components – infrastructure (…), institutions (…), and markets (…) – a disturbance in one of the components could undermine the stability of the entire system.

Taking into account the many factors which the term of financial stability encompasses, the building of its definition is a challenging task. In his book "Safeguarding financial stability: theory and practice" Schinasi (2005b) defines financial stability as follows: financial stability is a situation in which the financial system is capable of satisfactory performing its three key functions simultaneously. First, the financial system is efficiently and smoothly facilitating the intertemporal allocation of resources from savers to investors and the allocation of economic resources generally. Second, forward-looking financial risks are being assessed and priced reasonably accurately and are being relatively well managed. Third, the financial system is in such condition that it can comfortably, if not smoothly, absorb financial and real economic surprises and shocks. However, in the same book, the author suggested a more compact way of defining financial stability which can also be found in his 2004 paper dedicated only to discuss this issue. Schinasi (2004) argued that the financial system is in a range of stability whenever it is capable of facilitating (rather than impending) the performance of an economy, and of dissipating financial imbalances that arise endogenously or as a result of significant adverse and unanticipated events.

This normative approach to financial stability requires the estimation of how efficiently the financial system accomplishes the three functions mentioned above: (1) reallocate resources, (2) evaluate risk, and (3) withstand shocks. The need to take measures for ensuring financial stability *ex ante* refers to the assumption that financial markets cannot ensure stability by themselves and in turn operate efficiently. However, in this case it should not be forgotten that some financial crises were determined by the incomplete regulation of financial markets while using the measures that were distorting market effectiveness. Therefore, in order to ensure financial stability, it is important to find a balance between the creation of market distortions and the minimization of the impact of market imperfections (Leika, 2008).

Financial stability has strong links with fiscal sustainability, and it is well observed by a number of authors' works. Sustainability is defined in a rather standard way: the fiscal policy is said to be sustainable if the present value of the future primary surpluses equals the current level of debt (Krejdl; 2006). This means that the concept of fiscal sustainability is basically associated with the fiscal policy (surplus or deficit) or the dynamics of public debt (need to repay it). In scientific literature, there are three approaches to the distinction of fiscal sustainability (see, for instance, the literature review made by Keliuotytė-Staniulėnienė, 2015). First, fiscal sustainability is related to solvency (or ability to service debt). The second approach suggests that the sustainable fiscal policy ensures that the ratio of debt to the GDP converges back towards its initial level. At the end, the third approach takes into account both solvency and the limitation of debt growth.

The linkage between government finances and financial stability is symmetric through the cycle (Das et al., 2010). In an upswing, the quality of financial institutions' exposure to the government is high, as public bonds carry a low default, extension, and liquidity risk. Moreover, the ease of issuance facilitates the establishment of government

securities as a benchmark for an efficient pricing of private sector credit, often at a low spread during a boom. During a downswing, especially in the case of a recession triggered by a financial sector dislocation, maintenance of the asset quality of the government's liabilities, although far more elusive, is much more critical in containing adverse developments in the real and financial sectors.

Government is one major macroeconomic agent. Government's income, expenditure, deficit and accumulated debt are four major indicators of its activities and have strong links with each other. Fiscal policy (i. e. income and expenditure) makes a direct impact on surplus (in case income is greater than expenditure) or deficit (in case expenditure is greater than income) of public finance, and this, in turn, could be observed in changes of the public debt. The growth of public debt (exposure in terms of risk) makes the government more vulnerable to any unexpected shock (e.g., economic downturn) as its debt repayment abilities become comparatively higher than otherwise and could be a source of government's insolvency (see, for instance, Reinhart and Rogoff, 2009). Without a direct effect, an indirect effect could be observed as well. For instance, higher debt burden results in lower abilities of the government to increase expenditure or investment (thus support the economic growth), and this in turn suspends to some extent the future economic performance.

The low risk appetite by the financial agents made them more interlinked with the public sector (see Fig. 4). After economic downturn due to the demand and supply nexus, the financial sector has decreased its exposure to the private sector and increased it to the public. Changes in the assets structure made financial intermediaries more vulnerable to the sudden changes in fiscal sustainability (notwithstanding the diversification of their portfolios). At the end, one of the main sources of financial instability became fiscal fragility when the run-out of debt repayment abilities by the government (sovereign debt crisis) may result in the insolvency of main debt holders due to the lack of capital to cover losses.

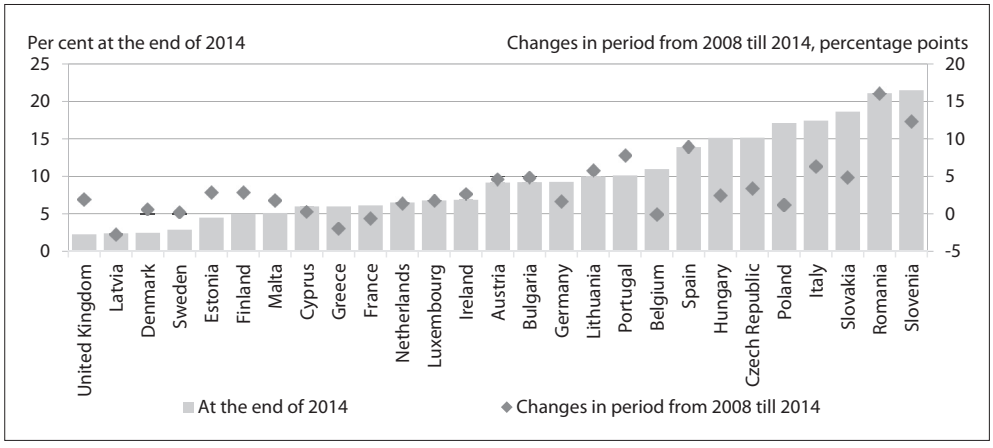

FIG. 4. **Public debt (loans and securities) as a share of monetary financial institutions' assets**

Sources: ECB and author's calculations

As Gnan (Gnan, E., 2013) argues, financial, economic and fiscal crisis is among other things characterized by complex interrelations among financial, fiscal, macroeconomic and political instability. One instability breeds another, with feedback loops generating self-reinforcing adverse cycles. The financial crisis triggered the Great Recession. Countermeasures by governments – to save banks and bolster up the aggregate demand – ultimately jeopardized fiscal sustainability and bred the fiscal crisis. The latter, in turn, has destabilized sovereign bond markets and banking systems in several countries. Political instability resulted from the substantial fiscal consolidations forced upon governments in the light of threatening or actual loss of access to financial market financing and the accompanying deep recessions and sharp increase in unemployment. Political instability, in turn, further erodes the economic and financial market confidence, thus worsening short and long-term economic and fiscal prospects and further aggravating financial instability.

Notwithstanding the fact that in several sources quite different definitions concerning financial stability or fiscal sustainability can be found, this in turn does not mean that there is some misunderstanding. As mentioned above, the financial system as a whole has undergone a deep evolution process and becomes increasingly complex. Financial stability should not be conceived as being ensured when there is no crisis, or in general no threat of a crisis, for a country's financial system. Emphasizing the static position is not sufficient as a definition of financial stability when dynamic changes are observed in markets or economies. Furthermore, it is important to have in mind the existence of inter-linkages among financial, macroeconomic and fiscal stability and sustainability, as a stable financial system cannot exist in the absence of a stable macro economy, and *vice versa* (Hollo, 2007).

4. Financial stability and fiscal sustainability analysis

Descriptions of financial stability and fiscal sustainability suggest in advance that the analysis is complex. This complexity increases when financial stability assessment is undertaken in parallel with economic stability or fiscal sustainability evaluation where both interact to a great extent. As Schinasi (Schinasi 2005b) puts it, to prevent problems from occurring or becoming significant enough to pose a risk to financial stability, the approach taken should be a continuous process of information gathering, technical analysis, monitoring, and assessment. Ongoing and more fundamental research into the changing structure of the financial system and its changing links to the real economy, as well as the further development of measurement techniques for detecting growing imbalances and calibrating risks and vulnerabilities, are vital for keeping the critical monitoring function up to date.

Houben, Kakes and Schinasi (Houben et al., 2004) suggest a framework for maintaining the financial system stability (see Fig. 5).

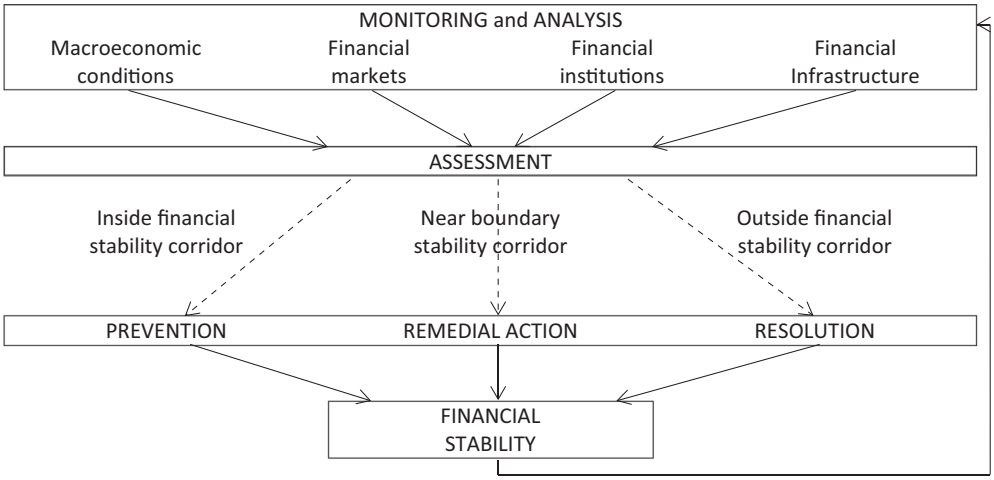

FIG. 5. **Framework for maintaining financial system stability**

Source: Houben et al. (2004, p. 17).

As can be seen in Fig. 5, in order to maintain financial stability, several steps should be made. For appropriate policy actions (e.g., to employ a proper macro-prudential instrument), an accurate assessment of current financial stability conditions should be made. As Fig. 5 suggests and as could be expected, the monitoring and analysis of the financial system's main parts together with macroeconomic conditions is a core function of the further process aimed at maintaining the financial system stability. To this extent, fiscal sustainability should be treated as a part of macroeconomic conditions. Additionally, as mentioned when discussing the financial stability definition, maintaining the financial system stability is a dynamic process.

The general government constitutes a very important institutional sector of the total economy (among non-financial corporates, households, financial intermediaries and the rest of the world sector). In terms of national accounts, it is divided into the central government, local authorities, and social security funds. The general government sector has two main functions: the production of non-market goods and the redistribution of income. To finance the cost of these functions, general government levies taxes and social contributions. Four main indicators to assess the performance of general government are as follows: 1) the public deficit; 2) the public debt; 3) the public expenditure; and 4) total taxes and social contributions. The first two indicators have been used as the Maastricht treaty criteria (Lequiller and Blades, 2014).

The process of safeguarding stability and sustainability deals with a number of risks that could threaten the proper functioning of the financial system (in performing core functions), the public sector, and the economy as a whole. Houben et al. (Houben, 2004) separate the sources of risk to financial stability into two main categories: endogenous

(institutions, market, or infrastructure based) and exogenous (macroeconomic disturbances or event risk). When dealing with risks, the scope of particular vulnerabilities and their impact on the financial system (for a single entity as well as for the whole system) in case of unfavorable developments are essential.

Due to the changing nature of risks, the demand for comprehensive and consistent data on interconnectedness within the economy, public sector and the financial system has also risen. On the one hand, such data could be obtained from participants in the financial system or the economy, but it could be hard to ensure the appropriate quality, and the process will be time-consuming. On the other hand, the flow-of-funds (in the continental Europe perspective, this term stands for financial accounts) offer a systemic view of interconnectedness and is a useful tool in the analysis of financial stability. However, the main shortcoming of these data should also be taken into account: they are lagging one quarter or even more (so, when the crisis hits they could be of less value). Many countries also have financial assets and liabilities divided by sectors (sub-sectors) and financial instruments, but a few of them could provide information about interconnectedness or the so-called who-to-whom data. The latter feature of financial accounts data is especially important for assessing a contagion within the system and the possible outcomes if risks materialize. For the moment, the European central bank provides data on interconnectedness among all economic agents, but only in terms of one financial instrument – loans.

The suggestion by Mink et al. (Mink, 2005) to use quarterly financial and non-financial accounts for monitoring financial stability in combination with other data sets is seen as a major step forward in improving the overall framework for stability and sustainability assessment. Bê Duc and Le Breton (Bê Duc, 2009) continue that the flow-of-funds framework could also be useful to monitor developments over time in financial patterns, which can potentially have a bearing on financial system stability by laying the foundations for future vulnerabilities. They also point out that the flow-of-funds framework can be used to assess the vulnerability of the financial sector to large shocks and the degree of systemic risk. However, such use of the flow-of-funds framework for financial stability assessment would require the further who-to-whom information. As explained by Mink et al. (Mink, 2005), from-who-to-whom accounts allow tracing the debtor / creditor relationships among institutional sectors. This presentation allows for the analysis of who is financing whom, in what amount, and using which instrument.

5. Changes of debt holders and interconnectedness

The balance sheet approach of economic accounting suggests that in every moment taken all economic aggregates should counterweight each other, i.e. expenses (uses) by one economic agent are income (resources) to another economic agent, and so assets and /

or liabilities build up in a balanced way. A general example could be as fallows. First, an economic agent receives income from their production. Then agents are experiencing expenses by providing the above-mentioned production (actually these two go in line). The difference among the above-mentioned factors (usually it is called savings) gives the net result that could be used for the further investment. In case the new investment exceeds savings, the economic agent is forced to borrow or to make incurrence of net financial liabilities (or acquisition of negative financial assets). Negative net financial assets mean that during a certain period of time the economic agent has increased financial liabilities to a greater extent than was the growth of financial assets. At the end, the net acquisition of financial assets becomes a stock position of several economic sectors and means the growth of the debt repayment burden in the future. This example describes the essence of the real and the financial macroeconomic accounting and how they interact with each other.

Up to the start of the financial crisis, the changes in balances of various economic agents followed the expected pattern. The net acquisition of financial assets (or net lending (+) / net borrowing (–)) of financial corporations and the rest of the world entities till the start of unbalanced growth were comparatively small. Starting from 2005, the first changes in transactions were observed: non-financial companies increased their net indebtedness, households reduced gradually their net saving (net acquisition of financial assets), and the rest of the world entities together with financial corporations increased lending to the EU economy (see Fig. 6). In years 2006 and 2007, the general government managed to decrease the net incurrence of financial liabilities. However, assets and liabilities exploded starting from 2009. The private sector increased its net assets as did financial companies, and the situation continued till the last available observation in 2014.

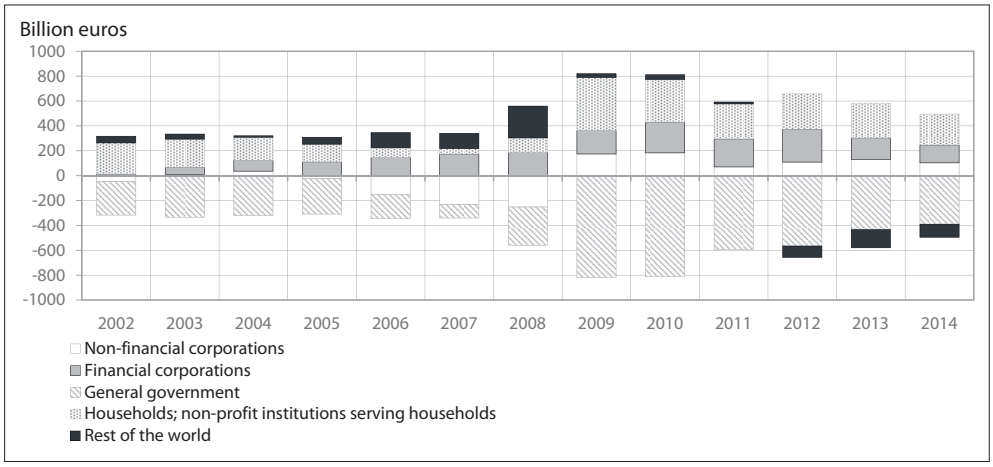

FIG. 6. **Net lending (+) / net borrowing (-) of the EU economic agents'**

Source: Eurostat.

As it is mentioned above, the acquisition of assets should be followed by the incurrence of liabilities. In the aftermath of the crisis, the public sector was forced to run the deficit and increase debt. Flow-of-funds statistics should be in balance all time, thus the acquisition of net financial assets of the private sector resulted in the incurrence of public debt (see Fig. 7 and 8). For example, net financial assets among the private sector doubled (2.5 trillion euros) in the period from 2008 till 2013, whereas the public sector was forced to increase its net liabilities by nearly 60% (3.0 trillion euros). Heterogeneity among the countries persists in terms of flows as well as in terms of indebtedness. Figures 7 and 8 support the main idea of this paper that the incurrence of financial liabilities before economic downturn by the private sector will result in the incurrence of liabilities by the public sector afterwards.

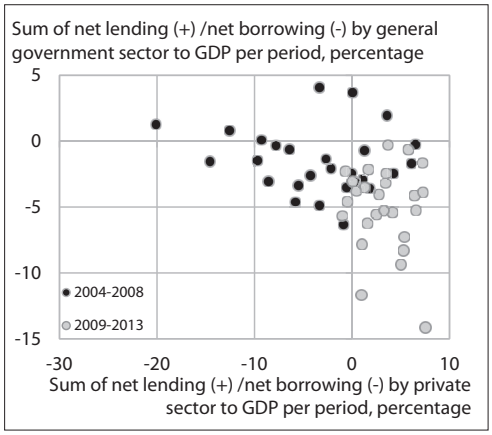

FIG. 7. **Net lending / net borrowing of economic agents in some EU countries**

Sources: Eurostat and author's calculations.

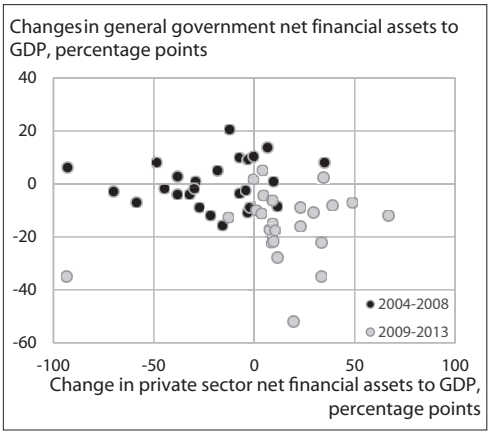

FIG. 8. **Changes of economic agents' indebtedness in some EU countries**

Sources: Eurostat and author's calculations.

The sum of balances inevitably adds up to zero, so that every change in one of the balances must have a reactive equivalent change in another one (Tichy, 2013). If households are not willing to reduce their net saving and / or non-financial companies or the rest of the world are not prepared to incur a higher debt, lower government expenditure necessarily triggers a spiral of shrinking demand. Thus, the exploding public debt in the recent years was a result rather than a cause of the financial crisis. As Tichy (Tichy, 2013) suggests, the private sector demand and not the government deficits fuelled the undesirable upward as well as downward developments. To add, a higher debt by the private sector incurred before the financial crisis led to a higher public debt afterwards because the economy has already adjusted itself to the higher financial flows (and the holder of the debt is not important).

In case the government will reduce its net indebtedness, households should decrease their net savings and non-financial companies increase net indebtedness to support general economic performance (see Figs. 7 and 8). However, it is not clear whether the

private sector and the rest of the world will behave adequately to the prescribed government changes. As Tichy (Tichy, 2013) argues, this has to be viewed as highly unlikely. Uncertainty, the normal companion of a severe long-lasting recession, typically raises households' desire for security and consequently for savings. Non-financial corporations will also hesitate to act as a counterpart to government debt by incurring additional liabilities in line with subdued expectations in future. Financial companies or the rest of the world entities (usually they are also financial intermediaries) will be reluctant to provide funds to economy, on the one hand, due to stricter prudential requirements and, on the other, due to a weak confidence in the economy.

In the aftermath of the crisis, other than the public sector within the economy will behave cautiously, and the general government (un)willingly will deteriorate in its financial stance in order to keep economy performing. Traditional countercyclical fiscal measures (especially in the downturn phase) will deal with consequences rather than with reasons. As it is shown in the paragraphs above, the main concern of policy makers before the economic downturn should be changes (increase) in the indebtedness of other economic agents as this is the main reason for concern afterwards talking about fiscal sustainability. The evaluation of the adequate indebtedness of economy should be based on the fact that after the economic downturn other than public debt to a great extent will become the general government's debt. Thus, financial stability issues regarding private debt will become more interlinked with fiscal sustainability and government's abilities to repay much higher debts (see Fig. 9).

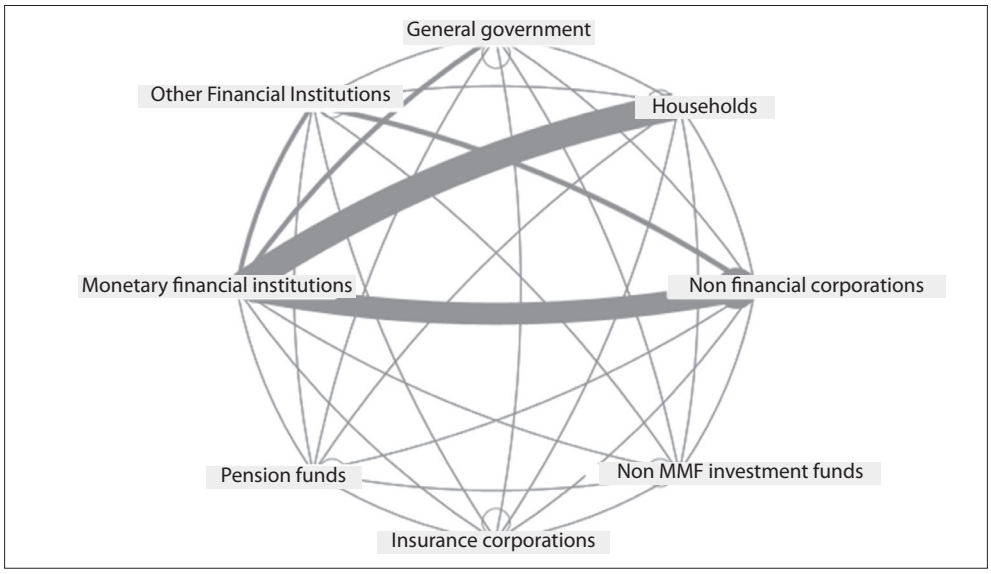

FIG. 9. **Interconnectedness of economic agents in terms of loans in euro area at the end of 2014**
Sources: ECB and author's calculations.
Note: weight of lines represents the amount of loan stock.

Flow-of-funds data provide the most comprehensive and consistent set of macro-financial information for all sectors of the economy, and this is the main reason why they should be employed in a broad financial stability and fiscal sustainability assessment. In time of economic turbulence, the main threat for financial stability could emerge from the sectors that are the main holders of financial liabilities, because a default on payments due to a poor financial situation (e. g., sovereign debt crisis) could harm other participants in financial transactions, and the domino effects could follow. To understand this, Fig. 9 shows the stylized web of interconnectedness of euro area countries' monetary financial institutions in terms of loans (for the moment, only this financial instrument is available for who-to-whom basis) at the end of 2014 in EA.

6. Conclusion

The fact that financial assets / liabilities are several times larger than the whole economy well describes the financial system's importance in the contemporary world. The last few decades saw a rapid liberalization in financial markets and the globalization of the world economy. The importance of financial instruments in contributing to economic developments is obvious in upturn as well as in downturn phases. Thus, the analysis of financial stability (comprising both the financial system and the macro economy) and fiscal sustainability has become increasingly important in order to mitigate fluctuations and negative outcomes. Taking into account the high degree of interconnectedness among sectors, the evaluation of financial interrelations is especially important for a better assessment of financial stability and a possible materialization of system-wide risks.

In the recent past, the financial and the public sectors have become more interlinked suggesting that financial stability issues should be assessed in line with fiscal sustainability. Due to the demand and supply nexus in the new credit market and subdued economic performance globally, the financial sector has become risk-averse and increased its holdings within the public sector. This is usually perceived as a consequence of expansionary fiscal policy during economic downturns. However, the general government was forced to fuel the economy with borrowed funds by keeping the economy performing near the same level, because the previous increase of private debt picked it up to a new normal level. Thus, financial deepening fostered by the private financial and non-financial sector before the crises to a great extent predicts the growth of financial liabilities by the public sector afterwards. The growth of the public debt leads to the fiscal deficit and raises concerns regarding the sustainability of the whole finances. Additionally, recent discussions regarding a forced decrease in the public debt – as the instability source – are lacking the answer who in economy will incur this decrease in liabilities by the public sector.

Macroprudential policy instruments employed to restrict the excessive credit growth will act as a financial stability as well as a greater fiscal sustainability tool in the future.

The aim of the countercyclical capital buffer is to restrict an excessive credit growth and to make the credit market more balanced. Thus, overindebtedness will be constrained to some extent and as a balance sheet approach suggest that in case of unforeseeable shock the public sector will be forced to increase its debt less. In this case, financial stability and fiscal sustainability will go in line to ensure a stronger macroeconomic development.

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