

**Katarzyna Kubiszewska**<sup>28</sup>

## THE PROBLEM OF BANKING SYSTEM STABILITY IN LITERATURE

**Abstract:** The article is an overview of the literature output in the field of banking sector stability. In the literature a plethora of definitions of the term may be encountered. There is no universal definition of the term. Therefore, the article proposes a unique division of the existing explanations into the following groups: stability determined by the quality of the banking sector, stability in terms of its influence on the macroeconomic situation and stability understood as the absence of a crisis.

**Keywords:** stability, banking sector

### INTRODUCTION

In literature many definitions of banking sector stability may be encountered. They all define the basic characteristics which must be met by the banking market to be stable. It is also emphasized that stability of banking system can be identified with the stability of the entire financial system. There is no universal definition of this concept, but the existing explanations can be divided into the following groups:

- stability determined by the quality of the banking sector,
- stability in terms of its influence on the macroeconomic situation
- stability understood as the absence of a crisis.

The article is divided into three parts according to the above-described unique division, each part relates to one of the groups of the definition. The preparation of the article was based on the monographic method and the study of documents, as well as a critical analysis of the literature.

### BANKING STABILITY DETERMINED BY THE QUALITY OF THE SECTOR

The first group of definitions of stability of banking systems includes views of Lingren (1997), Iwanicz - Drozdowska (2000), Guitian (1997). According to this view banks constitute the basis of the financial system, whose security and well-being depend largely on the stability of banking system. Problems encountered by banks are expensive for the state, both from the financial as well as the economic point of view. At the same time they may contribute to high costs for the international community, as the banking problems of a single country can spread very easily to other countries and their markets. Therefore, bank security is of interest to many institutions, e.g. the International Monetary Fund, the World Bank.

Stability of banking system corresponds to the fulfilment of their basic functions, which ensures an efficient cash flow between its participants - from those with a surplus, i.e. from the savers - to those borrowing for investment or consumption, i.e. the borrowers. In addition, stability of banking system contributes to the proper valuation of assets, which affects stability of their prices, and guarantees a secure and efficient payment run. A healthy banking system is the one in which individual banks effectively intermediate in financial transactions while meeting the capital requirements set by the law. If banking system is to remain stable and solvent in the long term, individual banks must be profitable, well-managed and effective. Stability of banking system is a concept relatively easy to understand in a general aspect, but it is very difficult to define it in practice, due to the lack of adequate financial data [Lingren, 1997]

---

<sup>28</sup> Gdańsk University of Technology, Faculty of Management and Economics, Department of Economic Analysis and Finance, ul. G.Narutowicza 11/12, 80-233 Gdańsk, Katarzyna.kubiszewska@zie.pg.gda.pl

The literature abounds with discussions on the impact of the banking sector stability and its competitiveness. In some part of the literature there is expressed a view that too much competition may destabilize financial markets and credit institutions, although competition as such does not create instability. Systemic risk may appear irrespective of the character of competition and in different market structures. Hoggarth, Milne and Wood (1998) compared the British and the German banking systems of the last decade of the 20<sup>th</sup> century. They proved that profits of the banks in the UK were significantly higher than in Germany, but also much more variable. The German banking system was less competitive, but more stable, while in the UK the banking sector was more competitive, but at the expense of stability. Vives (2010) agrees with this opinion and claims that although competition itself does not create instability, it may contribute to the emergence of problems related to stability of the banking sectors. A similar issue was raised by Fernández and Garza-Garcia (2015) who studied the banking sector in Mexico.

It is also increasingly emphasized that it is not always the case that stronger competition affects only the deterioration of the stability and efficiency, as an adequate deposit protection policy (e.g. the creation of the deposit protection fund) may have a stabilizing effect on the relationship between competitiveness and stability. Staikouras and Wood (2000) conducted a study in Spain and Greece and proved that the Spanish banking sector was more competitive and stable than the Greek one, where a significant share is possessed by the state treasury and public funds. These views were convergent with the results of studies on various aspects of competition in the market and its stability. In summary, it can be noticed that the main conclusion of the conducted studies is the fact that there is no clear answer to the existence or lack of interchangeability between stability and competitiveness of banking systems.

It is difficult to determine without ambiguity when the banking sector is stable, and when it is not anymore. There are no reliable indicators that would facilitate the determination of the time when the banking sector may lose its stability and when a banking crisis is likely to appear. The level of solvency is in this respect the only predictor. It should be emphasized that solvency of the entire banking sector consists of solvency of each individual bank operating in the market, so even one large bank may cause a decrease in the solvency of the entire system below a safe level. There is also a likelihood of cumulative insolvency as a result of the collapse of a large group of small banks. If the banking system is to be stable, most banks must be permanently solvent. The probability of remaining solvent depends on the profitability of the bank, effective management, sufficient collateral of receivables as well as preparation for possible contingencies in the market [Djiwandono, 1998].

Banking stability corresponds also to the ability of the market to meet its obligations, i.e. to carry out banking operations and to fulfil the role of a financial intermediary [Iwanicz-Drozdowska, 2000]. The healthier the market is, the better it fulfils its role of an intermediary between depositors and borrowers. The more effective process of obtaining savings from the local and international market depositors and lending them to profitable investors by the banking system, the greater the likelihood of the economic growth. The more efficiently and better-managed bank, the greater the possibility to analyse the quality of loans and to monitor the borrowers. On the other hand, when the banking system is weak and ineffective, the investment process works inadequately and the economic growth is threatened. Banks and the banking system fulfil a special role in every national economy, mainly because they are perceived as more vulnerable to instability rather than any other institution or sector, but also due to the fact where it is banks that less affluent people deposit their savings. For this reason, banking system stability can be understood as security of deposits located on bank accounts. To fulfil this task, the banking system must be both managed in a modern way, as well as remain highly competitive. Legislation, supervisory regulations, accounting regulations which support security of the sector are also of immense significance.

Guitian (1997) enumerates three pillars of a paradigm necessary for the stability of the banking sector: the supervisory authorities (prudential regulations), internal controls (risk management in each individual bank) and market discipline (healthy banking procedures). This paradigm must be consistent with the activities aimed at reinforcement of the system, such as responsible corporate governance of banks, professional management authorities, properly functioning supervision and, in the era of globalization of the financial system, effective international cooperation. Trichet (2000) emphasizes that financial stability is a harmonious interaction of various financial institutions, including the quality of the money markets operation.

### **BANKING STABILITY AFFECTING THE MACROECONOMIC SITUATION**

Another group of banking stability definitions refers to the views on the links between financial stability and the macroeconomic situation, including issues of international cooperation, the balance of payments and the foreign debt of individual countries. The problem of the impact of the development of the banking sector and economic development is the subject of many studies. Authors' stances on this issue differ. Some of them accept the thesis on the importance of finance for the economic growth [King, Levine, 1993]. Others do not overestimate their impact [Lucas, 1988]. However, it seems reasonable to claim that ensuring the stability of the financial system is a prerequisite for the implementation of all traditionally perceived purposes of the economy. Due to the dynamic process of globalization, the literature points to the need to take actions aimed at supporting the stability of the international banking sectors and international financial markets. Trichet (2000) sees financial stability as a healthy situation and harmonious interaction of various financial institutions, combined with a secure and predictable functioning of money markets. Both the banking as well as the financial market, as the basic elements of the economic system of each country, have a direct impact on the situation in other markets. It means that if the banking system is not balanced, the more difficult it will be for companies from other economic sectors to achieve this balance. Solarz (2004) claims that financial stability is a state of dynamic and sustainable balance on the interrelated financial markets. He distinguishes the current and future stability of the financial system. The former refers to an acceptable range of changes in the states in individual markets. The future stability – the far-reaching one - refers to the absence of significant weaknesses that might prevent an adequate and timely reaction of financial intermediaries to asymmetric shocks.

Fisher (1997) emphasizes that situation in the banking market has a direct impact on the economic growth. A healthy banking system may become a prerequisite for both national and international financial security and contribute to economic growth. Stability of the national banking system supports macroeconomic stability and long-term balance in an open world economy. In the literature on the relation between these categories, the most frequently pointed issues are the complementarity of financial stability and price stability. There is no doubt that distortions in the financial system may significantly hinder the maintenance of a stable price level. On the other hand, the positive development of the price level will facilitate financial stability. It should be noted that this complementarity concerns a long time period. In the short term, financial stability and price stability may be competitive goals. Financial stability is a lack of changes in prices, which might lead to financial losses. Financial stability requires two items. The major financial institutions must be stable, which means that simultaneously they must be solvent and meet their obligations without delays and without necessity to use external assistance. In addition, the main financial markets must be stable, which means that investors may conduct transactions without fear of price changes in the short term and having ensured that no unforeseeable events should appear.

Numerous studies draw attention to the close relationship between stability of banking system and the monetary and economic policy. Djwandono (1998) claims that both an efficient monetary policy, whose aim is monetary stability, as well as a well-executed economic policy, aimed at the

economic growth cannot be properly implemented without a healthy banking system. It is also regarded that bank stability should be treated as a focus of the monetary policy, as well as price and monetary stability. Also Guitian (1997) believes that the systemic stability of banking system is now seen as a component of the monetary and economic policy. At the same time, as a matter of policy interest, the banking system should strive for economic balance and stability. In the case of an unhealthy banking system, monetary transmission will be weak and, therefore, the effectiveness of the monetary policy will not be achieved [Lingren, et.al 1996]. Banking instability may appear in an unsustainable monetary environment as the activities of banks in the economy struggling with inflation, are not efficient. It also means that a healthy banking system is essential for the effective transmission of signals between the monetary policy and market participants. According to Fisher (1997) the interest of macroeconomics stems from the role of banks in the process of money transfer. The effectiveness of central bank operations on the money or currency markets depends on how the banking system transfers funds to the borrowers and lenders. If the banking system is weak, the transfer process will be weak and inadequate, with a low interest rate on the money market, and unhealthy banks will put pressure on the authorities in situations when interest rates begin to rise.

Stability of banking system consists of three issues, which are of interests to central banks. An efficient and stable payment system is essential for execution of transactions in the economy, where money is a medium of exchange, in order to eliminate barter. The payment system must be stable, because otherwise its users will bear the risk of impairment. Intermediation between savers and investors is supposed to improve the efficiency of the economy by supporting the system of mutual settlements. Banks provide valuable information through monitoring of investment projects, as well as by enabling the cash flow from depositors to investors. Development of financial markets is a process in which also the banking system is involved. When the level of uncertainty lowers and confidence increases, other financial markets are also growing and at the same time the possibility of execution of commercial projects with the use of available cash funds is increased [Guitian, 1997]. The impact of the central bank on market and financial stability was also studied by Żywiecka (2013).

All the researchers' views regarding the stability and health of banking system lead to the conclusion that their significance to the overall economy is so huge due to the immensely important function of the banks as financial intermediaries. The dependence of other sectors of the economy on the banking system proves its importance for the whole economy. Stability and the healthy banking system, combined with the balance of public finances may contribute to the maintenance of the stability of the whole economic system. An interesting stance at the problem of stability of the banking sector is to study it in the context of the impact of public finances crisis [Gemzik-Salwach, 2013]. The influence of insolvency of countries on the situation of banking sectors takes place through various transmission channels [Smaga, 2012]. It illustrates how important role the banking sector plays in the economy.

### **BANKING STABILITY UNDERSTOOD AS THE ABSENCE OF A CRISIS**

The literature most frequently describes financial stability in terms of the absence of financial crises, which can be classified as the third group of definitions of the term in question. However, even such a simple formulation raises a lot of doubts, due to the heterogeneity in the understanding of the financial crisis. It is not easy, because, on the one hand, classical literature on financial crises virtually does not contain their definition, and on the other hand, the review of the literature on empirical studies of crises indicates the existence of many different definitions, whose synthesis by its nature must be of fairly general character.

A financial crisis may be a situation in which a significant group of financial institutions has liabilities exceeding the market value of assets, which leads to panic among bank clients, changes in

the portfolio of assets, the collapse of some financial institutions and government intervention. The term crisis refers to a situation in which an increase in the share of not serviced loans, increased losses resulting from excessive exposure to foreign exchange risk, interest rate gaps, contingent liabilities, and a decrease in the value of invested assets cause general problems with solvency of the financial system and lead to the collapse of some companies, their mergers and restructuring. Bordo, Eichengreen (1999) deem the financial crisis as episodes of rapid changes in the financial market, connected with the scarcity of liquidity and insolvency of the market participants, as well as the possibility of government intervention designed to prevent it. Iwanicz - Drozdowska (2000) writes that Allen defines a crisis as a situation in which the debtor is unable to repay their debts and cannot in any way obtain additional financing. The spread of the financial crisis from a single entity to many participants is reflected in the disturbance in the performance of the basic functions by the system. As a consequence, there occur disturbances in the payment system and in the process of allocation of financial resources and the sudden unpredictable changes in asset prices in the market. Further, there are two approaches to financial crises. In the narrower one, shaped by monetarists, the financial crisis is associated with a banking run. A bank run results in disturbances in the money supply, which leads to a decline in economic activity. Lower asset prices and a rising number of corporate bankruptcies are not - in themselves - a financial crisis. Such a state is referred to in the literature as the financial pseudo-crisis. The wider one defines the concept of a financial crisis as a situation in which there occurs at least one of the following factors: falling asset prices, bankruptcy of large financial and non-financial institutions, deflation or lower inflation, and the foreign exchange market turmoil. Davis (1992), in turn, considers a financial crisis as a process leading to macroeconomic depression and mass bankruptcy of financial institutions and dysfunction of the payment system. According to Kamiński and Reinhart the theory of asymmetric banking crises indicates that the occurrence of crises when negative publicity is spread is more likely as a result of artificial maintenance of a demand for loans and the spread of optimistic expectations [Iwanicz - Drozdowska, 2000].

However, Crockett [Kiedrowska, Marszałek, 2003] claims that the absence of stability should not be confused with a crisis. He defines the notion of financial stability as the state in which the economic activity is not affected by changes in asset prices nor by the problems of financial institutions in meeting their obligations. He notes that a threat to stability may only be significant, in terms of quantity, asset price changes and problems affecting many financial institutions. Periods of asset prices rises or falls as well as bankruptcy of individual institutions are an inherent feature of economic life.

As shown above, there are many ways to explain the concept of banking stability. According to Solarz (2004), economic theorists propose normative definitions of the financial system stability, which conventionally can be divided into three groups. The first one treats system stability in the sense of an attribute – enumeration of financial stability symptoms and situations indicative of its absence. The second is the institutional definition - factual presentation of financial system stability as an institution of the mature market economy, and the third - the process conceptualisation of the definition - perception of the decisions sequence from the point of view of the authority responsible for financial stability of the country. The first group of definitions contains the definition adopted by Davis (2002), according to which the systemic risk, disturbances, instability, which with high probability threaten the financial crisis is defined as a serious collapse of the financial system, which reveals itself in the efficiency of the clearing and settlement system or in the impossibility to allocate a loan for its productive use. Financial system stability understood in the sense of an attribute may also include the concept of the cycle of systemic crisis in the banking sector, which consists of:

- a state of balance;

- an increased demand of economic operators for liquidity,
- introduction or extension of the guarantee on deposits,
- reduction of the effects of loans of last resort – elimination of their negative effects to curb inflation,
- change of the strategy of sector stabilization,
- identification of the scale of losses,
- launch of a sector restructuring programme by the parliament,
- decapitalisation of credit institutions,
- divestitures of financial institutions as technical bankrupts or their nationalisation,
- regaining depositors and borrowers' trust.

Institutional arrangements regarding responsibility for the financial system stability are different in each country. According to Solarz (2004), the institutional approach to the stability of banking system is the fulfilment of the main goal set to the safety net and the main institutional authority, which is responsible for the stability of the financial and banking systems. Overall, there exist four solutions:

1. it is the central bank that is solely responsible for the state of the financial system,
2. it is the ministry of finance that is solely responsible for the state of the financial system,
3. it is a specially appointed state authority that is solely responsible for the state of the financial system,
4. it is the safety net covering all of the above mentioned institutions and funds guarantying the return of deposits for small savers and investors that is responsible for the state of the financial system.

The process conceptualisation of the financial system stability disturbances can be divided into three groups:

1. a loss of credits or a trading loss directly related to the real economy,
2. excessive volatility of institutional investors' expectations and their herd reaction to significant changes in the macroeconomic balance,
3. technical nature, which is expressed in a loss of liquidity of financial institutions and markets and inefficiency of securities designed to amortize the identified risk.

The process definitions of the domestic banking system stability stress that stability of the financial markets and institutions is resultant from many interrelated decisions. Many theories provide the basis for defining stability of financial markets in such a manner:

- theory of the credit cycle - explains financial crises by too violent borrowers' response to economic fluctuations, which results in an excessive credit limit in the phase of a standstill and recession as well as excessive expansionary credit in the phase of economic recovery;
- theory of error in the monetary policy – the monetary policy of the central bank inappropriate to the economic situation leads to disturbances in the real economy, which return to the financial system and cause its slackness;
- theory of uncertainty or a lack of trust to the policy makers - lack of transparency in the market for its participants leads to a loss of trust in the rationality of decisions taken by the monetary authorities;
- theory of herd mentality - market participants and its regulators are inclined to underestimate the risk and to accept low capital adequacy ratio of credit institutions;
- theory of asymmetric information and agency costs – moral hazard causes a shift of risk from borrowers to lenders;
- theory of overregulation - a network of institutions regulating the financial system leads to a sharp decline in the profitability of financial intermediaries and deformation of market competition;



- theory of a wrong order of liberalization of short-term capital flows - leads to excessive competition in the financial markets;
- theory of excessive competition – competition conditions impose the rate of return on capital below the expectations of investors;
- theory of excessive participation in the sector of institutional investors - institutional investors are not directly familiar with lenders, they rely on formal econometric models, which encourages herd behaviours and panic in the market;
- theory of incorrect choice of exchange rate regime - an escape from the national currency in the settlement of loans and borrowings leads to the accumulation of foreign exchange risk when rapid depreciation of the national currency occurs.

Although there exist many theories concerning the determination and explanation of the concept of banking stability, it should be noticed that they all form the basis for determination of the main features indispensable to achieve and maintain stability of banking market in practice.

## CONCLUSIONS

As shown above, in the literature there does not exist a universal definition which would explain stability of banking system. Due to the special nature of the financial market, it affects other parts of the economy. The state of balance and development in the banking sector influence the situation in other areas of the economy. In general, we can say that definitions relating to stability of banking system focus on three groups: the quality of the system itself, its impact on the macroeconomic environment and the absence of crises. In light of the foregoing considerations, it may be concluded that stability of banking system depends on both the banks themselves, as well as on institutions external in relation to banks.

## REFERENCES

1. Bordo M., Eichengreen B. (1999), *Is Our Current International Economic Environment Unusually Crisis Prone?*. (in) Gruen D., Gower L. (1999), *Capital Flows and the International Financial System*, Sydney, pp.18-75.
2. Davis E.P. (1992), *Debt, Financial Fragility and Systemic Risk*, Oxford.
3. Djiwandono S. (1998), *Banking System Soundness And Macroeconomic Management: The Recent Indonesian Experience*. Introductory remarks during symposium: Towards the Restoration of Sound Banking Systems in Japan - Its Global Implication, International Monetary Fund.
4. Fernández R.O., Garza-García J.G. (2015), *The relationship between bank competition and financial stability: a case study of the Mexican banking industry*. *Ensayos Revista de Economía*–Volumen XXXIV, No.1, 2015, pp. 103-120
5. Fisher S. (1997), *Banking soundness and the role of the Fund*. *Banking soundness and Monetary Policy*, IMF.
6. Gemzik-Salwach A. (2013), *Wpływ kryzysu finansów publicznych na stabilność sektora bankowego*. *Nierówności społeczne a wzrost gospodarczy*, nr 30, pp. 354-364.
7. Guitian M. (1997), *Banking soundness: The other dimension of Monetary Policy*. *Banking Soundness and Monetary Policy*, International Monetary Fund.
8. Hoggarth G., Milne A., Wood G. (1998), *Alternative Routes to Banking Stability: A Comparison of UK and German Banking Systems*. *Financial Stability Review*, London, pp. 55-69.
9. Iwanowicz – Drozdowska M. (2000), *Determinanty bezpieczeństwa banków w świetle analizy wybranych kryzysów bankowych*, Warszawa.
10. Kiedrowska M., Marszałek P. (2003), *Bank centralny i stabilność finansowa*. *Bank i Kredyt* nr 6.

11. King R.G., Levine R. (1993), *Finance and growth: Schumpeter might be right*. Quarterly Journal of Economics 108(3), pp. 717–737.
12. Lingren C.J., Garcia G., Saal M. (1996), *Banking System and Macroeconomic Policy*, IMF.
13. Lucas RE. (1988), *On the mechanics of economic development*. Journal of Monetary Economics 22(1), pp. 3–42.
14. Staikouras C., Wood G. (2000), *Competition and banking stability in the euro area: The cases of Greece and Spain*. The Journal of International Banking Regulation 2, pp. 7-24.
15. Solarz J.K. (2004), *Bankowość międzynarodowa*, Warszawa.
16. Smaga P. (2012), *Powiązania między sektorem bankowym a kryzysem zadłużeniowym w strefie euro*. Bezpieczny Bank. Nr 3(48), str. 7 – 31.
17. Trichet J.C. (2000), *Introductory Remarks*. Independence and Accountability Developments in Central Banking, Bank of France.
18. Vives X. (2010). *Competition and stability in banking*, IESE Working Paper No. 852.
19. Żywiecka H. (2012), *Stabilność finansowa jako cel współczesnego banku centralnego*. Bezpieczny Bank. Nr 3(48), str. 51-74.