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Bad Bank And Other Possible Banks' Rescuing Models – The Case Of Slovenia

Matej Tomec

Tanja Markovic-Hribernik

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TANJA MARKOVIC-HRIBERNIK,Ph.D
Associate Professor,
UNIVERSITY OF MARIBOR, FACULTY OF ECONOMICS AND BUSINESS
e-mail: tanja.markovic@uni-mb.si

MATEJ TOMEC, Ph.D Student
Financial analyst
BANK OF SLOVENIA
e-mail: matej.tomec@bsi.si; matej.tomec@gmail.com

Abstract

During the economic crisis, Slovenia has transformed from one of the most successful new EU Member States into one of the most problematic ones. The reason for this is largely extensive banking problems, that continue to cause uncertainty on financial markets and adversely affect the rating of the country and consequently also the price of borrowing for both the state and private entities. Slovenia has opted to rehabilitate its banking sector by means of a bad bank (DUTB) that, however, only became operational at the end of 2013. The paper seeks to examine whether a bad bank has indeed proven the most appropriate choice out of possible methods of resolving the banking crisis, based on the most recent findings regarding the suitability of various methods of bailing out banking systems in crisis, taking into consideration key elements required for the successful rehabilitation thereof. The paper finds that, taking into consideration all relevant circumstances, the bad bank has proven to be appropriate solution in the Slovenian case but the delay in rehabilitating the banking system has had significant negative macroeconomic impacts as demonstrated by a comparison to other selected countries that had opted to bail out the banking sector before Slovenia. State ownership of systemic banks and political instability have both greatly contributed to slow action taken.

Keywords: *state aid, recapitalization, bad bank, macroeconomic effects, Slovenia*

Classification JEL: *H60, G21, E62*

1. Introduction

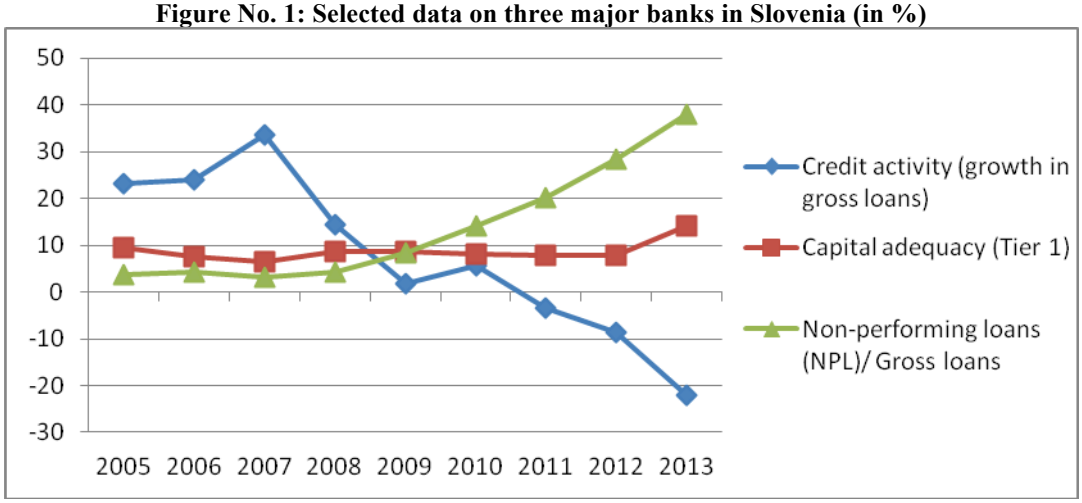
Since the emergence of the global financial and economic crisis of 2008, the European Union (EU) has experienced a serious decline in economic activity. Next to austerity measures and reforms, one of the primary actions taken has been the adoption of aid to banks, especially those of systemic importance. Since the EU economies have proved to be highly dependent on bank financing, the systemic importance of banks has been further exposed, as the issues have direct impact on both the state budgets and the economy in the form of reduced credit activity. Due to capital shortage of the existing owners and no interest shown by potential investors and in circumstances of increasingly stringent regulatory requirements, the states were forced to bail out the banks by themselves. This has led to soaring government deficits, public debt and worsening credit ratings as a consequence.

The described issue has been present in many European states. Some of them have managed to cope with it efficiently, showing positive results supported by multiplier effects of the rescue and rehabilitation of the banking system despite some negative consequences for their public finances. Others, among which Slovenia can be found, have been less successful in this respect. In contrast to the positive expectations of economic growth for the coming years in most EU countries, the outlook for Slovenia is rather pessimistic. Among the main reasons for this situation, the highly indebted economy and the credit crunch following systemic problems in the banking sector after years of sluggishness process of deleveraging can be considered.

In the years before the outbreak of crisis, credit activity (growth of gross loans) used to be extremely high in Slovenia. During the period 2004-2008, the annual level achieved over 23 per cent [15]. Similarly as in some other countries, Slovenian banks have become overexposed to certain sectors - construction, real estate and financial holdings in particular. During the financial crisis, a significant decline in real estate prices has provoked deterioration of business in these sectors and, consequently, banks. Many loans were inadequately and insufficiently secured. Risk management practices have been particularly poor. Too many high-risk customers were granted loans by taking into account the overly optimistic scenarios, making poor level of knowledge and expert judgement evident [26]. In terms of prevention, a greater role should have been played by the Central Bank.

The crisis has revealed all the difficulties to which such behaviour of banks has led. In this situation, a quick and effective rehabilitation of the banking system would be required, but has never happened in reality. As a consequence, the process of rehabilitating the banking system remains sluggish. State ownership in major systemic banks has greatly contributed to this development. On the one hand we see banks in need of additional capital, on the other hand we have an over-indebted economy and few creditworthy customers left, all together in the decreasing of banks' net interest income.

Figure No. 1: Selected data on three major banks in Slovenia (in %)



Source: Bankscope (2014)

At the end of 2012, after five years of crisis and with the volume of non-performing loans in the three largest Slovenian banks (fig. no. 1) reaching around 30% while the Tier 1 capital ratio insisted below 8% (EU average for systemic banks being at above 12%) [7], systemic problem solutions in Slovenia were needed. Much delayed, and of limited volume, the capital injections to the banks turned out to be ineffective, so the problems of bad loans, credit crunch and lack of capital have continued to escalate. On the one hand, capital shortage has affected the appropriate level of impairment of the loan portfolio and provoked a rapidly growing volume of bad loans; on the other hand, credit activity has been hampered thereby, since the banks have been incapable to create sufficient provisions for new loans. During the crisis, bank owners, especially State as the major owner, were confronted to increased requirements related to regulatory capital adequacy, creating additional constraints and pressure.

This is why Slovenia has decided to follow the example of Ireland, Sweden and Norway, among others, and opted for a national bad bank as a solution to rescue the banking system. Since the State is whether direct or indirect, but always the dominant owner of three of the country's largest banks - NLB, NKBM and Abanka Vipa (42% of combined market share by total assets), Slovenia's decision to create a bad bank was largely expected. Some questions might still be raised, such as those concerning the chosen mode of rehabilitation, costs to be paid by taxpayers, macro-economic consequences and other, on which no clear answers have so far been provided. What might help us, however, is to have a closer look at the experience of some other countries. The purpose of this article is to provide a thorough overview of what has so far been written on the issue of state aid to the banks of systemic importance and the consequences of such actions, and also to give an insight on the most common approaches taken by states to rescue banks during periods of crisis. Furthermore, analyses of some macroeconomic impacts of recent approaches by Ireland, Iceland, Spain and Slovenia are presented, followed by the conclusions at the end of the article.

2. State aid to the banks of systemic importance

Difficulties in banking systems, as already experienced by other countries at that time, had to be responded appropriately during the period of crisis. Poor economic conditions within the EU and the related increasing inability of businesses and households to repay loans have weakened balance sheets of banks, forcing them to cover the losses from capital reserves. Capital injections and other forms of support became urgent to restore stability and confidence in the banking system.

At first, banks searched for the required equity from existing owners and potential private investors. To raise their capital banks gathered part of the capital with offering on stock exchange (recapitalization), including convertible bonds and preferential shares. However, times of crisis were marked by modest profitability expectations, general uncertainty in the medium-term and capital shortage of the existing owners, banks were facing a major problem: the extent of capital gained often proved inadequate. In order to maintain stability and confidence and to prevent the worst, states have been forced to support banks by themselves - especially those of great systemic importance.

To support banks, states have used various approaches. States increased guarantees for deposits, provided guarantees for new loans, creation of a bad bank to which bad claims are transferred, and direct financial injections have so far been the most common methods used to rescue banks. Problems of banking sector have also been tackled by writing-off subordinated debts, and by assistance from central banks for better short-term liquidity [38]. States have often combined several methods of support.

State guarantees on deposits have been the most commonly used type of state aid. State guarantees have proved to be successful in reducing liquidity pressures which increase by the outflow of deposits from banks and especially in maintaining the trust [2], [20]. For a successful implementation of state guaranty, the credibility of the country is essential [30]. In this respect, considerable differences can be seen between the peripheral and other countries in the EU. Thus a European guarantee scheme for deposits up to € 100,000 represents an utterly important part of the upcoming Banking Union. This way the confidence shall be restored and the outflow of deposits from the more problematic countries shall be reduced. As a temporary emergency measure, some of the countries (among others USA, Germany, Slovenia, Austria and Ireland) have set higher thresholds or even eliminated the limits of guarantees on deposits [36].

Most of the EU states have opted for supporting their banks by providing direct financial injections and by entering their ownership. To assure an efficient capital increase is of a great importance. This may be the quickest route to an adequate equity level when carried out at the appropriate moment and in the appropriate scope. When the problems are still manageable and the capacities of the government (or other investor) are sufficient, capital increase may thus be the most effective solution to rescue a bank. For taxpayers, however, this kind of aid may prove costly. All too often it happens that the capital gained is only used to cover the bank's losses from the past impairments and write-offs. The operation is often performed to a less than appropriate extent, which is why the need for another recapitalisation can be expected shortly afterwards. This explains why direct capital injections often fail to prevent the credit crunch. With the State acting as the capital injector, the actual outcome is a (partial) nationalisation, which makes it a politically sensitive topic. The process becomes subject to many political interests and objections which is why it is often delayed. One of the negative side effects of this type of action is the moral hazard. Namely, banks' shareholders and investors rarely suffer from any major losses and there is no reason to believe that the poor business practices could not continue in the future.

Many of the EU countries opting for state aid in the form of state guarantees or direct capital injections have faced financial constraints and other negative effects from such actions during the crisis period. From this reason the attention has increasingly become focused on alternative forms of assistance that could prevent such a significant short-term effect on the public finances. One of these alternative solutions is the so-called bad bank used by some countries to combat the crisis. This type of aid has proved to be relatively effective. The bad bank may either operate internally, i.e. within the bank or at the national (aggregate) level. It was due to the scope of difficulties that countries like Spain, Ireland and now Slovenia have opted for this solution to rescue their respective banking sectors.

A national bad bank typically provides opportunity to clean up a larger volume of bad debts in the banking system to improve short-term stability and minimise the impact of the crisis in banking sector on the overall economy. Involving a national bad bank to solve the problems also helps to restore confidence and sends positive signals to financial markets [32]. In this respect, it proves crucial to consider the volume of the claims to be transferred and their price, to choose the right moment to set up the bad bank, to determine its lifetime with cautious professionalism and independence of its management. Through the transfer of their bad assets, bank portfolios become less burdened and so the banks can improve their credit ratings and investors' confidence [35]. When transferring their receivables, banks should be adequately capitalised since losses caused by low transfer prices can be expected. Price of the claims transfer to the bad bank is usually defined following their long-term economic value, which is lower than the book value at which claims are valued by the bank. To avoid an immediate impact on public finances, the State can repay the transferred receivables in securities guaranteed by the government. By transferring bad debts from banks' balance sheets and assuring an adequate recapitalisation and effective restructuring, increased credit activity and better business result for the bank can be achieved. In the past, following the bad bank model to rescue the banking sector has often proved to be effective, but, as shown in Sweden, costly to taxpayers.

With the State getting involved, the risks have been transferred from the banks and the financial system as a whole to the taxpaying public. For the State, it is important to choose a rescue model which while being the most favourable for taxpayers will also effectively solve the problems of the banking sector, restore confidence and increase the credit activity of banks. As high as the costs of rescuing the banks might prove for the taxpayers, it is a general belief that they are still much lower compared to the risk of an uncontrolled collapse of the system in the absence of the state intervention. Since the State is trying to increase government revenues to reduce the public deficit, the negative impact of these costs on public finances becomes tangible for taxpayers when they have to pay additional taxes and risk higher inflation rates [9], [1]. Companies feel the impact through declining profits while households suffer from the reduced purchasing power.

Concerning state aid to the banks, several questions have been raised and controversies highlighted. One of the key issues is whether the state aid can achieve the objective to restore the banking system's stability and credit activity. Once an appropriate level of capital is achieved, banks are able to increase their credit volumes by using the additional capital gained. Meanwhile, the under-capitalised banks can strengthen their capital adequacy by reducing the amount of

crediting. This means that the capital increase does not necessarily lead to increased credit activity, at least not until balance sheets are sufficiently strengthened to increase the capital rates [21], [8]. So it is not just its execution, but also the volume of recapitalisation that is crucial. When too limited in its volume, recapitalisation may fail to reach its main objective and only cover past impairment losses and meet the basic capital needs. So the risk of never achieving the important objective of recapitalisation, which is to enhance the credit activity, remains great.

The next controversy concerns the suitability of state ownership in banks. Namely, poor corporate governance practices leading to poor allocation of capital have appeared frequently in state-owned banks. In the literature, much debate has developed on how large the impact of ownership can be on banking business. Authors tend to agree that foreign-owned banks are better operating than the state-owned or those in the domestic ownership [22], [34]. Even when in foreign ownership, a better performance of the bank is still not granted, since quite many factors are present in this respect. The key factors of a successful operation of a foreign-owned bank are the level of development in the parent bank's home country, the competitiveness of the financial market in the country where the bank operates, cultural differences, and bank's characteristics [12]. The great weakness of state-owned banks is that due to political pressures their capital is often placed to reach social goals rather than following the banks' own interests. Banks in domestic ownership have usually more bad loans, slower revenue growth, lesser productivity and more frequently suffer from banking crises and macroeconomic instability. Even if during the period of credit growth foreign banks are prone to take risks, they usually have the necessary skills and resources to do so. They apply adequate quality management techniques and have access to finances through their own parent banks [3], [23].

When rescuing banks by using state money, strong links between the banking sector and the State are established. This not only applies to the emergence of joined ownership through capital injections, but also to other forms of assistance, such as government guarantees and purchase of securities. Finding an efficient approach to solve the problems of the banking sector is essential for the economy since the lack of investments from the financial sector is mitigated in this way. However, rescuing banks should never be financed with a higher taxation of the non-financial sector, since the incentives to invest would be weakened and the economic growth slowed down. The impact of taxes on the economy depends on the type of tax. Still, any increase or introduction of additional taxes may reduce the economic growth in the short as well as in the long run [27]. This is why States should avoid the practice of increasing taxes to rescue banks. Instead, the money should rather be collected by adopting austerity measures and by using long-term loans. If to boost the economy and investments is the main objective of rescuing the banks, then by introducing additional taxes for this purpose, investments decline and the State remains in a vicious circle. The banking sector's dependence on the State may result in worsening credit ratings for the State and banks, which leads to more expensive loans for both [13].

When speaking of state aid to the banking sector, the attention is mostly focused on its intended impact on public finances. Additional costs for taxpayers are generated by any kind of state aid. This may lead to reducing other public transfers, increasing taxes and/or an increased public debt. The result of the latter are higher expenses for interests and a negative impact on economic growth. Typically for financial crisis, controversies are emerging about the impact of public debt on GDP growth. Economists largely agree with the negative impact of public debt on GDP growth, but the results of studies vary on the level of public debt at which the latter starts showing a negative impact on GDP growth. So e.g. Ceccheti and others [10] have set the threshold at 85% of public debt within BDP, while Baum and others [5] have defined it at 95%. In their study Kumar and Woo [28] estimate that an increase in public debt by 10 percentage points (relative to GDP), averagely results in reducing the growth in real GDP per capita by 0.2 percentage points on an annual basis. Of course, the question is raised whether the State should help the banks despite the described negative impact on GDP growth. In most cases, States do not even have that choice, because much worse consequences would be risked otherwise. Systemic integration of the financial system has a negative influence on both the real economy and the interbank market and, in some cases, even the collapse of a minor bank may have serious consequences. Due to this type of integration not many banks in the EU have collapsed so far, since almost all of them have received aid.

When forced to help banks in difficulties, the State certainly wants to adopt measures that would shorten the duration of the banking crisis and, consequently, the necessary extent of its aid. Past banking crises have shown that the most effective tool for reducing the duration of the banking crisis is fiscal expansion, which may shorten the duration of the banking crisis for one year. Fiscal expansion, of course, means additional borrowing. Therefore, the effect as described only applies to countries that are not over-indebted and have some leeway left for borrowing. In these countries, banking crises usually last for less time than in more indebted countries [6]. Banking crises are associated with substantial and long-lasting increase in public debt. The effect depends on the depth of the crisis. In the medium-term a deeper banking crisis could increase the average debt by 37% of GDP, this effect being lower in less severe crises. Public debt is expected to increase even more in countries that are already deeper in public debt [19].

Because of all these effects on the public finances, more and more thoughts go in the direction of attributing the banks' poor past decisions to their owners and other investors and customers, in particular the holders of subordinated bonds, ordinary bonds and depositories of deposits of over € 100,000 - all these in the order as quoted. For the latter type of aid the term "bail-in" is used, signifying using private capital to rescue banks. Bail-in helps in a fair and efficient way to restructure banks, by writing off and/or converting unsecured debt into equity. Bail-in may mitigate systemic risks, reduce the pressure from de-leverage and avoid the potential loss of value of assets associated with bankruptcies [42]. Convertible bonds (CoCo), converted into capital at the moment when the equity level drops below

a predefined threshold, could serve as an example. Cyprus serves as a well-known example of rescuing banks by using private equity.

3. Examples of different systemic banks' rescuing models during the financial and economic crisis

The models used to solve the banking system during the crisis vary considerably from country to country. The type of aid depends on the size and magnitude of the difficulties of the entire banking system or certain banks, and financial as well as political will and capacities. The vast majority of states have applied state guarantees as aid, and since these works very quickly, allow the short-term confidence to be restored, and provide more time for adopting other measures. What cannot be provided by the state guarantees is the necessary new capital to banks to settle their losses. So the guarantees are primarily designed to restore short-term confidence, prevent a greater outflow of capital from banks and buy some time to introduce more direct forms of aid.

At the beginning of the crisis most states used direct recapitalization for solving the systemic as well as other banks. Among others, the USA, the United Kingdom, France, Spain and Slovenia followed such an approach. The next common type of action is to create a so-called bad bank. This has been applied in Ireland, Spain, Germany and now Slovenia. The next model to solve banks is bail-in, where private investors are forced to participate. The best known examples are Spain and Cyprus. A very rare method of solving the banking system has been applied by Iceland. This country chose to liquidate systemic banks altogether and set up new ones.

Each of the described types of aid has its advantages and disadvantages, and their macroeconomic effects are quite different. Of course, the efficiency of the measures depends largely on the extent of the problems and the overall macroeconomic situation in each country. In many countries several types of aid are adopted at the same time. The outcome of such a simultaneous application might be more favourable compared to what might be achieved by applying one single type of aid that often misses the goal. Further details and analyses of how the selected models help in practice are presented here-below.

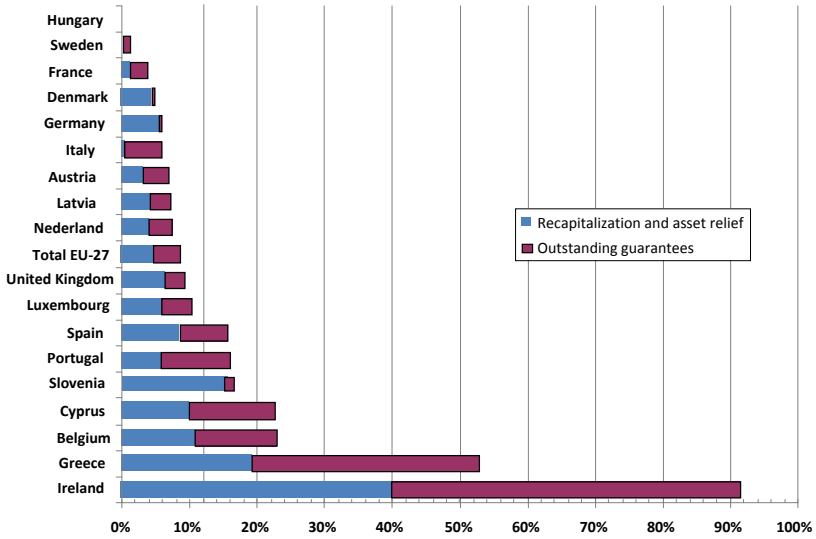
3.1 Direct government recapitalisation

Direct capital increase by State is a model very often used to rescue individual banks in difficulties. Less often, however, this approach is applied to the system as a whole, in which case the capital is directly injected in a number of banks at the same time. This kind of aid can work quickly and prove efficient in the short term, since the bank benefits from the fresh capital in a very short time. Nonetheless, the results of this approach may vary. Noticeable differences are mainly in volume, extent and timing of recapitalisation.

One of the examples of successfully implemented systemic direct bank recapitalisation are the United States, where shortly after the outbreak of the crisis (end of 2008) the TARP (Troubled Asset Relief Program) was introduced and the capital of the largest systemic banks in the country was increased by $245 billion [41]. The measure would restore stability and confidence in the banking system to prevent the collapse of banks (investment banks in particular) and increase their lending activity. Despite the initial political disagreements, the measure was implemented on time and on a sufficient scale. All the major systemic banks were forced to participate through the recapitalisation process in order to secure the confidence on the system level and avoid possible negative consequences that could arise if only certain banks benefited from help. Although the lending activity of banks did not increase immediately, the aid turned out to be effective and it even had a positive impact on public finances. All the aid received, including the interests, was paid back by the banks in the amount of $273.2 billion, or $28 billion more than the amount of aid initially invested [41].

In the EU, this type of aid was in most cases applied to individual systemic banks (although some minor banks were also included during the crisis). By the end of 2012, the EU member states spent a total of €413.2 billion (3.2% of EU GDP) to directly recapitalise their banks [16]. State aid approved to financial institutions in the period 2008-2012 (in % of GDP) can be seen in Fig. no. 2.

Figure No. 2: State aid approved to financial institutions in the period 2008-2012 (in % GDP 2012)*



*For Slovenia the amounts allocated to bank recapitalisation in December 2013 have been included.
Data source: State Aid Scoreboard (2013); Bank of Slovenia (2014)

Among the major banks in the EU, the German Commerzbank (€18.2 billion), the UK Royal Bank of Scotland (45.5 billion pounds) and Lloyds (22.9 billion pounds), Belgian Dexia (€8.4 billion) and KBC (€7 billion), and Dutch ING (€10 billion) received support in the form of direct government recapitalisation [38]. Despite the fact that many banks are still state-owned and have not yet paid back the state aid, the situation is seen as gradually improving. The banks are back to profits and positive returns. Thanks to their fast action and sufficient volume of recapitalisation these state recapitalisation schemes can be considered efficient. All these banks were recapitalised at the very beginning of the crisis, i.e. late 2008 and early 2009. The operations of capital increase were also carried out on a sufficient scale, therefore only few banks needed any follow-up support.

Direct state recapitalisation has been successfully implemented in countries where only a small number of systemic banks were in trouble, so that individual assistance in the form of recapitalisation could work well. Furthermore, these states had sufficient financial and political capacities to support their systemic banks, so these could quickly restore confidence and are now stable in their operation. However, examples of bad practices can also be seen in some countries where states were unable to timely provide the appropriate volumes of capital. Such examples are Spain and Slovenia. Since the outbreak of the crisis, both countries have been facing big problems in their banking sectors, mainly due to the burst of the real-estate bubble and declining prices of the securities to which banks were highly exposed at that moment. Both countries had long been hesitating with capital injections and once introduced, they were performed on insufficient scale and volumes, not allowing an adequate rehabilitation of banks. Using capital injections only to cover losses incurred, the banks were unable to restart their crediting activities. The deterioration of the banks' operations and the inefficiency of capital increases have further been worsened by the gloomy economic situation in both countries. Due to the initial underestimation of the problems in the banking system and a slow and ineffective rehabilitation, the final costs for the taxpayers are expected to be high in both countries.

Spain kept waiting until 2012 to introduce the first important steps. In that year the State intervened on a larger scale and recapitalised some of the most troubled banks (Bankia, Catalunya Banc, and Nova Caixa Galicia, among others). As the borrowing costs on the financial markets were too expensive and systemic magnitude of the problems in the banking sector immense, Spain requested support from the EU and at the same time set up a bad bank (SAREB). Private owners were also involved in the rehabilitation and restructuring of the banking system (bail-in) [26]. Similarly in Slovenia, where the State failed in allocating a sufficient volume of capital to recapitalise the largest systemic banks, so these remained unable to properly rehabilitate their portfolios. Given the magnitude of the problems in Slovenia, systemic banks shall now be rescued by both the bad bank (DUTB) and simultaneous recapitalisation. No external help has so far been needed by Slovenia.

3.2 Bad Bank

As an approach to solve the banking sector in difficulties, setting up an aggregate bad bank is typical for countries confronted with a deep banking crisis of systemic dimensions during the period of financial and economic crisis. Though countries like Ireland, Spain and Slovenia were initially trying to solve the difficulties through recapitalisation, all of them were later forced to create a bad bank.

Following the collapse of the financial market in 2008, Ireland faced large losses in the banking sector largely exposed to overpriced real estate, which in times of crisis lost a significant part of its value (approx. 50%). The Government has taken several steps to mitigate the crisis. State guarantees were issued for six of the largest banks for

their obligations in the amount of €375 billion (240% of GDP). The State also recapitalise many banks and set up a bad bank (NAMA) in 2009. NAMA later took over the mortgage loans at a nominal value of €72.3 billion. Discount in the transfer was 58% in average, meaning €30,5 billion (19% of GDP) was paid for transferred receivables [33]. Suffering from capital shortage following the heavily discounted transfer rates, banks were in urgent need for recapitalisation. Ireland had to ask for European aid amounting to € 85 billion, of which € 35 billion were earmarked for the rehabilitation of the banking system.

In response to the deepening banking crisis, Spain also set up a bad bank (SAREB) in August 2012. Just like Ireland, Spain faced major problems of the banking system mainly due to the sharp decline in real estate prices. At the beginning, both countries nationalised their troubled banks, but were both later forced to set up a bad bank in addition. Due to the extent of the problems in the banking system, Spain also applied for European assistance amounting to €100 billion in 2012 of which €41.3 billion have been spent for the rehabilitation of the banking system. SAREB is a bad bank in private-public property (55% vs. 45%). SAREB's life expectancy is 15 years. Like in Ireland, no quick sales of receivables acquired are expected, since poor economic conditions are persisting and, consequently, asset prices remain low. SAREB has acquired €50 billion in assets (mainly real estate) from nine (partially) nationalised banks. Average transfer discount amounted to 60.75% of book value [18].

Slovenia kept waiting until the end of 2012 to create a bad bank, but even so, further complications prevented its operation until the end of 2013. Before the bad bank could get operational, an external examination of troubled banks' portfolios was required (Asset Quality Review), through which an amount of capital of €4,778 billion was estimated as necessary. The three country's largest banks received € 2.77 billion in cash and government securities at the end of 2013. First recapitalised and purchased by the State, further €3,320 million assets (gross value) were transferred to the bad bank (DUTB) in early 2014, of which two biggest banks received €1,012 million in DUTB bonds (net value). The bad bank was further provided capital in the amount of €200 million by the State [4]. Following €1,174 million (3,3% of GDP) the State has injected into banks in five years of financial crisis till the end of 2013, Slovenia has only this time efficiently restored systemic banks by injecting €3.8 billion (10.7% of GDP). The State has also recapitalised two minor banks (in a controlled liquidation) at the amount of €445 million. The State will also be forced to help other minor banks lacking capacities to obtain the required amount of capital. In this respect an amount between €500-600 million is forecast.

During the crisis the bad bank model has even been followed by some countries that had never faced systemic problems in the banking sector. Despite its better economic situation and lesser problems in the banking system, Germany has decided to involve a national bad bank to solve the issues. In contrast to the aforementioned cases, the German option has been based on voluntary participation [24]. A bad bank has also been founded in the United Kingdom. It included two of the previously nationalised banks. Some of the banks have decided to create so-called internal bad banks by themselves. Here, bad assets are separated from the bank's portfolio and transferred on a separate legal entity.

3.3 Rescue by applying private capital (Bail-in)

The concept of bank settlement by using private capital has been at the forefront since 2013, when both Spain and Cyprus decided to follow this model of rescuing, the latter not on a voluntary basis. From a political aspect this is an extremely unpopular measure, carried out by the two countries under the pressure from creditors (providing external support), i.e. the European Commission (EC), European Central Bank (ECB) and International Monetary Fund (IMF). In Spain, the owners and holders of subordinated bonds of the troubled banks (i.e. Bankia, Catalunya Banc, Banco Gallego) have contributed their share. Write-offs and the so-called haircut of the subordinated debt holders amounted to 61% in these banks, depending on the individual capital needs [39].

In Cyprus, rescuing the banks has also involved holders of ordinary bonds and holders of (uninsured) deposits of over € 100,000. So in addition to the State's intervention, banks have been solved to a large extent by private capital. Next to the commitment to undertake the necessary reforms, this was also one of the conditions set by the European Commission, the ECB and the IMF for financial support of €10 billion in return.

Being 8 times higher than the national GDP, Cypriot banking system was special in its size. In this sense, a controlled liquidation of Laiki, the country's second-largest bank (Cyprus Popular Bank) was decided, while the largest one, the Bank of Cyprus, was to be restructured. Laiki Bank's bad loans were transferred to the bad bank together with its uninsured deposits. In addition to the State's contribution, capital was contributed by shareholders, bondholders and holders of uninsured deposits. Once the losses (including insured deposits) were settled, the remaining capital was transferred to the Bank of Cyprus. In turn, the Bank of Cyprus was also strongly restructured; its unsecured deposits and bonds were converted into capital. Between the outbreak of the crisis in Cyprus in early 2013 and the end of 2015, capital deficit of the banks' balance sheets is forecast to amount to €6 billion if the baseline scenario is followed. In the worst case scenario, a capital deficit of €8.9 billion is planned [29].

In Slovenia the owners of subordinated bonds will also be involved in the rehabilitation of the banking system, presumably in the amount of € 441 million, concerning the country's three largest banks [4]. Holders of subordinated debt will even participate in the rehabilitation of some minor banks, which especially applies to the two banks that are currently in the process of orderly liquidation.

Rescuing banks by using private capital may become an often used concept in the future. This is also the way in which the upcoming EU banking union will act. Thus, what we may expect an increasing participation of private investors, especially owners of banks, holders of subordinated bonds and possibly holders of deposits above €100,000, as it happened in Cyprus. This shall reduce the burden on taxpayers for what concerns state aid and all the associated negative consequences.

3.4 Liquidation of Banks

Quite a radical approach to rescue the troubled banking system was chosen by Iceland. Before the outbreak of the crisis, an average real growth of 6% was recorded in this country. In parallel, the banking sector grew to a level as high as 9.8 times the national GDP before the crisis. Its expansion was accompanied by a large increase in prices of both stocks and real estate on which the insurance of bank loans were based. Thorgeirsson and van den Noord [40] highlighted four key issues that caused difficulties in the Icelandic banking sector: an over-internationalised banking sector; high indebtedness of the private sector; the share of foreign speculative investment was too large; and the national Central Bank's capacity to effectively act as a lender of last resort was largely insufficient.

As with most of the fast-growing banks, growth of credit activity achieved by Icelandic systemic banks used to be largely based on borrowing in the interbank markets. After the occurrence of the crisis, access to interbank funding became very limited and banks could no longer finance themselves. All this led to high mistrust and instability in the banking system. A large outflow of deposits from banks followed and state intervention became necessary.

Initial efforts were made to rescue the banking system by nationalising the banks. However, the magnitude of the problems in the banking system turned out to be too high and the financial capacities of the State insufficient to intervene effectively. This is why the government decided to liquidate the three largest Icelandic banks. Due to the considerable difficulties and the size of the banking sector in relation to the size of the country, Iceland had in fact no other choice than to liquidate its largest banks once the interbank market got frozen. At the next stage, new banks were set up by the State to take over the domestic activities from the liquidated banks. New banks were strongly capitalised and largely (by more than 90%) financed by deposits. The majority of minor banks were restructured as well. During the crisis, all deposits in Iceland were guaranteed by the government [14].

Incapable to finance the liquidation by itself the State turned to the IMF - as a non-member of the EU, Iceland was not justified to receive the European aid - for help in the amount of €7 billion (70% of GDP). The Icelanders decided to only save the domestic banking activities. This is why the state guarantee was only introduced for deposits at banks which were operating in Iceland and did not concern their international branches. This led to an international conflict in which the Netherlands and the United Kingdom (where the vast majority of branches of Icelandic banks were located) required reimbursement of bank deposits to their residents. Due to the specific situation in Iceland the chosen way of solving should be considered optimal. Any other method such as recapitalisation or a bad bank would probably be more expensive [40].

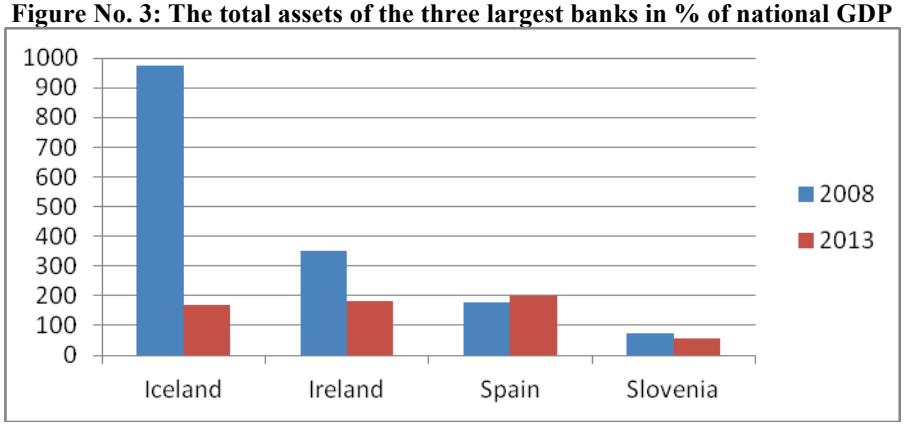
4. The macroeconomic effects of the different solving methods

Whatever the solving method, an impact on public finances and other macroeconomic and microeconomic effects has been evident for all of them. Effects have been visible in economic activity, including unemployment rates, lending activity and the impact on public finances.

The effects of different methods of state aid can best be seen in the examples of Ireland, Slovenia, Iceland and Spain. All these countries were confronted with its banking sector in immense difficulties which is why an exit from the crisis could only be based on a rehabilitation of the banking system. Success or failure of a rapid rehabilitation of the banking sector by which macroeconomic outcomes are strongly affected was one of the key factors of these countries. While Cyprus has also been faced with significant problems in the banking sector, analysing this country in the same context is not possible. Here, the banking problems have only appeared in 2013 and the consequences of the crisis are not yet clear at the moment.

The extent of the problems is also reflected in the systemic banks' total balance sheet tendency in relation to the national GDP (see fig. no. 3). This is particularly noticeable in the cases of Iceland, where, following the liquidation of the major banks the State set up new ones, each much smaller in its total assets, and of Ireland, where the rehabilitation of the banking system started immediately after the outbreak of the crisis. A rather unpronounced decrease in total assets was seen in Slovenia, which was a result of both inactivity in the field of rehabilitation of the banking system and the relatively small size of the sector compared to GDP. In Spain, surprisingly, the total assets even recorded some growth. This phenomenon can be explained by relatively sound operation of the two largest Spanish banks, Banco Santander and BBVA, both of which have managed to continue to achieve positive profits and have been recording growth throughout the crisis.

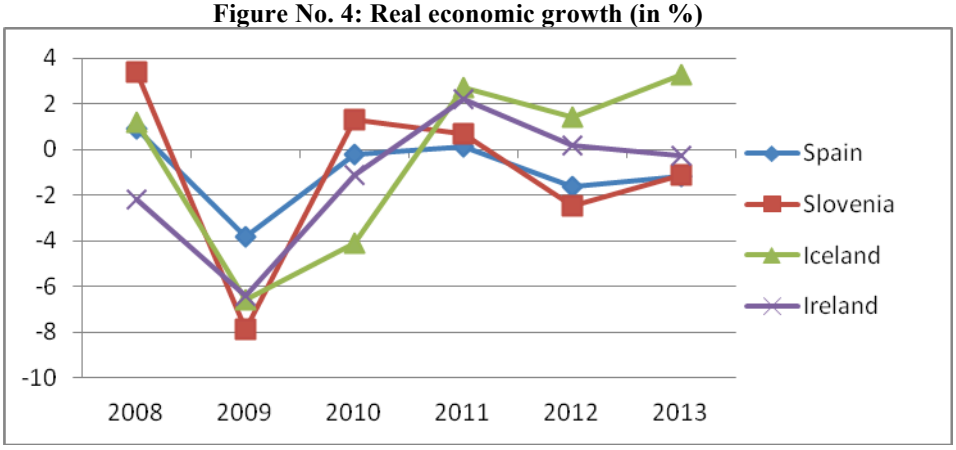
Figure No. 3: The total assets of the three largest banks in % of national GDP



Source: IMF Data and Statistics (2014); Bankscope (2014)

How quickly the banking system will be rehabilitated can also be inferred based on economic growth rates and unemployment rates. All the countries were strongly affected by the outbreak of crisis in 2009 followed by a sharp decline in economic growth. Still, there are significant differences in how each of these countries managed to exit the crisis and regain the GDP growth (fig. no. 4). Since 2011, Iceland and Ireland have been achieving positive real growth in GDP in spite of the magnitude of their problems in the banking sector. This can be attributed to the rapid and vigorous rehabilitation of the banking system immediately after beginning of the crisis. In contrast, Slovenia and Spain are still deep in recession after five years of crisis and no less suffering from extensive problems in their banking systems.

Figure No. 4: Real economic growth (in %)

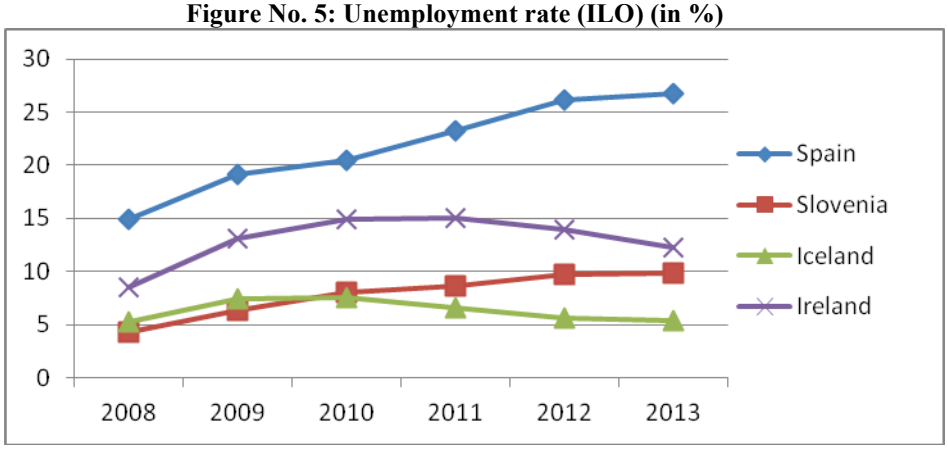


Source: Eurostat (2014)

Despite their successful recovery from the crisis and the restoration of a positive real economic growth, the consequences of the crisis remain reflected in the loss of potentially attainable GDP. This issue is particularly high in Ireland and Iceland. In Ireland, due to the banking problems, the comparative loss (since the outbreak of the crisis) is estimated at 105% of potentially achievable GDP, while in Iceland, where the recovery went faster, it is estimated at 43% of the country's potential GDP. The comparative loss in Slovenia is similar to that in Spain and estimated at 38% of the potential GDP in the former and 38.7% in the latter country [31]. As said before, both countries are still in recession, so the comparative loss may still increase.

As expected, unemployment rate has worsened since the onset of the crisis in all the countries compared. Similar to the movement of real economic growth, an improvement in the employment rate can be observed in Iceland and Ireland, that is, in both countries where rehabilitation of the banking system started at the very outbreak of the crisis (fig. no. 5). In Slovenia and Spain, a further worsening of unemployment may be expected due to reduced lending activities of their non-rehabilitated banking sectors. Unemployment rates will not only be affected by the rehabilitation of the banking system but also by the implementation of a reformed labour legislation. Soon after receiving financial support, Ireland and Spain have implemented reforms in this area, following the pressure from the European Commission (EC). Certain changes in labour legislation have also been implemented in Slovenia. As estimated by the EC and the IMF, these are insufficient, so additional measures will be required.

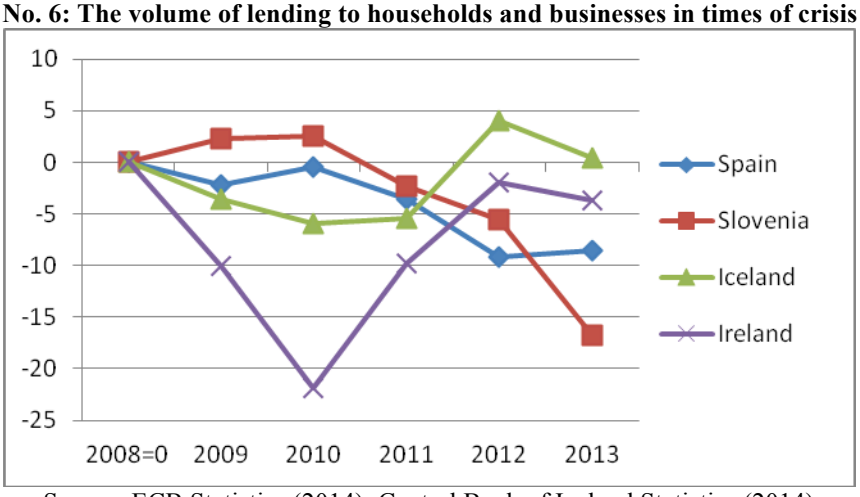
Figure No. 5: Unemployment rate (ILO) (in %)



Source: Eurostat (2014)

One of the key objectives of the assistance to banks is to increase their lending activity and thus boost the economy. As shown by Figure no. 6, credit activity has decreased in all the countries during the crisis. In Slovenia the credit rate remained positive in the early years of the crisis, but a sharp decline soon followed. This is due to the fact that the banking crisis hit Slovenia at a later stage, but also because of the slow process of deleveraging which has gained some momentum once the rehabilitation started. A further decline in lending activity in Slovenia is expected to continue until the final rehabilitation of the banking system and the adoption of measures to reduce the indebtedness of the economy. The data in Figure no. 6 refer to the period after 2008, i.e. after the liquidation of the largest banks in Iceland. The lending activity in Iceland continued to decline until 2011. Since that year a positive growth in credit activity can be detected. A more drastic contraction in the lending activity was recorded in Spain, and especially in Ireland, as clearly shown in Figure no. 6.

Figure No. 6: The volume of lending to households and businesses in times of crisis (in %)

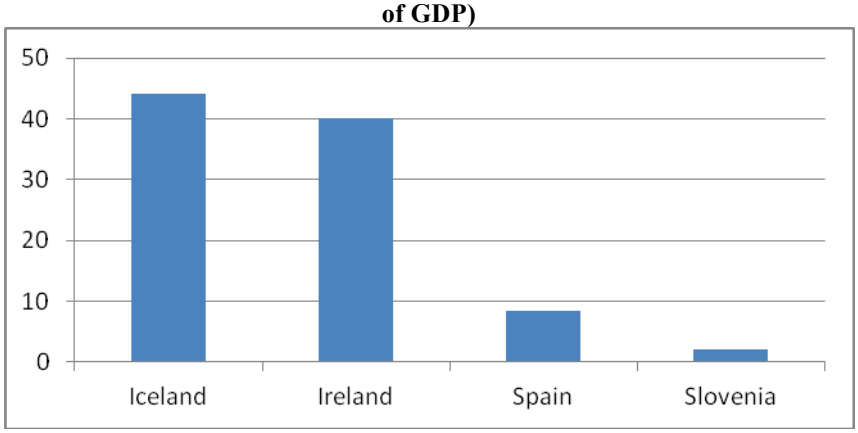


Source: ECB Statistics (2014); Central Bank of Iceland Statistics (2014)

As much as the speed of action and the amount of aid to banks might be essential for raising the credit activities, the rehabilitation of the banking system itself is only the first step that must be accompanied by other major measures and reforms. The economic situation in other countries may also be of major importance for the export-oriented countries such as Slovenia and Ireland. It is evident, however, that a lesser decline in credit activity has been seen in Iceland and Ireland than in Spain and Slovenia, which each has only just started the rehabilitation.

The impact of government support to the banking system on public finance differs between countries (fig. no. 7). It stands out in both countries that have already healed their banks. In Spain and Slovenia, however, the real effect will be visible in the future.

Figure No. 7: The fiscal cost of recapitalizations and other direct assistance (bad bank) until the end of 2012 (% of GDP)



Source: European Commission (2013); Laeven and Valencia (2013)

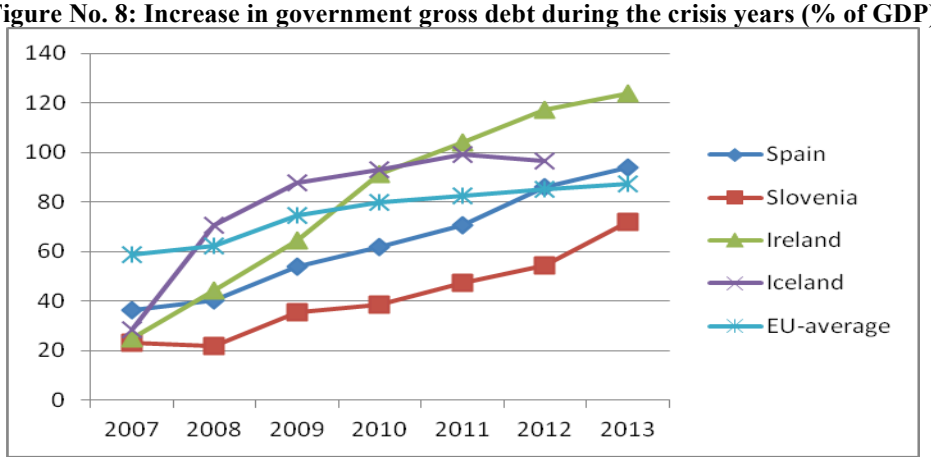
While in the case of Ireland and Iceland the costs of rehabilitation of the banking system are known, this is not true for Slovenia and Spain. Even before obtaining help from the EU, Spain had already set up a €99 billion fund (FROB) to help banks. By the end of 2012, about 5.7% of the country's GDP were allocated for the needs of recapitalizations of banks, and additional 2.7% of GDP for buying assets or bad debts from banks, so 8.4% of GDP in total [16].

From the beginning of the crisis until the first half of 2013, €1.174 billion (3.3% of GDP) were allocated for the recapitalisation of systemic banks in Slovenia. So by the end of 2013, a serious rehabilitation of the banking system had not even yet begun. At the end of 2013 and beginning of 2014 (when recapitalisation and the first transfers of receivables to the bad bank were performed), the necessary capital increases and capital needs of the bad bank were at €3,8 billion for systemic banks and €445 million for two minor banks. In total, fiscal costs for the rehabilitation of Slovenian systemic banks accounted for €5,4 billion (15,2% of GDP) by now. The costs of rehabilitation of the entire banking system may reach above €6 billion (16.8% of GDP) at the end of the crisis.

The final costs of remedying their banking systems are not yet possible to predict, since the States expect a part of the capital to be paid back in the form of proceeds of possible sales of nationalised banks and the possibly successful bad bank operation (sale of seized assets). The bad bank's lifetime is in most cases expected to go beyond 10 years, therefore no rapid payback of the rehabilitation costs should be expected by taxpayers. The sale of nationalised banks is expected to be carried out at an earlier stage, depending on economic conditions, the proposed purchase price and political will to withdraw from ownership of these banks. It is when the sales prices (including returns from ownership) and the costs of loans are known that the overall cost of rehabilitation during the crisis can finally be stated.

Increased fiscal costs have led to an increase in public debt in all countries. For the needs of the rehabilitation of the banking system, States were forced to borrow money, increasing their public debt thereby. In addition, its level was largely influenced by borrowings to cover the gap between revenues and expenditures, already existing and accelerated by the crisis. As Figure no. 8 shows, a relatively low level of public debt can be detected at the outbreak of the crisis in all the countries compared, but then a rapid increase followed, far beyond the EU-average, during the crisis years. At the end of 2012, Slovenia was the only country showing a relatively modest public debt (below the Maastricht criteria), but it was also the only country to start the rehabilitation of the banking system as late as in 2013. So its public debt was increasing mainly due to a very high budget deficit in the years of crisis. At the end of 2013, the Slovenian public debt is therefore significantly higher than in 2012.

Figure No. 8: Increase in government gross debt during the crisis years (% of GDP)



Source: Eurostat (2014)

The significant increase in public debt and the lack of necessary reforms regarding the adverse conditions led to downgrading of credit ratings and more expensive borrowing by States and private entities as a consequence. So the States should focus their economic policies on a rapid and effective rehabilitation of their banking systems and the simultaneous consolidation of public finances, thus restoring confidence of financial markets and consequently lower the cost of the market-available loans.

5. Conclusions

Which type of bank rescue is to be considered as optimal for a country? The decision is primarily dependent on the dimensions of the difficulties in the banking system. If the problems are faced by a number of banks that are small in terms of total assets (relative to the entire banking system), the simplest and the most efficient solution for a country is recapitalisation by the State. The Bank thus quickly obtains the necessary capital, impairs the problematic part of its portfolio and may continue to operate normally. Given its modest interference in the banking market, and the usually small amount of capital needed for a particular bank, this method may also prove politically less controversial and more easily accessible. By recapitalising it is also possible to solve systemic problems in the banking system. A good example of such approach is the USA. Despite the good practice shown by the USA (achieving a plus of $28 billion compared to the amount of the state aid [41]) it is difficult to apply the same method in the EU, where banking systems are usually much larger when compared to their national GDPs. The United States is also financially a very strong country allowed to borrow cheap and make an easy way to perform an efficient capital increase.

For an EU country facing problems of major dimensions it is more appropriate to involve a bad bank to solve systemic problems. This is especially true for countries that are not financially able to provide the appropriate level of capital within a reasonable time. Namely, involving a bad bank means postponing the payments in the future and avoiding an immediate impact on public finances. However, the transfer must be immediately followed by an appropriate recapitalisation of banks. Essential for an effective performance of the bad bank are its early establishing, an appropriate volume of claims transferred, price of these claims, lifetime of the bad bank and professionalism and independence of its management structures. Past examples allow us to learn to focus on such goals. If these are well determined, the negative impact on public finances can be significantly limited.

The case of liquidation of banks and the creation of new ones in Iceland is a very specific example only applicable in specific countries, similar to Iceland in size and magnitude of the banking system. Such cases are Cyprus and Luxembourg. If used in larger countries the consequences might get unpredictable and could provoke wider negative effects on the international level. However, participation of private bank investors (bail-in) is expected to be more frequently used in the future. In Spain, Slovenia and, especially, Cyprus, this model of rescuing has already been followed. It turned out to be rather effective. This kind of approach is suitable when used in addition to other types of aid, since the taxpayers' burden can be significantly reduced in this way.

Taking into account the different models of bank rescuing and different practices in times of economic and financial crisis, it may be concluded that the model of rehabilitation of the banking system with the bad bank is the proper solution for Slovenia. Financing the bad bank is postponed into the future, when borrowing conditions might be more favourable. The State will still have to recapitalise the banks adequately, but to a lesser extent. An important argument in favour of the bad bank model is receivable management. Slovenian banks are commercially oriented and have no adequate skills in company management and restructuring, which is reflected in the continual submissions of bankruptcies by companies in which the bank, following the company's non-payment of obligations, has become the dominant owner. With the recapitalization alone, these receivables would remain within the bank and the bank, which instead of its core business, should then concentrate on the processes of corporate restructuring, which from now on shall be the task of the bad bank. In addition, the restructuring of enterprises often requires substantial financial support from banks, but these are, at the moment equity incompetent.

In the rehabilitation of the banking system, two of the key issues are costs that are to be settled by taxpayers and the macroeconomic effects of rehabilitation. Speaking about the costs of implementation of the bad bank and recapitalisation of banking sector, the question arises whether the State should borrow money in the capital markets, or turn to ESM (European Stability Mechanism) for support at lower interest rates. The example of Ireland and Spain shows that the latter can be the adequate solution. Following this approach, Slovenia could borrow money at a four percentage points lower interest rate, which in the context of multi-billion sums required to bail out the banks would mean tens of millions in savings. On the other hand, however, any aid is conditioned and therefore limiting the country's sovereignty of choice of measures for overcoming the crisis.

It is all but easy to make a direct comparison between the macroeconomic implications of different models or approaches to resolve banking difficulties, since situations and problems per country vary heavily. Compared with other countries, fiscal costs of bank rehabilitation by the end of 2012 in Slovenia were still at a rather low level of 2.1% of GDP (meanwhile Spain: 8.4% of GDP, Ireland: 40% of GDP) [16]). However, the important detail is that other countries had already started the rehabilitation of their banking systems before 2013. In Slovenia, the restoration of systemic banks seriously started as late as five years after the outbreak of the crisis, by which the fiscal costs have increased to 15.2% of GDP [4]. The time taken by Slovenia to overcome hesitations and inadequate attempts to rescue

the banking system is unfortunately lost and leaving tangible effects in deteriorating economic indicators. In any way, the rehabilitation of banks by following the bad bank model and the corresponding simultaneous recapitalisation is probably the only sensible solution in the given circumstances. The bad bank, as practised in Slovenia, takes into account the majority of past examples of good practice. Nevertheless, what in conjunction with the bad bank is decisive at the end of the day are its implementation and management, which will be tested at the moment of transfer of bad debts, and then through the bad bank's subsequent operation.

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