THE IMPLICATIONS OF INDEBTEDNESS FOR FINANCIAL STABILITY

Cătălin Emilian HUIDUMAC PETRESCU*, Alina POP*

Abstract. *Economic growth, one of the main objectives of every economy has been recently affected by the global economic and financial instability. This led to the increase of the indebtedness which soon became a problem for both the developed and developing countries. The article examines the indebtedness indicators highlighting their implications for financial stability. Although indispensable in an economy because of its role in supporting economic growth, debt can have serious implications for stability when its values are very high.*

Keywords: *financial stability, loans, indebtedness.*

JEL classification: F34, G21

1. Introduction

A system enjoys financial stability when it is able to attract and place monetary fund effectively and to withstand shocks without damaging the real economy (Isărescu, 2006). Ensuring financial stability implies to monitor the ability of a system to absorb shocks. The importance of this type of analysis stems from the fact that the stability of the real economy largely depends on the stability of the financial system. In the current context the influence of the banking sector on the real economy can be best exemplified as follows: due to some shocks manifested in the real economy, bank losses will increase significantly and their impending reaction will be to reduce the supply of credit, which could deepen even more the recession by reducing consumption and investment expenditure. Therefore, there is a strong link between economic and financial stability. The stability of a financial system cannot exist without economic stability and vice versa.

Financial stability can be compromised by a number of factors, including the accumulation of debt, private or public. The economic and financial imbalances manifested in the recent years have changed the

* The Bucharest University of Economic Studies, catalinhuidumac@yahoo.com, alina_aserom@yahoo.com

perception on debt. Many of the existing studies in the literature show that in a recession the deterioration of bank's balance sheets compromises future loans, which in turn cause a reduction in investment, income and employment. However, we can't eliminate debt but, we must rethink the levels for acceptable debts and its structure. The debts accumulated particularly in Europe have shown that they are not only capable of supporting the economy but also of creating major imbalance.

Achieving financial stability and strengthening the capacity to manage debt either by reducing current debt levels and improving debt structure or by developing the capacity to sustain debt levels or more likely, a combination of these represents a major concern of the regulation authorities around the world.

The article analyzes the relationship between debt and financial stability for countries in Eastern Europe. The paper presents in the first section some of the theoretical approaches in the economic literature regarding the concept of financial stability, followed by an analysis of some of the key indicators that highlight the relationship between the indebtedness of a state and its financial stability, in the second section.

2. The concept of financial stability in the economic theory

The analysis of financial stability is one of the issues most discussed in the literature. The financial stability theories have emerged primarily during the international financial crisis and were amplified recently, following the financial crisis of 2008.

The classical economic theories do not put a great accent on the analysis of the instability phenomena, on the nature and the causes of it. In essence, these theories admit that occasionally the economy will face destabilization but, the analysis focuses more on the forces that create equilibrium in the market and not on those that lead to destabilization.

Similarly, the Keynesians argue that in an imbalanced economy fiscal policy can be used to return to steady state. The limits of this theory consisted in the fact that it did not explain how these deviations occurred, such as for example, the unemployment. The focus it was put on the interactions that brought the system back to equilibrium rather than on the processes that lead to destabilization.

From the monetarist perspective financial instability cannot occur or may not have serious repercussions in the absence of changes in the money supply. Monetarists believe that the main determinant of financial imbalances can be found in monetary policy. The problem arising from this theory is that it does not take into account the possibility of imbalances caused by factors other than the monetary ones (Crockett, 1997). However, the monetarist theory goes beyond the previous theories and analyzes the causes of the imbalances.

The shortcomings of these neoclassical approaches consist in the fact that they claim that the economic cycles can be eliminated through fiscal and monetary policy without taking into account the internal factors that can lead to instability; they attributed this phenomenon only to the forces located outside the functional dynamics of the economy (Minsky, 2011, p. 229).

In contrast to the previous analyzes, Minsky argues that the failure to understand the causes of the economic and financial instability and the ignorance of internal causes limits the ability to prescribe government policies to end the imbalance. He also states that a new theory, that can explain the instability as a normal phenomenon faced by an economy and that can provide tools to control it, it is needed.

The analyzes carried out in the recent years have led to some results that can explain the behavior of the economic agents that can cause financial instability. Among these causes are the information asymmetry, moral hazard, contagion and non-bank financial intermediaries (Crockett, 1997). Even though previously the economic theory analyzed differently the financial intermediaries because it was believed that the difficulties faced by these institutions could not generate the same systemic problems a bank generates, now, it appears that the analysis of the banking sector stability should consider not only banks but also non-banking financial institutions. These include investment funds, brokerage firms, insurance companies and others. Consequently, a stable banking sector means in very simple terms, the ability of all these institutions to withstand shocks.

A more complex definition is given by Garry Schinasi (2004), which argues that financial stability can be defined as a sum of three benchmarks:

a) The ability of the financial system to facilitate efficient allocation of economic resources and the effectiveness of other business processes such as growth and social prosperity;

b) The ability to manage and assess financial risks;

c) The ability of the system to fulfill these functions even in periods of external shocks mainly, through self-correcting mechanisms.

If one or a combination of these features is not met, it is likely that over time the financial system will become less stable. Therefore, maintaining system stability involves identifying the main sources of risk and vulnerability such as inefficiencies in the allocation of financial resources from savers to investors and the mismanagement of financial risks. Monitoring financial stability should be forward looking and, inefficiencies in the allocation of capital and the mismanagement of financial risks could compromise future financial system stability and therefore economic stability (European Central Bank, 2014).

Defining financial stability throughout risks and vulnerabilities takes into account the fact that they are easier to understand and quantify. The problem that arises from this approach is that states are faced with different types of crises, so the indicators used to measure financial stability depend on the type of crisis a state faces[1]. An example of crisis is the banking crises manifested in 2008. A state facing this kind of crisis notes that much of its banking system became insolvent due to massive losses from investments or after a panic among depositors or both[2]. Given the fact that a bank operates with the profits generated by the use of the money deposited by consumers, when a large number of customers withdraw the amounts deposited, the bank will face financial problems that can eventually lead to bankruptcy. When these withdraw occur at a large number of banks, the banking crisis spreads and may reach global dimensions. In general, a banking crisis turns into a financial crisis when it becomes a widespread problem. Another category of crises are those of the foreign exchange rate system, in which, the value of a country's currency collapses. An example of a currency crash is the one that took place in Argentina in 2002. The government has fixed the Argentina peso to the US dollar, believing that this will lead to a monetary stability and will ensure economic growth. Once the dollar strengthened against the euro and Brazil devalued the real, the rigidity of the currency system proved harmful for the economy. These events have decreased the competitiveness of Argentinian products in the two areas, the European Union and Brazil, its main trading partners. At the same time, the foreign investor’s loss of confidence caused an outflow of capital leading Argentina into recession (Krugman, 2009, p. 113).

The sovereign debt crisis is another type of crisis that economies may face. This occurs when a national government is incapable of honoring its obligations arising from external and/or domestic debt. The problems

---

[1] Blaise Gadanecz and Kaushik Jayaram presented in "Measures of financial stability - a review" the most common variables in the literature to measure financial stability, the data frequency for these variables (annual, quarterly, monthly, daily) and their significance. The analysis focuses on six main areas namely, the real sector, the corporate sector, households, external sector, financial (banking) sector and financial markets.

[2] One of the banking institutions that faced in the recent economic and financial crisis a massive wave of withdrawals was Northern Rock, the fifth British mortgage lender.

concerning default on domestic debt occurred primarily during banking crises or periods of hyperinflation. The occurrence of such difficulties is based on economic conditions much harsher than those existing in the case of default of external debt. Such events were most common in Latin America (Reinhart and Rogoff, 2012, p. 14).

3. Debt and Financial Stability

Although indispensable in an economy because of their role in facilitating economic activity and welfare growth, high and very high debts can create vulnerabilities which in turn can enhance and contribute to the transmission of shocks in the economy.

The studies in the literature show that there is a strong link between debt levels and the volatilities manifested in an economy. However, empirical evidences show the strong relationship that exists between debt and the characteristics of business cycles, including the likelihood of a recession. Moreover, recessions accompanied by high debt are characterized by a great loss in output and employment.

In a study on the impact of debt on growth conducted on a sample of 18 countries for the period 1980-2010, Cecchetti, Mohanty and Zampolli (2011) show that debt above a certain level has a negative impact on economic growth. The study results also provide the debt levels which would not be indicated to cross. Thus, the government debt limit is 85% of GDP, for the corporate debt the limit is about 90% and about 85% of GDP for households' debt.

The economic crisis has forced many European countries particularly the advanced economies to support the banking sector, this fact led to a significant increase in debt and deficits. An example in this regard is Ireland, which has faced a banking crisis after the bursting of the housing bubble. The increased demand for housing fueled by the credit granted by the banks, did not only lead to the increase of housing prices but also to a massive construction of new buildings. The economic imbalances caused a large loss on the loans granted by the banks to the developers. To stabilize the situation, the Irish government injected 64 billion euros in the banking system, which represents about 40 percent of GDP (Schoenmaker, 2015, p. 2). Thus, the Irish government gross debt registered 116% of GDP in 2014.

To analyze debt indicators we have restricted the analysis to the European Union Member States from Eastern Europe, namely Bulgaria, Poland, Czech Republic, Romania, Slovak Republic and Hungary. The level of indebtedness of a country can affect economic performance on the one hand causing itself the appearance or the amplication of shocks and, on the other hand undermining the ability of households and firms to adapt to new market conditions. According to a research by Schlarek (2004) in the case of developing countries there is a significant inverse relationship between external debt and economic growth, low levels of external debt are associated with higher rates of economic growth. The study also shows that there is a negative relationship between external debt and economic growth and that there is no significant link between external private debt and economic growth. The research was based on a sample of 59 developing countries and 24 advanced economies for the period 1970-2002. Consequently, a high degree of indebtedness can make an economy vulnerable to asset price movements that can amplify shocks and macroeconomic instability affecting therefore the economic growth. Of course, the likelihood of imbalances arising from debt depends significantly on the source of funding. If bank financing is based more on deposits and not on securities or other instruments, the assumed risks are significantly reduced.

The data on Eastern European countries show that in four of the six countries, loans exceed the deposits. Therefore, in case of unexpected withdrawals, the banking system in these countries might face a lack of liquidity (Figure 1).

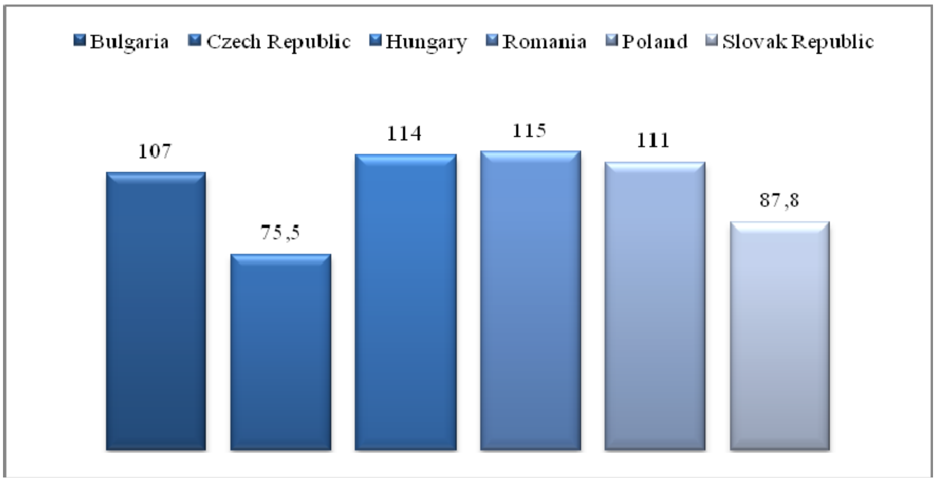

Figure 1. Bank loans (as % of bank deposits), 2012.
Source: OECD, National Banks, Helgilibrary.

The total degree of indebtedness of the analyzed economies differs significantly from country to country, mainly reflecting the importance of the banking sector (Figure 2 and Figure 3). The data show that the debt threshold of 60% of GDP set by the Maastricht criteria is exceeded only by Hungary, which recorded in the last years a debt level of almost 80% of GDP. The data recorded for the countries in the sample indicate that in contrast to the advanced economies that are forced to face a compromise between financing investment projects and reducing their debt, the Eastern European ones can focus their resources on strategic sectors such as infrastructure.

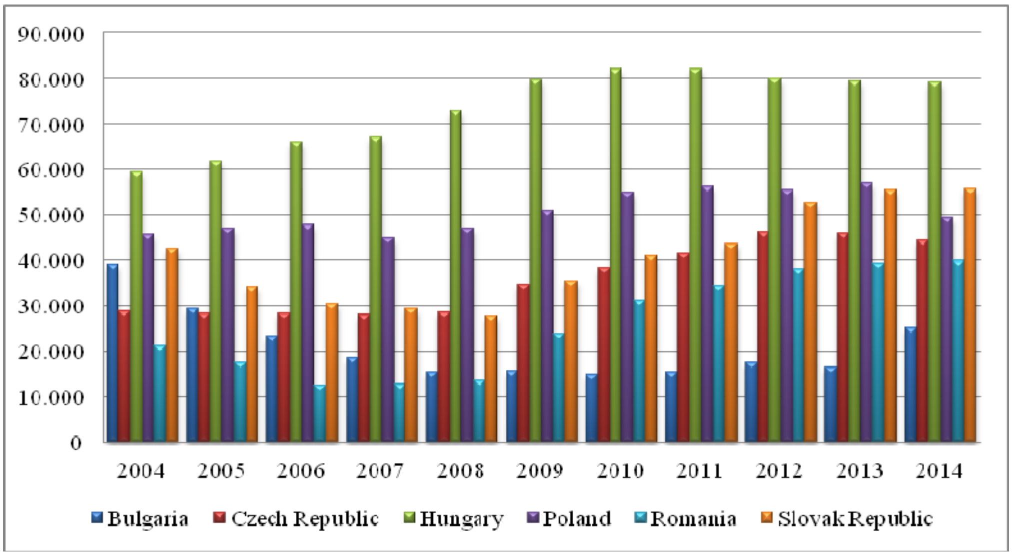

Figure 2. General government gross debt (as % of GDP).

Source: FMI, World Economic Outlook.

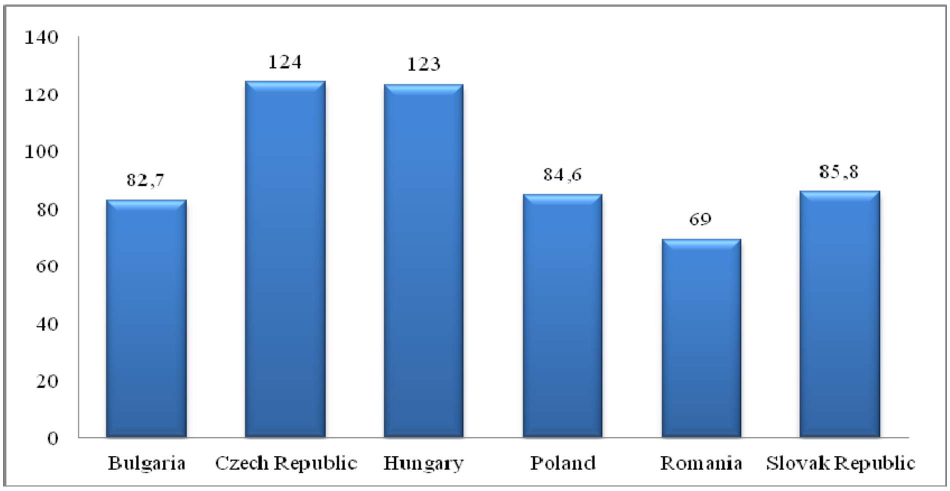

Figure 3. Bank assets (as % of GDP), 2012

Source: OECD, FMI, World Economic Outlook, Helgilibrary.

The risk arising from a country's high level of debt is entering in a recession. When a country's debt increases above the overall trend, the likelihood of a recession increases significantly. For example, if household's debt levels follow the general trend, there is a 10% probability that the economy will go into recession next year. If the household's debt increases by 10% of GDP over the general trend, the probability that the respective country will go into recession next year will also increase to 40% (OECD, 2012, p. 5).

Some studies consider non-performing loans as a measure of the risks assumed by the banks and of financial stability. Although non-performing loans at their current levels are not considered a destabilizing factor with an immediate effect, they compromise the sustained economic recovery and may create significant vulnerabilities in the future (Klein, 2013).

When a country's banking sector is facing a significant increase in non-performing loans, financial stability is threatened. Specifically, a large volume of bad loans in the bank's balance sheet can lead to a lack of confidence from the investors. The bank's solvency is questioned and, therefore, the access to finance becomes difficult. An economy, in which a large bank or several banks in its banking sector are confronted with such a situation, will become vulnerable in terms of financial stability. Highly indebted households and non-financial firms are less able to withstand shocks. They will react by reducing sudden expenses, which will enhance the effects of shocks.

The data on non-performing loans show that in three of the six countries analyzed the share of nonperforming loans in total gross loans increased significantly since 2008. The largest increase was registered in Romania, where this indicator increased ten times between 2008 and 2014. Significant increases were recorded in Bulgaria and Hungary as well. In the other three countries the share of non-performing loans in total gross loans increased on average by 3 percentage points compared to 2008, remaining relatively constant around 5% (Figure 4).

The relationship between debt and stability can also be highlighted by analyzing the role that the first plays in ensuring the implementation of effects of the economic policies in the real economy. When financial stability is at risk and markets are in crisis, the behavior of economic and financial variables may present some nonlinearity that can affect the effectiveness of monetary policy. This means not only that the monetary policy could become less effective in achieving price stability but also that it could have undesirable effects on financial stability itself.

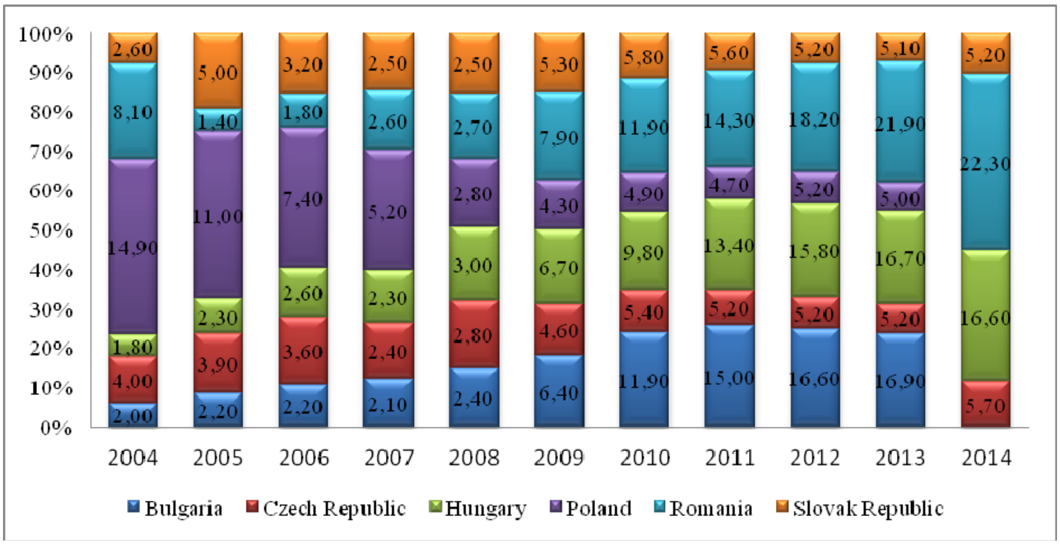

Figure 4. Bank non-performing loans to total gross loans (%).

*the data for Bulgaria and Poland for 2014 are not available

Source: World Bank

This relationship is best explained by Smaghi. He argues that in case of turbulence caused by excessive debt accumulation as a result of very low interest rates over a long period of time, when the bubble bursts and businesses are over indebted, interest rate tends to lose its effectiveness as a tool of facilitating the consumption. Therefore in a debt crisis, a reduction in interest rates is unlikely to be effective because the businesses and financial markets have already accumulated an excessive amount of debt and are no longer willing to absorb more. Thus, the interest rate reduction will not lead to an increase in consumption and investment. Consequently, when the debt becomes unsustainable and agents are forced to reduce consumption in order to repay their debt, monetary and fiscal policies tend to lose their effectiveness in supporting consumption and income growth. In a debt crisis the role that monetary and fiscal policy can fulfill is one of redistribution of the debt burden rather than a stabilization one (Smaghi, 2008).

4. Conclusions

Although the role of debt in facilitating the economic activities has never been questioned, the recent economic developments have raised a lot of questions regarding the volume of these debts and the levels from which they lead to results opposite to those expected. As described by Cecchetti, Mohanty, and Zampolli (2011), the debt is a double-edged sword. Used wisely and in moderation, it clearly improves welfare. But when it is used imprudently and in excess, the result can be disastrous. Therefore, the maintenance of financial stability requires constant monitoring and sustainability of the debt.

The analysis of the data for the Eastern Europe countries respectively, Bulgaria, Czech Republic, Poland, Romania, Slovak Republic and Hungary show that these countries do not have a debt level so high that it will present an imminent danger to financial stability. This may be, partially, due to the lower level of financial development in these countries which did not create a high dependence between the real economy and the funding coming from the banks.

At the same time, the low degree of interconnection between the Eastern European banks and the ones in the advanced economies helped to maintain system stability without massive injection and the massive rise of the debt.

Acknowledgement

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/142115 „Performance and excellence in doctoral and postdoctoral research in Romanian economics science domain”.

REFERENCES

[1] European Central Bank, *Financial Stability Review*, 2014. https://www. ecb. europa. eu/ pub/fsr/ html/index.en.html.

[2] S. G. Cecchetti, M. S. Mohanty and F. Zampolli, *The real effects of debt,* BIS Working Paper. No. 352 (2011). http://www.bis.org/publ/work352.pdf.

[3] International Monetary Fund, World Economic Outlook Database. http://www. imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx.

[4] B. Gadanecz and K. Jayaram, *Measures of financial stability – a review*, 2008, http://www.bis.org/ifc/publ/ifcb31ab.pdf.

[5] M. Isărescu, *Stabilitatea preţurilor şi stabilitatea financiară*, Piteşti, 8 decembrie 2006 http://www.bnro.ro/Prezentari-si-interviuri--1332.aspx?fld_issue_year=2006.

[6] N. Klein, *Non-Performing Loans in CESEE: Determinants and Impact on Macroeconomic Performance,* IMF Working Paper WP/13/72 (2013). https:// www. imf.org/external/ pubs/ft/wp/2013/wp1372.pdf.

[7] P. Krugman, *Întoarcerea economiei declinului şi criza din 2008,* Bucureşti, Editura Publica, 2009.

[8] H. P. Minsky, *Stabilizarea unei economii instabile*, Bucureşti, Editura Publica, 2011.

[9] Organization for Economic Co-operation and Development, *The State of the Banking Sector in Europe*, Economics Department Working Paper no.1102 (2014). http://www.oecd.org/official documents/publicdisplaydocumentpdf /?cote=ECO/ WKP (2013)94&docLanguage=En
[10] Organization for Economic Co-operation and Development, *Debt and Macro-economic Stability*. OECD Economics Department Policy Notes, No. 16 January 2013 (2012).
[11] C. M. Reinhart and K. Rogoff, *De data asta e altfel. Opt secole de sminteală financiară,* Bucureşti, Editura Publica, 2012
[12] A. Schclarek, *Debt and Economic Growth in Developing and Industrial Countries,* 2004, https://lup.lub.lu.se/luur/downloadfunc=download_File&record_OId=1387405 &fileOId=2061440
[13] D. Schoenmaker, *Stabilising and Healing the Irish Banking System: Policy Lessons,* Paper prepared for the CBI-CEPR-IMF Conference, 19 January 2015 https://www.imf.org/external/np/_seminars/ eng/2014/ireland/pdf/ Schoenmaker_ IrishBanking.pdf
[14] G. Schinasi, *Defining Financial Stability*, IMF Working Paper WP/04/187 (2014);
[15] L. B. Smaghi, *Financial stability and monetary policy: Challenges in the current turmoil Speech*, New York, 4 Aprilie 2008. https://www.ecb.europa.eu /press/ key/date/2008/ html/sp080404. en.html
[16] World Bank Database http://data.worldbank.org/indicator;
[17] http://www.helgilibrary.com