

# The Lessons from the Financial Crisis and the Post Crisis Period

## The Case of a Country with a Currency Board Arrangement

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### Summary:

The paper analyses the main issues related to the global financial crisis of 2008-2009 and the post-crisis period, as well as the effects of the global financial crisis in the banking and non-banking financial sectors. It addresses the effects of the financial crisis in a country with a Currency Board Arrangement (CBA) such as Bulgaria, where the mechanisms of monetary policy have been blocked in principle, which in turn has a direct influence on the banking system and on the entire economy. The options for the management of financial crises are also discussed as the emphasis is on crisis management on the macro level. The main points are focused on the lessons drawn from the financial crisis and from the post-crisis period with regard to the different segments in the financial sector.

**Key words:** financial crisis, bank crisis, financial assets, banking sector, non-banking sector, shadow banking system, recession, Currency Board Arrangement (CBA), financial crisis management, bad loans, contagion effect, financial safety net.

### Introduction

A huge number of publications devoted to the global financial crisis and particularly to its lessons have been published. Many studies are written in a popular language along with research which is more academic in nature<sup>1</sup>. It is therefore very difficult for researchers who start to write on the global financial crisis to add new and original ideas to the issue. However, they present their own interpretations of already known developments and draw the lessons from the crisis, though the latter are often based on comparatively limited observations. The peculiarities of the national economies such as the level of development, the type of the monetary regime, the development of financial intermediation, the participation in a certain currency area, and others should be addressed and hence each analysis of the crisis adds to the overall description of the situation.

There are various definitions of financial crisis depending on the level of generalization, i.e. if the researcher aims at either making general conclusions or at describing the effects of the crisis in greater detail. The 'financial crisis' term is generally applied to

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<sup>1</sup> In Bulgarian there are a number of publications translated from foreign authors. We would like to note the books of two Nobel prize winners, which are as follows: Stiglitz, J. *Free Falling*, published by Info DAR, 2010 and Krugman, P. *The Return of the Depression Economy and the Crisis of 2008*, published by East-West, 2009.

the situations in which financial assets lose most of their value, including the cases of the assets held by financial institutions. Traditionally, financial crises are related to bank panics and failures, because banks are the major financial intermediaries that mainly hold financial assets in their balance sheets. Furthermore the 'financial crisis' term denotes the collapse on the stock exchange market, the emergence of the financial bubbles, currency crises and countries' defaults<sup>2</sup>. According to Professor Richard Portes, financial crisis means disturbance on the financial markets which destroys the market's ability to allocate capital and thus disrupts financial intermediation and investments<sup>3</sup>.

The analysis of the financial crisis that plagued the world in the period between 2007 and 2009 is often extended to the discussion of the recession in the real sector of the economy triggered by the decrease in lending by financial institutions due to the impaired quality of their financial assets. For instance, the crisis in Bulgaria has been generally seen as spreading to the real sector but not to the financial one. At the same time the share of bad loans in banks' portfolios has been growing steadily. In the period between September 2009 and December 2012 the gross share of loans overdue more than 90 days increased from 8.53% to 16.62%, according to the BNB Banking Supervision Department data.

The beginning of the financial crisis is considered to be July 2007 when the hedge funds of Bear Stearns became insolvent, the crisis of IKB and Sachsen LB started and in August 50 American

mortgage companies failed or were sold. BNP Paribas, Barclays and West LB were also affected. After the peak of the financial crisis the financial markets in the developed countries started to recover slowly. At the same time, there are a small number of countries where GDP continued to grow in 2008-2009, albeit in some cases growth was very weak. The Fortune Magazine points 5 countries that have weathered the crisis in the best possible way, among which are Australia, Colombia, Peru, Singapore and Uganda<sup>4</sup>. The case of Poland, which is the biggest EU member state in Eastern Europe is very interesting, where in 2008 the GDP increased by 5% and in 2009 - by 1.6%<sup>5</sup>, which was explained by the country's comparatively small share of exports (40% of the GDP) and accordingly its lower dependence on exports, its large domestic market, the flexible exchange rate, the monetary policy pursued by the central bank, the stability of its banking system of financial market (there was 33% rise in the stock exchange prices in 2009).

The current paper focuses on the effects of the global crisis in the financial sector. There was a collapse in all segments of the financial sector worldwide.

In the progress of the crisis there is serious state intervention almost everywhere in the world, mainly through central banks' operations but also by reallocating budget funds to the threatened financial institutions. Subsequently, such cases of intervention became the subject of serious debate regarding their efficiency and practical results. In general the financial crises brought losses to

<sup>2</sup> For more information see: Financial crisis of 2007-2010, [en.wikipedia.org/wiki/Financial\\_crisis\\_of\\_2007](http://en.wikipedia.org/wiki/Financial_crisis_of_2007); Steil, B. Lessons of the Financial Crisis, Council of Foreign Relations, Council Special Report N45, March 2009, Washington D.C.

<sup>3</sup> For more information see: Portes, R. An Analysis of Financial Crisis: Lessons for the International Financial System, FRB Chicago/IMF Conference, 8-10 October 1998, p.1.

<sup>4</sup> According to the information published in the newspaper "Klasa", 5.07.2010.

<sup>5</sup> According to information from: [www.moneyweek.com/news-and-charts/economics/](http://www.moneyweek.com/news-and-charts/economics/); [www.imf.org/external/pubs/ft/survey](http://www.imf.org/external/pubs/ft/survey).

economic agents both as consumers and producers and to the state as an economic agent. Indeed, each crisis is a kind of market "cleansing" from inefficient players, but it also has a huge social cost for the current generation. However, the financial crisis teaches lessons, creates "memory" to counteract the possible future crises, although it is really amazing that managers, policymakers and even ordinary people tend to repeat the same mistakes over and over again.

The paper is organized as follows. Part 1 discusses the situation in the banking sector and some conclusions are drawn on the micro and macro level regarding the impact and consequences of the financial crisis. The scope of the analysis in Part 2 is concentrated on the non-bank financial sector, which, despite its limited scale due to the crisis, continues to be an important channel for providing funds to the economy. Part 3 refers to the specific problem of the behaviour of the financial sector in a country with CBA and the lessons drawn from the financial crisis for the country. Part 4 discusses the issue of financial crisis management on the basis

of the experience of a small EU economy with a CBA. The conclusion summarizes the analysis made in this paper.

## 1. The Banking Sector

Historically and traditionally financial crises are generally related to the banking sector, because banks manage mainly financial assets and in a period of a crisis these assets depreciate, in some cases severely, and also because the banks are the biggest financial intermediaries. Due to the large-scale financial crisis in the USA and in a number of European countries the state provided financial support to the bigger banks, mainly aimed at restoring public confidence in the financial system and preventing bank runs. The measures undertaken by central banks and governments proved to be efficient for the respective situations. However, there emerged a number of questions related to the responsibilities of bank management, professional experience, adequate risk analysis in bank lending, and other problems.

In Bulgaria, being a country with CBA, there have been no cases of providing

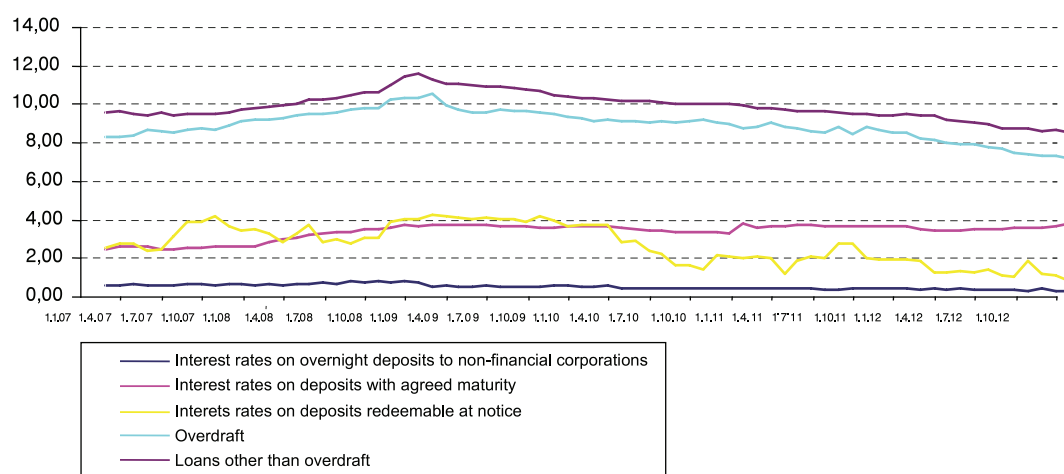


Fig. 1. Interest rates on Deposits and loans to non-financial corporations in BGN

Source: BNB Statistics

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financial support to the banks by the central bank or by the state since the beginning of the crisis in 2007 until early 2013 (in a situation of CBA in Bulgaria

to the regime of CBA in Bulgaria and the lack of alternative sources of funding such as the central bank, which was the case in the other EU countries.

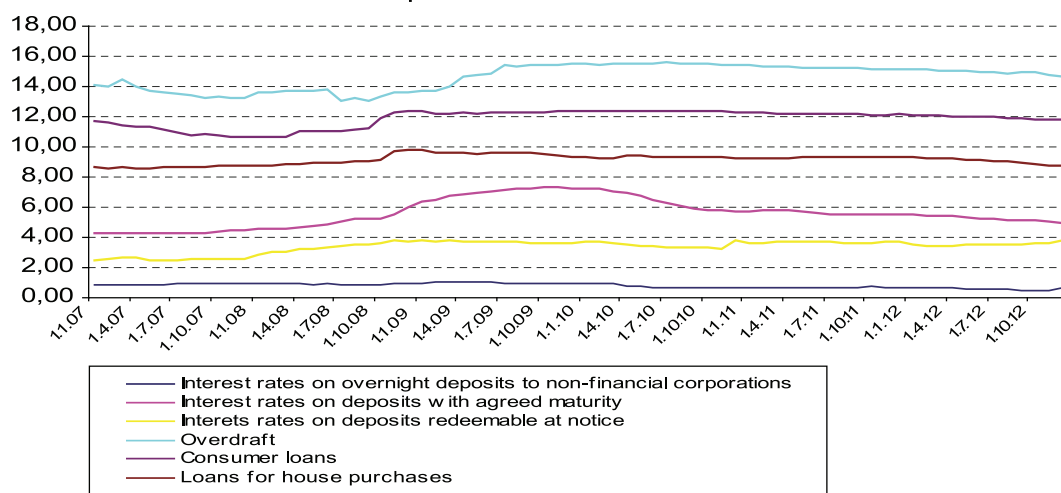


Fig. 2. Interest rates on deposits and loans to households in BGN

Source: BNB Statistics

the central bank can provide financial support to the banks in cases of systemic liquidity risk). Despite the lack of discount policy, there was periodically tension in the banking sector due to lack of liquidity, an increasing number of insolvent clients and bad loans.

Since 2009 bank interest rates on deposits have increased, which was due to liquidity shortages and austere financial situation for the mother banks, posing risks to the banking system. The increased price of the attracted resources caused an increase in the interest rates on loans, which is evident in figure 1 and figure 2 below. This combined with the stricter requirements to debtors led to a credit crunch. The maintenance of higher interest rate levels by banks was mainly due

The higher level of interest rates on loans affected the real sector. The vicious spiral appeared – restricted lending due to increased risk led to excess liquidity for some banks. The evidence for that was the low level of interest rates on the interbank market<sup>6</sup>. As far as the central bank is able to intervene in the conditions of CBA in Bulgaria, it has only one of its instruments to use – the minimum required reserves. The central bank tried to provide additional liquidity in the banking system by applying this instrument of monetary policy (at the end of 2008 the level of the minimum required reserves fell from 12% to 10%).

Similar to other countries, a shadow banking sector<sup>7</sup> exists in Bulgaria as well and it is represented mainly by the specialized

<sup>6</sup> As of the 1st of March 2013 the LEONIA reference rate is 0.02% compared to the 30th of December 2008 when the index was 4.07% (BNB Statistics).

<sup>7</sup> According to a definition of the Financial Stability Board cited in the Green Paper on Shadow Banking by the European Commission as of the 19th of March 2012, the shadow banking system is defined as the system of credit intermediation that involves entities and activities outside the regular banking system.

non-bank companies that provide loans. In the conditions of a financial crisis such companies try to replace the banks in their role of lenders, as the banks are in principle more conservative. Those companies grant loans at less strict conditions, but at a significantly higher interest burden. Some even display a very aggressive behaviour on the market. There is no official information on the size of that lending. Because these companies are not within the scope of the banking supervision, the Bulgarian National Bank (BNB), the central bank of Bulgaria, made changes in its legal framework, by including loans granted by such companies in the Central Credit Register. That change was prompted by the necessity to trace the total indebtedness of banks' clients.

The existence of shadow banking in the country is due to the fact that those financial institutions provide an easier access to products and services that substitute the bank ones even though those products and services are provided at higher prices. Furthermore, it is considered that the risk for the creditors is lower as those companies grant loans at lower rates and they provide lending to a big number of clients. As part of the financial system those companies are risky and may stimulate financial abuse. Therefore measures for their regulation should be undertaken. There are initiatives in that area undertaken by the European Commission such as the Alternative Investment Fund Managers Directive which introduces legislative measures regarding hedge funds and private equity funds, UCITS V which regulates money market funds (MMFs) and exchange traded funds (ETFs) but it is considered that there are still areas that need regulation and supervision in order to mitigate the possible risks arising from those activities. In the case of Bulgaria

those companies occupy a market segment in the field of lending in which cooperative banks traditionally operated until the World War II. Compared to the rest of the banks, cooperative banks developed activities on a local level and they were easily accessed by citizens<sup>8</sup>.

During the transition period in a number of Eastern European countries local banks were privatized by foreign investors – mainly banks and financial institutions. Such investments have positive influence on the local banking sector, because the owners are big institutions, which together with the aim to achieve higher profits on a new market, also implement their know-how in the country, which boosts the development of the national banking system. In Bulgaria those banks operate in an environment of a strong concentration of the banking sector and as of December 2012 the five biggest banks held 50% of the total assets of the banking sector.

The situation described above could bring the so called *contagion effect*, where the problems of the mother bank are transferred onto the local level.

The case with the presence of the Greek banks, subsidiaries and branches, albeit limited, is also interesting as in Bulgaria and some other Balkan countries the Greek investments in the banking sector are huge. In the post-crisis period that problem is still evident regarding mainly the confidence in those institutions as there are no cases of bank failures. According to B. Jacquillat and V. Levy-Garboua, on a global scale through the contagion effect the crisis was transferred from the financial market, where it actually started in the summer of 2007, onto the banking sector, from where the contagion effect spread to the real economy and at the end of 2008 the whole world

<sup>8</sup> In the beginning of the transition period in Bulgaria an attempt for restoring cooperative banks was made as until 1997 the legislation allowed the existence of such institutions. However, cooperative banks were not established in the country as there were doubts for their effective regulation and supervision.

suffered from a recession<sup>9</sup>. Respectively, those researchers describe the mechanism of the contagion effect as follows: the bank's own capital seriously decreases as a result of the assets' devaluation, the capital structure worsens and the banks are not able to comply with the supervisory requirements. The shareholders are forced to increase the capital and, according to B. Jacquillat and V. Levy-Garboua, the required additional capitalization stood at approximately 1 trillion USD. That amount proved insufficient for the creation of provisions for the devalued assets, which amounted to more than 1.3 trillion USD. The lack of sufficient capital forced the banks to sell assets at decreasing prices, which caused further devaluation of their assets and worsened their balance sheets. All these factors decreased the possibilities for lending – a situation which is known as a *credit crunch*. One of the transmission mechanisms connecting the financial sector with the real sector was activated, which affected the companies' profitability, caused decrease in the stock exchange prices and, due to the markets' globalization, affected all countries. The main problem during the crisis was the rapid growth of bad loans. That problem was widely discussed in Europe and in the USA after the beginning of the crisis in 2007, and raised the issue of the efficiency of banking supervision, the established requirements for the collateral, the reporting of some products in the banks' balance sheets and supervisory purposes, that is those related to securitization. New regulatory initiatives appeared on the EU level related to the activities of credit rating agencies, reporting of securitized loans, the requirements for clearing and

settlement of derivatives, and other things. The Bulgarian capital market as a market of local importance has its specific features as derivative products are not traded on the stock exchange and there are very rare cases of securitization of loans performed by the Bulgarian banks.

Since the beginning of the financial crisis the share of bad loans in Bulgaria has been increasing and, according to the central bank data as of December 2012, the amount of the loans gross of provisions overdue by more than 90 days was about 16.62%<sup>10</sup>, which in cases of lack of provisions and a constant rate of increase could be considered as dangerous. According to sources outside the central bank and banking supervision, the actual amount of those loans is by several percentage points higher. A common bank practice was the renegotiation of the loans with clients that are in a difficult financial situation and as a result such loans are reported in a better risk classification group.

The reasons for the increase of bad loans are identical for each banking system but the CBA in the country adds some peculiarities as the central bank is not allowed to grant loans to the banks in order to support their liquidity. That issue should be analysed separately for non-financial corporations and for households because different factors affect the indebtedness of both sectors. The lessons from the financial crisis and post-crisis period are numerous for the banking sector. Below, such lessons at a micro and macro level are to be further elaborated upon.

At the micro level they involve:

*First*, the crisis brings a number of lessons for bank management and bank

<sup>9</sup> For more information see: Jacquillat, B., V. Levy-Garboua, "Les 100 mots de la crise financière", PUF, 2009, p. 84.

<sup>10</sup> There are two standards for reporting bad (overdue) loans. According to the first standard the figure includes also the restructured loans. According to the second standard bad loans include only those loans that are overdue of more than 90 days. Net overdue loans of more than 90 days is 10.62% as of December 2012 according to the BNB data. The amount of the net overdue loans is calculated as the allowances for provisions are subtracted from the gross value of the overdue loans.



managers. For Eastern European countries, which have passed a transition period where the economy is unstable, banking as a professional activity is something comparatively new. Contemporary information technologies, innovative financial products, the educational and the professional level of bank experts as well as the level of the development of the management in a narrow sense offer new possibilities for managers across the world. In the Eastern European countries, including Bulgaria, the development in the field is partly boosted by the inflow of *know-how* through the banks' privatization by foreign investors – in most of the cases banks and other financial institutions. As a result of the financial crisis and the pressure that was experienced by the banking system, bank managers became much more cautious in all respects – assessing clients' creditworthiness, evaluating risk and administering the entire process of lending.

*Second*, the crisis revealed a specific risk inherent to the whole banking system and to each separate bank – the danger of strong credit expansion, which in a period of euphoria is being fed by itself. In Bulgaria the decrease in the prices of real assets created liquidity problems for banks, which further aggravated by the limitations of the CBA, given that banks cannot take loans from the central bank. Hence the practices in assessing the amount of the loan, its maturity, currency, installment plans, debtor's revenues, type of collateral, conditions for renegotiation, and other things were revised.

*Third*, the issue of high interest rate on bank deposits and banks loans amid the crisis was subject to heated public debate. In Bulgaria due to the limitations of CBA the central bank could not provide loans to the banks and thus could not influence the interest rate in the country. Under the rules of the CBA the central bank could grant loans only in cases of a

systemic liquidity crisis as there are highly restrictive requirements to banks. Therefore the interest rate levels are set entirely on a market basis. Public authorities made attempts to influence indirectly the level of the interest rates by calling on banks to decrease the interest rate, which did not bring any result. Such attempts were also made by passing amendments to the Law on Consumer Credit. The lesson is that under the conditions of the CBA the state's attempts to affect the interest rate levels cannot possibly be successful, though the end of the recession favours lower interest rates. Such attempts on the part of the state could only bring bad reputation to the respective state authorities, which explains the central bank's behaviour in this field.

At the macro level the lessons drawn from the financial crisis are as follows:

*First*, during the crisis banks' regulation and supervision was heavily criticized and criticism was extended to the regulation of the financial sector which was seen as inefficient and too liberal. A political consensus on that issue was reached, which was reflected in the decisions of the G20 leaders. This paper holds the view that the situation should be subject to a thorough and careful analysis. The general opinion was that the crisis in the financial sector was due to insufficient regulation (mainly considering the legal framework) and supervision flaws, which implicitly suggest that in case of stronger and more restrictive control and regulation, financial crises could possibly be averted. This prompted the topical regulation – deregulation – reregulation debate, on which a lot of literature exists. Generally speaking, we support the opinion that the existence of a very restrictive control, such as the one over the remuneration policy of bank managers, could decrease partly banks' expenditures but could simultaneously decrease managers' efficiency, which may

have a negative impact on lending and other banking operations and ultimately on the financial intermediation through banks. As far as this involves restrictions and changes in the remuneration policy for managers, particularly regarding its constant and variable part, it is highly likely that banks' shareholders should address that issue. Striking the balance between free competition and regulation is not an easy task, which prompted a number of authors (e.g. the Austrian school) to hold the opinion that when the results from state intervention are unclear, little intervention is the better option.

*Second*, during the crisis a potential risk of "contagion" of the negative effects of the problems in the banking system abroad appeared in Bulgaria. In our case that risk was mainly due to the significant presence on the local market of Greek banks, both subsidiaries and branches, whose mother banks were facing financial difficulties. Some observers believed that they would have a moderate influence on the country's banking system. In the specific case most observers seemed surprised by the quick worsening of the state budgets in some member states.

*Third*, during the crisis, especially at its onset, the role of the financial safety net was strengthened, namely the component of the deposit guarantee. We envisage not only the psychological effect of such measures. The undertaken measures related to the deposit guarantee limited and even averted the risk of bank runs. In this case policymakers had an adequate reaction as they increased the coverage of the deposit guarantee and shortened the deadlines for payments. In the EU in particular much attention is paid to the protective schemes laid down in the amendments to the directives in question<sup>11</sup>.

Bulgaria's experience strongly confirms the positive role of guarantee schemes, although the current level of full protection to depositors increases moral hazards as depositors base their decisions to open accounts with different banks on the guaranteed amount and not on the financial health of the respective institution.

The aforementioned effects are short-term in nature. In the long run the role of the guarantee schemes depends on their interaction with the other components of the financial safety net, such as the existence of a lender of last resort, the effective regulation and supervision, as well as the existence of single supervision at the EU level.

## 2. The Non-Bank Financial Sector

The non-bank financial sector in Bulgaria covers non-bank investment intermediaries (the Bulgarian banks which are universal banks can also operate as investment intermediaries if that activity is included in their license), insurance companies, pension funds and the Bulgarian stock exchange.

In the majority of the emerging markets, non-bank financial intermediation, in particular the capital market, is underdeveloped, and is even at its initial stage of development. Nevertheless, the role of the non-bank financial sector in providing funds to the economy is important, especially when it is seen in a perspective. In Bulgaria the financial crisis affected the non-bank financial sector in its upward phase of development and hence it had negative consequences and a stronger effect. The stock exchange capitalization in the middle of 2007 reached 50% of the GDP compared to December 2012, when it stood at 12.7%<sup>12</sup>.

<sup>11</sup> Despite the existence of directives on deposit guarantee and investment compensation there is a proposal for a directive that provides analogical protection to the clients of insurance companies in cases of failure to be created.

<sup>12</sup> According to the Bulgarian Stock Exchange (BSE) data as of 28th of December 2012 published on the BSE Internet site.



The following lessons for the non-bank financial sector can be drawn:

At the micro level they involve:

*First*, the crisis exposed the huge fragmentation of investment intermediaries (brokerage companies), though it had been evident for a long time. The prerequisites for that disintegration partly involve the possibility to license a brokerage company with a very small initial capital and the legal requirement providing for three levels of capital which allows brokerage companies to perform various types of operations. On the other hand, the majority of commercial banks that are of universal type can operate as brokerage companies as well. Some are very active on the capital market regarding the number of clients and the traded assets.

It is common for a small brokerage company to have a weaker management because such a company cannot attract better experts through higher salaries (though this is not always the rule). The staff of some companies consists of few people who work as brokers on other people's account and when the prices of the financial instruments plummeted, the revenues from commissions to those companies promptly fell. Simultaneously, the bigger investment intermediaries working on their own account turned out to be better prepared to weather the crisis due to the diversification of their activities. Typically, those brokerage companies are structured as a holding, which also contributes to their stability.

The crisis highlighted the necessity for integration in the sector, which did not happen earlier though it was practically required. In similar cases the state regulator acted as an accelerator of the process,

even by applying certain administrative tools like higher capital requirements. Such fragmentation existed in the banking sector before but it was slowly overcome despite the competition in the sector, which suggests that competition, not state regulation encourages integration. During the crisis a certain number of small investment intermediaries revoked voluntarily their licenses and ceased operations, which is further evidence pointing to high level of fragmentation in the sector<sup>13</sup>.

*Second*, the crisis exposed the advantages of the banks operating as investment intermediaries. This problem can be further discussed as it concerns the topical issue of separating investment from retail banking services, considering that in case they are provided by one corporate structure, this creates higher risk for retail clients. Regarding that issue we should note that the experience of a small economy as Bulgaria is useful, though not revealing. At the micro level Bulgarian banks proved to be well managed, including their operations as investment intermediaries<sup>14</sup>. We should note banks' improved capital base formed under the requirements of BASEL II<sup>15</sup>, the better opportunities to attract investment experts as well as the activities within the holding, which creates stability for the banks' frequent clients.

The lessons for the macro level are as follows:

*First*, in most Eastern European countries there is an unfavourable coincidence regarding the capital market, namely that the latter's upward development coincided with the start of the global financial crisis. This is evidenced by the increased amount

<sup>13</sup> Since the beginning of the crisis by the end of 2012 the number of the non-bank investment intermediaries that voluntarily revoked their licenses was approximately one third of all companies.

<sup>14</sup> That fact is also supported by the stress tests performed by the national banking supervisory authorities, despite the results from them were not publicly announced.

<sup>15</sup> The required minimum capital for a bank license is equivalent to 5,11 mln. EUR but practically the majority of the banks, incl. the smaller ones have higher share capital.

of the financial instruments traded on the stock exchange, resulting in higher stock exchange capitalization and direction of part of the national savings to the capital market. Definitely, the negative side of that process is the risk of possible financial bubbles, because the increasing prices of financial instruments boost the investors' euphoria, which may distort their reasonable expectations.

As a rule small countries have a shallow and weaker liquidity on their capital markets, which renders those markets more vulnerable to financial crises. The Bulgarian regulatory authorities and investment community try to urge state authorities to support the sale of minor ownership share packages of the already privatized state companies on the stock exchange, which is expected to increase the volume of traded instruments. Even in case of such indirect support, such operations are expected to have a short term effect.

*Second*, there emerges the general question of whether a small country needs a stock exchange or the integrating EU market provides sufficient access for debtors (the listed companies) and creditors (investors) alike. The authors think that at the comparatively low levels of market integrity, the local market continues to be more accessible for both companies and investors. In other sectors that provide financial services the share of cross-border operations also continues to be low despite the effective regulatory provisions that facilitate such operations. This can be explained by the frictions and practical inconveniences, for instance in case a client from a member state looks for banking, investment or insurance services in another member state, they run into obstacles like scarce information, differences in legislation despite the harmonization in that field, traditions, higher prices of the provided services, the existence of currency risk

for the non-EU member states, and other factors. Decreasing or even removing such obstacles can be expected in the mid term and long run, though the demand and supply for such services on the national market will continue to have the dominant effect. Hence the national capital market with its regulation, supervision and support is important. Basically, foreign investments in local financial instruments are essential for a small capital market, even though amid crises foreign investors are the first to leave the market.

*Third*, we consider the integration of the local stock exchange with more developed foreign stock markets as a correct approach, which has been confirmed by the examples of other stock markets. We assume that it could create higher stability on the local stock market in cases of financial turmoil, though the contagion effect may appear. That higher stability can come by listing and quoting companies on bigger and widely known stock exchanges where access is provided to bigger and stronger companies that meet stricter requirements. However, such a conclusion should be further elaborated on and carefully considered from different viewpoints. The lesson in this case is that the integration of a smaller stock exchange with a bigger one would probably decrease the shocks and counteract the decline in prices in the event of financial crises.

*Fourth*, as we discussed above, the financial safety net offset deposit outflows and bank runs during the crisis, which was most evident in the cases of deposit guarantee. The investor compensation schemes also played a similar role though they did not have such a strong influence. As of the end of 2012 the proposals for changes in both directives continue to be discussed.

The current level of investor compensation is expected to reach 50,000 EUR. The proposed increased level exposes that the

level of investor compensation is lagging behind compared to the deposit guarantee, which is currently 100,000 EUR. It further reveals the accumulated inflation since the drafting of the directive on investor compensation. Simultaneously, it is proposed the minimum level of investor compensation to be removed and a fixed and equal level for all schemes in the EU to be applied. If the proposed amendments to the directive on investor compensation are adopted, the level of compensation should undergo a twofold increase, which means a higher exposure of the scheme in the cases of its enforcement.

It is proposed that co-funding be removed and the provided compensation cover 100% of the client's claim. The aim of the implementation of co-funding (co-insurance) is to prevent the moral hazards which appear when the clients are protected to the full amount of their claim. In that case the client is indifferent to the risk of the investment company and is interested only in the prices of the provided services. This is the reason why providing full coverage in cases of failures could direct clients to investment intermediaries that offer the most profitable but not the best or the most secure products and services. However, the authors believe that potential investors should not suffer from the company's poor management and should not bear the brunt of it. Retail investors could not estimate the risk of the investment company, which applies also to bank clients that fail to assess the risk of the bank in question.

One of the main problems confronted by the investor compensation schemes in countries with failures of investment companies is the underfunding to ensure compensation payments. It is proposed that a minimum fund be set up of 0.5% of the amount of clients' assets, which should be accumulated in advance and made available at any time.

There is a proposal in the directive

on investor compensation schemes to accumulate 10% of their funds in order to provide loans to other EU schemes in cases of shortages as the maturity of those loans is 5 years and the interest rate is equal to the ECB overnight loans. There is a unique new proposal whereby in case of shortage of funds for compensation payments one national scheme can get a loan from the scheme in another member state, that is, the mechanism of lender of last resort to be applied, which is also envisaged in the deposit guarantee schemes. There is also a proposal to offer protection to investors in cases of a third party failure, whether a depository or a custodian, which holds the clients' assets without a failure of the investment intermediary which manages the client's financial instruments. In the new proposal the collective investment schemes are also included in the compensation provided by the schemes when asset management companies fail to return client's assets due to the failure of a third party. It is also envisaged that the deadline for compensation payments be shortened and the information provided to clients be increased. Another interesting proposal is the protection of the clients of companies that practically hold clients' assets, though the companies do not have the necessary authorization to do so.

Currently the idea of the creation of a banking union where the existence of integrated deposit guarantee scheme is envisaged is subject to serious debate. However, the banking union is being established at a slow pace.

### 3. The Financial Crisis and the Currency Board Arrangement

The Currency Board Arrangement (CBA) functioning in Bulgaria was introduced in 1997. The reason for its introduction was the acute though relatively short bank crisis, which jeopardized the country's

financial and political system. The CBA was introduced by amendments to legislation on the central bank whereby two departments were set up – the Issue Department and the Banking Department, each having a separate balance sheet. The Issue Department is in effect the CBA. The assets of this department are entirely held in foreign currency – at the beginning of the CBA they were held in German marks (DEM) and subsequently in euro. The liability side of the balance sheet is the monetary base, where except banknotes, coins and bank reserves, the deposit of the Ministry of Finance (which is called the fiscal reserve) and other liabilities are kept. The balancing item in the balance sheet is the deposit of the Banking Department. Since the introduction of the CBA, significant funds have been accumulated<sup>16</sup> in the Banking Department.

The implementation of the CBA is a fundamental change in the monetary regime. The immediate effect of its introduction was the restoration of confidence in the national currency and in the monetary system, which collapsed due to the hyperinflation prior to the introduction of the CBA.

The authors think that the CBA created a specific economic situation in the country during the crisis, which was due to the procyclical character of those monetary regimes and main macroeconomic indicators are affected. Procyclicality is reviewed in a slightly different way by economic theory and policy. We can assume that a certain indicator moves procyclically when it has a positive correlation with the general economic conditions, that is, when in cases

of economic growth it increases (such indicators are GDP, stock exchange prices, etc.). Respectively, an indicator moves anticyclically when in cases of recession its values increase (e.g. anticyclical is the behaviour of unemployment)<sup>17</sup>.

According to monetary theory, procyclical is a policy (or a mechanism, a regime as the CBA, but also the regime of the exchange rates as well as the monetary unions) that increases the fluctuations in the economy and in the financial markets. A policy that weakens those fluctuations is anticyclical. An example of an anticyclical policy is the successful monetary policy that offsets the cyclical changes in money supply, interest rates and exchange rates, even though theoretically some authors see monetary policy as generally ineffective and destabilizing.

The procyclical developments of the CBA are based on the fixed exchange rate, blocked monetary policy, the state of the balance of payments and the situation in the banking sector. In cases of favourable development in the country with CBA there are capital inflows (foreign investments), given that due to the fixed exchange rates adequate currency reserves are maintained, the currency risk is avoided, the money supply increases (due to an increase in the foreign reserves), the level of the interest rates declines, inflation declines and there is economic growth. Private consumption and investments are encouraged, which contributes to the heating of the economy. On the other hand, in cases of adverse economic conditions and financial crisis the CBA generates procyclical reaction by intensifying the fluctuations – there are

<sup>16</sup> The amount of the deposit of the Banking Department in the Issue Department is 7 704 512 thousand BGN as of 28th of December 2012 (BNB Statistics).

<sup>17</sup> For more information on the procyclical movements of the economic indicators in CBA regimes see, e.g. Avramov, R. Currency Board and Financial Crises – The Case of Bulgaria, BNB, Discussion Papers, June 1999, p. 7 (in Bulgarian); Ganev G., Wyzan M., Bulgaria: Macroeconomic and Political-Economic Implications of Stabilization under a CBA, March 2004; Grimm O., Monetary and Fiscal Policies in Currency Board Systems and Monetary Unions, Heidelberg, January 2007, pp. 12-13; [www.wikipedia.org/wiki/Procyclical](http://www.wikipedia.org/wiki/Procyclical).

capital outflows, increase in the interest rate levels and "crowding out" of private demand, which encourages recession. In other words, even though the implementation of the CBA creates financial (monetary) stability, external shocks are cushioned directly by the real sector, economic agents, interest rates and the credit market. The economic system becomes more vulnerable, which is potentially dangerous.

On the other hand, conventional (discretionary) monetary policy is in effect seen as anticyclical as it can offset (albeit not entirely) the unfavourable fluctuations in the economy.

The Bulgarian experience confirms in general the above statements, by exposing both the advantages and disadvantages of the CBA. The advantages and disadvantages of the CBA are subject to separate research, but with regard to the financial crisis and its consequences and counteraction, the following lessons for the CBA functioning could be drawn:

*First*, at the CBA the balance of the state budget is essential, particularly in cases of financial crises. By definition the state budget should be at a certain surplus, which serves as a reserve for state debt payments in order to maintain the debt burden within reasonable limits without jeopardising the regime of the fixed exchange rate. It is worth noting that the CBA cannot lend to the state (which, however, is typical not only of the CBA but also of the EU, where direct lending from the central bank to the state is prohibited). On the other hand, budget balancing also influences the credibility of economic agents with regard to the state's capacity to ensure internal convertibility of the local currency without devaluation, which may impact the economy and society in many ways.

*Second*, the CBA in Bulgaria during the financial crisis can be estimated from

different perspectives. As the crisis started the fiscal reserve plummeted because part was spent on covering government expenses that could not be funded from other sources in the short run. There was a huge public debate on the issue and the views consolidated that levels of foreign reserves should be kept above the required minimum in order to preserve the stability of the exchange rate and the CBA. The CBA restricts maneuvering, which requires that reserves are available and preserved in cases of discretionary monetary policy or the regime of a floating exchange rate.

*Third*, the CBA should keep foreign reserves above a certain threshold in order to prevent bank panics as well as the exchange of the local currency into the reserve currency. Such a threshold cannot be precisely set because it is related to the liquidity in the banking system and the possibility to withdraw deposits in local currency and transform them into reserve currency denominations. Considering the data in the balance sheet, we can conclude that there is excess coverage of the currency in circulation and of banks' reserves in the BNB with the reserve currency. This is suggested by the fact that the currency reserves of the Bulgarian CBA cover not only the monetary base but also the government deposit and the deposit of the Banking Department.<sup>18</sup> The CBA does not change the fundamental statement, which also applies to a banking system without CBA, that all bank creditors (i.e. the depositors) cannot possibly be fully protected and withdraw their money simultaneously. The conclusion is stronger under the CBA considering that when the depositors withdraw their money, they tend to transform it into the reserve currency at the fixed exchange rate, which increases the risk of a possible bank run.

*Fourth*, we are adamant that 16 years

<sup>18</sup> See: [www.bnb.bg](http://www.bnb.bg)

after its introduction the CBA continues to enjoy stability the local currency enjoys strong confidence. What is more, there is a political consensus for preserving the CBA until the country joins the euro area and a decision is made not to devalue the local currency. Nevertheless, this situation may change in case of harsher economic and political turbulences and the extension of the CBA regime. Another important conclusion is that overall society pays the price for the existing stability through the incurred losses in the field of production and services due to the failures and fall in output in many branches.

### 4. Management of Financial Crises

There is a lot of literature on the issue of crisis management<sup>19</sup>. At the micro level crisis management is a process in which one organization reacts to the occurrence of an unexpected event that threatens the structure of the organization, shareholders, clients, as well as the organization's financial health and reputation.

Generally, crisis appears in a certain organization when its revenues are insufficient to cover costs and the company resorts to its savings, which in cases of lack of lending or capital injections bring the company to the brink of bankruptcy. At the micro level additional funds and expertise could be allocated to counteract crises. Furthermore stress tests, the development of different scenarios, and other measures should be taken as additional planning.

At the macro level such preparation, though it is desirable and useful, could require significant resources (expenses). Crisis management can not be planned thoroughly months or years earlier, as often the resources, including human resources, can be insufficient or some important factors

and circumstances can be ignored. Still it is significant that the strategy is drafted in advance. Crises could not be precisely forecast or avoided and they always bring costs and losses. In broader terms their forecast reveals the state and development of human knowledge (that issue is entirely different in natural sciences, where the forecasts are far more precise).

Financial crisis management is a specific case which is of a special interest and importance amid global crises. The management of a financial crisis of a national or global character is usually reviewed by the state's economic policy and activities to resolve or mitigate the crisis. This paper holds the view that when dealing with financial crisis management it is important that the analyses made by the academics and those made by policymakers are distinguished. The measures for crisis mitigation should be also discussed in the short and in the long run.

Some authors<sup>20</sup> see the financial crisis and its management in the financial sector as a banking crisis. That view is justifiable as the banks are the main financial intermediary with regard to the channels for redirecting money from savers to debtors. This issue is addressed in a number of publications which analyse possible systemic bank crises, including the ones in emerging markets such as the Eastern European countries.

Bulgaria has a substantial experience in this respect if we take into account the banking crisis of 1996-1997, when a number of banks holding about 24% of the total assets in the banking sector went bankrupt<sup>21</sup>. There are a number of studies of Bulgarian researchers that analyze different various aspects of this crisis. Those papers were published when the crisis was over and

<sup>19</sup> Huge bibliography on the issue can be found on: [www.wikipedia.org/wiki/Crisis\\_management](http://www.wikipedia.org/wiki/Crisis_management).

<sup>20</sup> For more information see Stanly Fisher's interpretation on: [www.imf.org/external/np/speeches/2001](http://www.imf.org/external/np/speeches/2001).

<sup>21</sup> BNB Annual Report, 1996 Part 2.



they present researchers' views from the distance of time. There are few analyses of the management of that crisis or the analyses are limited only to the rejection of the measures proposed by the policymakers during the crisis. Those measures were often implemented under the pressure of the circumstances or in the conditions of insufficient or incorrect information.

As a result of the banking crisis the shareholders (both private and state) and creditors alike suffered significant losses (physical persons were compensated entirely for their deposits in nominal terms, but companies lost 50% of their deposits). The lessons from the crisis were serious: the legal framework was changed and capital requirements were increased, more restrictive rules were introduced, supervision was improved and institutional (organizational) reforms were carried out, stringent requirements for bank managers were enforced, as well as other measures.

Following economic theory, despite some slight differences, academicians tend to adhere to the laissez-faire principles, including that state intervention prolongs the crisis, thus increasing the costs for its management. The economists from the Austrian school<sup>22</sup> strongly support such theories. These economists, whose indisputable ideological leader is Friedrich Hayek, assert that the state should not intervene in the economy in times of crises, including the financial crises; crises are resolved on their own and therefore they should not be managed. In his paper published in 2008 Mark Thornton stated that if there were no state intervention, the phase of the corrections in the business cycle that had already started should have finished and

economic recovery should have started<sup>23</sup>. Those authors usually blame the central bank for the crisis because of its policy to provide easily accessible loans to banks. In effect his concerns the popular controversy between the neoclassical and Keynesian doctrine for bottoming out of the crisis. In a paper published by Professor Ivan Angelov in 2009 he protects the Keynesian doctrine by recalling that over the last 100 years there has not been a single case of a country that weathered the crisis without active state intervention. According to Professor Angelov, Bulgaria is among the few countries in the world that pursue liberal instead of Keynesian policy to tackle the crisis. Professor Angelov supports the popular statement in the Keynesian theory that when conducting Keynesian policy cyclical booms and busts are not so strong, and accordingly recessions are shorter and not so deep.<sup>24</sup> On the other hand, policymakers are responsible for what happens in the country and they should react to crises of any kind. The question is how this should happen, which brings us back to economic theory, its prevailing views and to the issues of the knowledge of the economic processes and the lessons from the previous crises.

## 5. Conclusion

The current paper attempts to summarise some of the main lessons from the financial crisis in 2007-2009 and the post-crisis period on the basis of the experience of a small country with a CBA. The currency board regime restores quickly the confidence in the national currency, creates financial discipline, and brings confidence to the markets and

<sup>22</sup> For more information see: "Who to be Blamed for the Crisis? The Response of the Austrian Economic School" (Collection of Papers), issued by Ciela, 2010, p. 230. (translated in Bulgarian)

<sup>23</sup> Ibidem, p. 89.

<sup>24</sup> For more information see: Angelov, I. Global Economic Crisis in Bulgaria, UNWE Yearbook, Sofia, 2009, pp. 4-68.

investors, thus boosting economic stability. Simultaneously, by the introduction of that regime the national economy loses its flexibility and becomes vulnerable to external shocks. Even though economists from the liberal school argue that state intervention in the economy is inevitable amid crises, especially considering the dimensions of the financial crisis in 2007-2009. As of the end of 2012 the detailed assessment of the consequences of the funding provided by the central bank and the state budget has not been possible yet. The effects are expected to appear in the future and most economists share the opinion that state intervention could induce sizable inflation in the mid term.

On the other hand, the lessons from the financial crisis are numerous and they can be viewed at the micro and macro level for the different segments of the financial sector. Regrettably attempts to summarise those lessons would probably lead us to the conclusion that both managers and policymakers tend to forget them. Euphoria as a synonym of greed and fear is a key factor that creates financial bubbles and subsequently brings about their bursts. Nevertheless crises affect every person and company so their study as an expression of human curiosity and understanding provides useful experience to ensure their successful management.

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