

**University Doctoral (PhD) Dissertation Theses**

**FINANCIAL CRISIS MANAGEMENT, BANK REHABILITATION  
AND SETTLEMENT OF DISTRESSED LOANS:  
HUNGARIAN AND SLOVENIAN PRACTICE IN REGIONAL AND  
EUROPEAN CONTEXT**

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Debrecen, 2015

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## **1. PRELIMINARIES AND OBJECTIVES OF THE PHD DISSERTATION**

The global economic crisis began in 2007 – and still being effective considering a number of its elements – broke in on both unprepared market players and regulating authorities unpredictably. Traditional tools have proven to be insufficient to resolve the crisis.

The new system of instruments and institutions designed using innovational solutions, has developed consistently answering specificities of a sequence of national crises emerging one after the other, with some time gap, to compose a fairly coherent system for today. My study

- Offers an insight into the history of the development of monetary instruments and institutional system of bank capital regulation, crisis management of financial institutions, in interaction with one another and adapted to specific characteristics of central developed countries and those on the peripheries of Europe.
- Provides a critical analysis of the experience of financial crisis management and partial introduction of new EU policies and regulations in the “test laboratory” of Slovenia.
- Reveals personal practical experience and analyses based proposals (partially implemented or at the stage of implementation) for the correction of operational shortcomings of bank rehabilitation and distressed asset management system of Slovenia, and for the establishment of missing elements and institutions.
- Draws conclusions concerning the importance of human relations of crisis management, concerning regulations already have been adopted by the Hungarian legal environment and concerning the institutional system that is in the phase of development.

Characteristics of the a country-specific system of instruments largely determine effectiveness of crisis management, play primary role in prevention and effect prospects of sustainable economic development significantly. Importance and relevance of the subject matter is raised by this direct correlation.

Primarily, my personal motivation to complete my research and prepare this dissertation lies in my intent to share my own practical experience of decades in bank crisis management and specific resolution opportunities of bank crisis management placed into a theoretical context with a broader professional audience, decision makers, lecturers and students in higher education. A new economic region of successful development of the European Union may evolve again in Central Europe and in the Baltic States after the crisis, still I must declare that for some countries, among them for Slovenia and Hungary, it is rather a kind of prospect yet, realization of which requires the introduction of a series of consistent market-friendly reforms. This dissertation, my proposals herein are intended for serving this objective concerning a vital segment: bank rehabilitation, management of distressed loans, and reorganization of companies struggling with financial difficulties.

## 2. MATERIAL AND METHOD

Theoretic background of the research is based on the process of extensive professional literature; practical background builds on my personal work experience of 4 years as a researcher and consultant, and 26 years in banking/bank management. My working methodology is similar to the regular approach I use for my managerial, expert and particularly for my strategy forming activities: start from a theoretical basis, the global picture, and approach analyses, proposals and implementation programmes related to specific hypotheses/issues/problems gradually.

Section 4.1-4.2 provide an analysis of the development history of global and regional systems of crisis-prevention, their crisis management instruments and synergically developing elements, combining critical analysis of professional literature with practical experience of my former activities in domestic scientific and professional public life, presentations at international and domestic conferences, opinion forming and recommendation activity in working groups of the Institute of International Finance, particularly related to bank supervision and capital regulation, and last but not least crisis prevention work in Hungary (1990-93 and 2008-2012), Romania (2009/2010), bank crisis management in Slovenia since 2013, crisis prevention in Bulgaria (2008-12) and Ukraine (2013-14).

Performance of the analyses and development of related proposals demonstrated in section 4.3 essentially build on experience I have gained through the reorganization of Probanka in Slovenia since 2013, and in the board of directors of the national distressed asset management company (DUTB) since 2015, and most recently as the CEO of DUTB, through the results of (informal) consultancy I have provided for the president of the central bank, and calculations of data of primary data sources performed using my dedicated methodology.

Section 4.4 Presents results of the two series of research interviews performed with the assistance of my mentoree and student in order to reveal managerial aspects of crisis management, through comparable predefined questions asked from senior bank managers tried by the crisis. 26 interviews with senior bank managers were conducted in Hungary in the July 2012 – January 2013 period, and then 15 similar in-depth

interviews with senior bank managers were performed in Slovenia in the summer of 2015 about the crisis and the management of the situation emerged. Quantitative analysis of the questionnaires related to the 2008 crisis, and filled in by 18 Slovenian and 19 Hungarian bank leaders was performed using the SpSS program, complementary „soft” information derived from the in-depth interviews was added for an even more substantive content.

### ***Constraints of scope and methodology***

Thematic design of a study and selection of methodologies applied extend over the definition of main directions of the research, it is vital alike to specify limits, which the research cannot exceed within given content and length barriers, which, on the other hand, visualize main directions of feasible further analyses.

- My study applies a basically institutional-organizational approach, and analyses experience and develop proposals for a location specific development of crisis management system of institutions and practices from the perspective of an active banker, inevitably looking at the processes in a somewhat subjective manner, as I have been involved in them personally.
- As financial crisis management is still under way in the majority of the analysed countries, statistical data sequences of an eligible time scale and retrospective view are missing, hypotheses of the study are demonstrated by quantitative parameters and trends, and practical experience synthesised as “good practice”. I am planning to complete a research in the future, beyond the frameworks of this study based on specifically completed series of data suitable for deeper analysis and robust modelling-statistical methods to provide further evidence in particular concerning the frameworks of appropriate timing and context of crisis management, reduction of the mass of emerging distressed loan, depth of company restructuring, and the restart of lending.
- Though I am engaged in the regulation framework related to the financial context of crisis management, as a reflecting/framing financial-economic processes, so I include specific legislative references, I take on detailed review of regulations related indirectly to the financial sphere – for example related to budgetary management – only in case these are linked directly to the bank sphere (for example taxation of banks). I am not engaged deeper in the contexts

of monetary and budgetary policy; moreover I do not study the development of monetary, capital and liquidity regulation globally, but the primary aspect of crisis management.

- I have elaborated and I review relevant professional literature based on this practical concept and institutional approach, and in the context of a narrow sense of the subject and include references accordingly.
- I do not analyse in detail practices applied by countries other than solutions of Hungary and Slovenia, but I identify key milestones of the development of the crisis management practice, which have played a definitive role in the development of today's comprehensive crisis management system.
- Demonstration and assessment of the role of human resources has a highly definitive role in this dissertation, especially in parts of sections analysing specific processes and drafting proposals. It reflects my awareness and intention: in particular my late mentor, László Antal had taught me that without the understanding and observance of human motivations and interests even absolutely logical and rational models and proposals built on sound professional bases may prove to be inoperable, and it is demonstrated widely by my managerial experience as well. Sample of the questionnaire survey of limited number of elements, determined by the defined target group (active senior bank managers) and their willingness to respond (amazingly high in the Slovenian group) determines and limits robust nature of pure statistical results, which complemented by rich qualitative information of the in-depth interviews, objectively support conclusions I have drawn from everyday routine as well. However, in the future, I am planning to undertake further research beyond the limits of this present dissertation to support scientifically my theories, where bank human politics is particularly important up to the extent it contributes to a more effective operation for the economy and the society.

### 3. RESULTS

Assumptions to be evidenced by this dissertation:

- The system of crisis management instruments and institutions is effective if it – based on relevant experience – adapts to the characteristics of the given economy.
- Concerning business approach of the years preceding the crisis, crisis and change management, behaviour of the senior management and proper human resource management has an essential impact on bank adaptability, as human resources play a well above-average role in this sector.

My initial hypotheses established on specific Slovenian and (partially) Hungarian features at the beginning of the research:

*Hypothesis 1:* Regarding a bank – either viable or to be withdrawn – in a crisis situation resolution/reorganisation is likely to prove more favourable than liquidation concerning its direct financial impact as well, and the prevention of contagion effect generates obvious social benefit. However, cost burden of an eventual liquidation instituted after the commencement of reorganisation is much higher, because of extensive state commitment.

*Demonstration:* Reorganisation experience of Probanka unequivocally demonstrate the accuracy of the hypothesis (which is the initial hypothesis of the approved restructuring plan): estimated cost of the liquidation procedure would have been at least 100 million Euros higher; while time provided for asset recovery enabled optimal timing and competent execution of the sales process and maximisation of revenues.

*Hypothesis 2/A:* There are three fundamental pillars of human resources management handling and resolving tensions and demotivation accompanying bank rehabilitation successfully: open communication, close cooperation with social partners, maximally fair treatment of employees.

*Demonstration:* Empirical evidence: Successful implementation of the restructuring plan of Probanka, creation of new values, peace of employees provide perfect evidence



of the properness of the initial human resources management related hypothesis. Despite 70% reduction of workforce yet, legal disputes, employment procedures occurred rarely (1.5% of all cases). Value of portfolios and client relations could be reserved until realization, proven by selling price exceeding planned and book value in each case. Every aspect of the restructuring plan of Probanka has been completed with a result exceeding expectations owing to staff commitment. The core team that was kept together, created new values above those involved in the restructuring plan, which enabled the preserve of jobs above the original target, moreover in long term, and it offers a solution for specific systemic problems of the Slovenian economy as well.

*Hypothesis 2/B:* Crisis management in Hungary has been performed faster and more effectively than in the neighbouring countries in compliance with the adequacy of managerial reactions. To demonstrate it, our team set the following *partial hypotheses* prior to the research seeking the answers through in-depth interviews and concrete quantitative analyses:

- Hungarian bank leaders perceived the crises prior to others.
- They understood its severe nature faster.
- They initiated appropriate communication measures sooner (internal, external communication).
- Slovenian customer attitude was not changed that much by the crisis, as Hungarian.

*Demonstration/rejection:*

Hungarian senior managers already faced the crisis in the 2007-2008 period, while leaders of the Slovenian banks in majority domestic ownership, faced the crisis later, and until this time they had thought their bank would be avoided by the crisis.

As Hungarian bank leaders anticipated the crisis at the beginning or even prior to that, some of the senior managers underestimated its severe nature in the first times. Contrarily, for the time when Slovenian leaders perceived the crisis, it was obvious that they faced local effects of a serious global crisis (it still took a long time to recognise and accept that most of the crisis is of „domestic origin”).

According to immediate effects, Hungarian leaders had to react faster, so they initiated necessary actions in the field of communication sooner. Banks in foreign ownership in Slovenia faced the effects earlier, and in accordance with parent bank instructions, their leaders took necessary measures sooner. However, leaders of domestically owned Slovenian banks expected that their bank would avoid the crisis, so they responded slowly to the shocks.

Customer behaviour proves to be independent of country features, bank leaders perceived similar changes with no significant differences in customer behaviour in Slovenia and Hungary.

*Hypothesis 2/C:* Profile of provident leaders giving adequate response to the crisis is marked by strong features; their measures executed professionally and in the right time make significant contribution to successful crisis management. Characteristics and managerial practice of ideal Slovenian bank leaders is identical to their Hungarian peers.

*Demonstration:* General profile of ideal managerial characteristics is similar in the two countries, although weights of specific characteristic features are slightly different in the two countries, it does not result in remarkable division of the profiles. Hypothesis related to the personal impact has neither been proved nor rejected by the research, personal impact of the leader cannot be separated from the strength and quality of owner and governance control, the red-line for successful prevention and crisis management (disagreement in the longer term is a logic nonsense).

*Hypothesis 3:* Measures for the recapitalisation of banks are eligible for the prevention of the collapse of the financial system, but insufficient to establish long term balanced growth and expanding credit supply.

*Demonstration:* Considerably, the introduction of a new prudential/bank rehabilitation system of instruments adapted to specific Slovenian conditions, prior to the EU deadline (although slowly compared to other countries) has proved to be overall effective; appropriacy of the hypothesis is evidenced by empirical data.

In foreign-owned banks constituting 30% of the banking system, capital replacement was executed by the owners where it was necessary, and state capital injection for domestically owned banks, DUTB transfers and shrinking lending contributes to the 17.9% capital adequacy, and 17.2% core capital level on the bank system level both exceeding the EU average in March, 2015 while at the 2012 valley it was 3.8 percentage points lower than that.

Structure of resources and liquidity has progressed remarkably, loan/deposit ratio decreased from its 162% peak to 89%, the value it showed a decade ago. Stable, high level national savings rate is accompanied by continuously increasing deposit stocks (from 20.8 bn in 2008 to 25.0 bn), and after the 2013 deposit withdrawals resources flowed partially back to large domestic banks following their state recapitalisation.

Restoration of the stability of the banking system restored confidence in Slovenia, reflected by fast, over 300 basis points fall of risk margin from the 2013 year peak, successful international bond issuances and improving credit ratings.

Shrinking of the credit volume continued despite the measures from 33.7 bn in the 2008-14 period to 22.2 bn (and by 7.1% even in 2014), first signs of stabilisation are apparent only this year. Major factors are moderate credit demand, tighter credit scoring (tightest in the Euro zone, comparable with Portuguese only), over indebtedness of the business sector, and increasing foreign borrowing of the best debtors induced by business credit surcharges 2-3% higher than the Euro zone level until most recent times.

Two main remaining sources of risks for the banking system shall be mentioned: credit risks (still excessive NLP ratio) and profitability risks (after 3 years of system level loss aggregate profit appears first in Q1 2015, but ROE level is still low and it is unlikely to be increased without consolidation/privatisation).

Although state capital injections increased equity interest of domestic banks and savings banks (13 institutions), their asset share has been decreasing continuously since 2009 (and more intensely in lending) compared to the 11 foreign banks and branches, that does not support, but reject common theories of more adaptive credit policies of domestic banks.

*Hypothesis 4:* Effective handling of distressed, mainly corporate debt is the key for economic prosperity, and the best combination of actions suggested by the Slovenian conditions is:

- full transfer of large loans to the state asset management company (DUTB), and
- Handling of the amount of loan remaining at the banks internally, as beside balance sheet cleaning it maintains perception of risks and danger in the bank organizations.

*Demonstration/rejection:* This hypothesis cannot or can only partially be demonstrated by the experience of the elapsed period.

- DUTB, as a new “greenfield” institution established based on unfavourable compromises, could perform its tasks with significant delay, low initial effectiveness and to a limited extent. This sub point of the hypothesis proves to be true finally, as after the legislative changes (reflecting among others the proposals of Probanka) corrected initial failures of DUTB, and modified tasks and priorities, established organizational structure, more intensive and better coordinated restructuring practice of banks have led to the first real results, completed transactions in the sphere of large companies.
- It was impossible to create an effective, proper organizational framework and operational practice for distressed cases facilitating mass rehabilitation of companies in banks, because of the fragmented nature of corporate loans. Regular SME-s are particularly hit by inadequate operation of both bank and equity market financing channels; mediating mechanisms and institutional system, that could replace the bank channel which is dysfunctional in this field, between distressed SME-s and specialised investors is missing. Simultaneously, persistent reproduction of distressed loans marks that financial and operational rehabilitation of the corporate sphere shows hardly any progress, and that most of the corporate sphere has not faced positive impacts of export driven growth yet.

According to the concept modified based on the experiences mass handling of distressed loans requires the implementation of a multipole, multichannel system in Slovenia. Essentially, restructuring fund(s) shall be created to collect fragmented claims

towards SMEs from the banks in a market-based manner, and through the acquired majority creditor position they can take an active part in the reorganisation, recapitalisation of distressed companies once assets revaluated after the consolidation, or the fund itself will be sold to private investors who can also inject capital in viable companies. The concept of restructuring fund(s) beyond DUTB, attracting private equity, and focusing on the concentration of remaining bank loans towards SME-s, to be implemented on the platform of Probanka was approved by the Slovenian government recently.

#### 4. CONCLUSIONS AND PROPOSALS

Special challenges of distressed loan management in Slovenia are the stiffing burden on viable core activity created by non-productive assets owned by enviable, inactive holdings, company divisions diverging from the main profile, and speculative transactions; excessive corporate indebtedness and shortage of capital, and strong bank-creditor fragmentation in the SME sphere as well. The banking system in itself is not able to perform mass handling of distressed loans, but this problem shall be solved in order to achieve sustainable economic development, so based on the above features the implementation of a multipole, multichannel institutional system is required in Slovenia.

1. In the individually managed large company sphere, restructuring under DUTB control, and more or less established syndicate handling mechanisms of remaining exposure in bank balance sheets enable – based on an agreement or after a fight with the management/owners of distressed debtors – improvement of corporate performance, selling of assets not required for the core activity, and in the end raising equity and financing through professional or specialised financial investors.

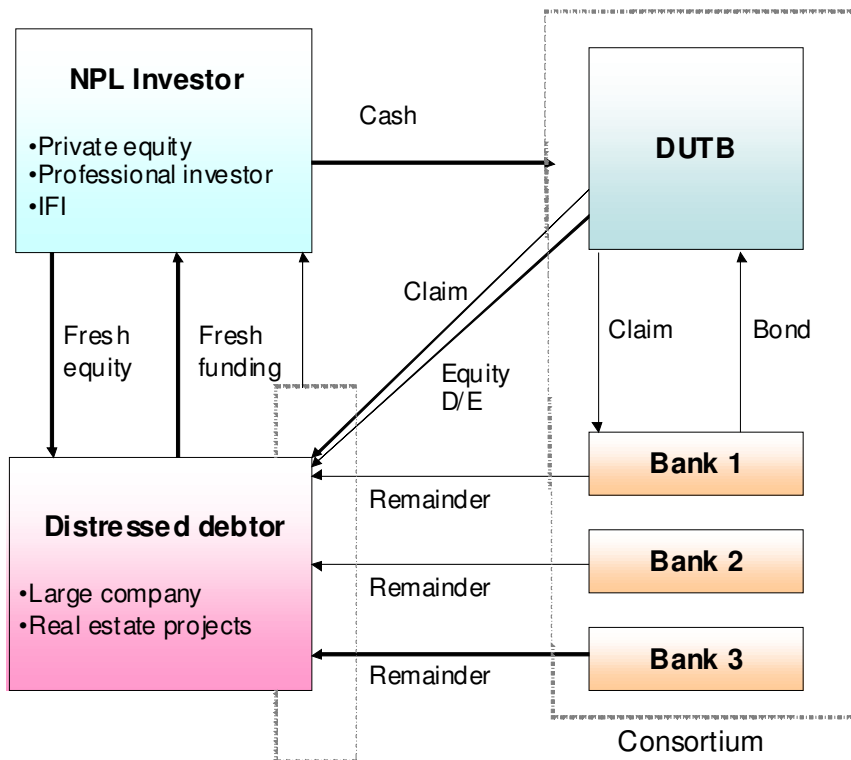
2. Handling of a large number of moderate amount distressed loans remaining in the banking system would normally require internal solution of the banks in order to avoid moral hazard (it keeps on perception of danger in the organization to offset bankers' bad memory), and to reserve necessary problem handling capacity required in "peaceful times" as well. However, shortcomings of practice showed that Slovenian conditions (large number of creditors, low effectiveness of bank restructuring, still expanding NPLs) make it reasonable to handle at least a part of the SME stock using concentrated outsourcing methods, as the bank channel cannot provide effective lending, and it is unable to mediate between investors and the segment.

Scale of problem to be resolved: 3.766 bn Euro gross NPL stock claimed against the SME sector according to official statistics, shared more or less equally between banks and the DUTB. Taking the estimate value of NLP loan after specific corrections, that is the 1bn Euros (6-700 million is from bank balance sheets) debt of still operating, indecent SME-s, which can still be rescued, and adding vulnerable loan, that is 15-20%

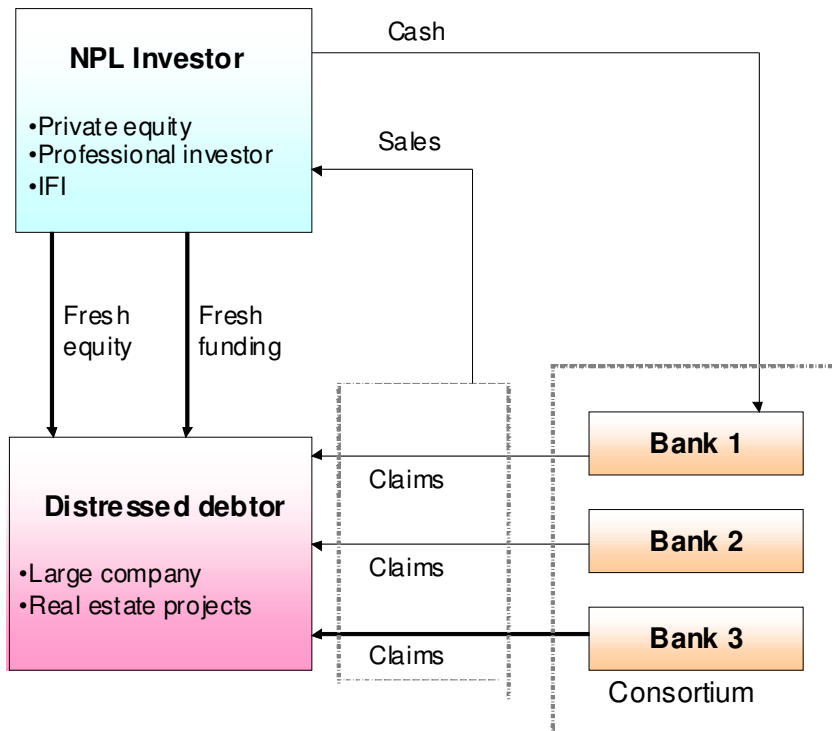
of the 2.6bn sum of banks – total restructured dept equals 4bn Euros –, we are facing a pile of problems to be resolved, namely 1-1.5 bn Euro amount of claims from several thousands of debtors.

The selected option of the probable alternatives enables involvement of expertise, equity and financing required for real restructuring through institutions/channels to be established so that it does not burden the budget, and excludes lengthy EU application procedures for the authorization of state funding inevitable in any other options.

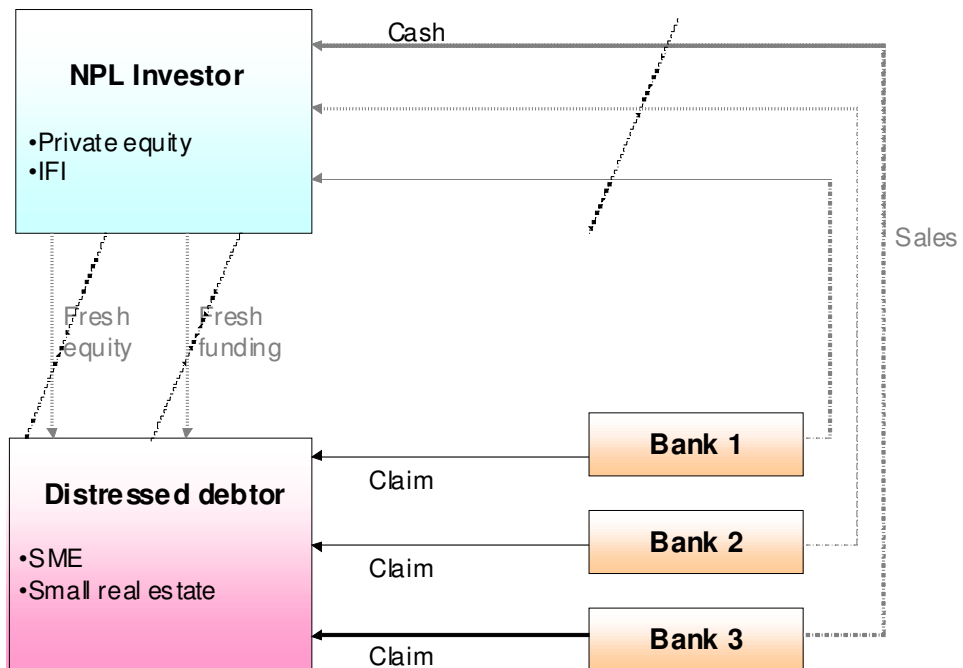
Scheme of the proposed multichannel system are demonstrated by the following figures (Figure 1, 2, 3, 4):



**Figure 1:** Wholesale bad asset management with DUTB

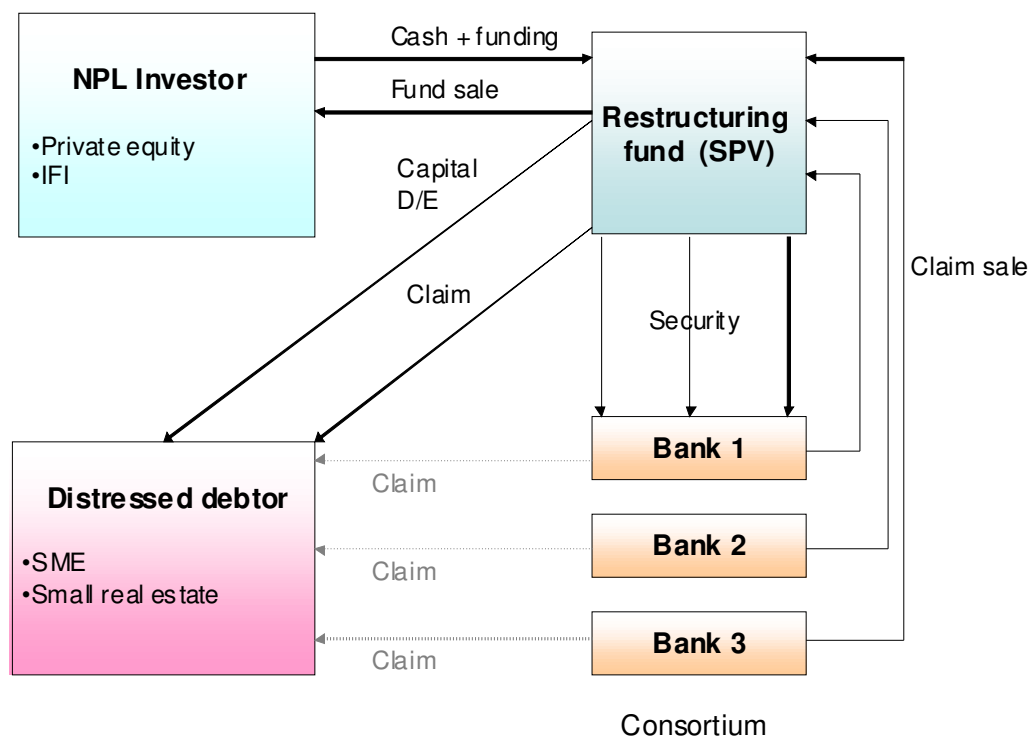


**Figure 2:** Wholesale bad asset management without DUTB



**Figure 3:** SME bad asset management currently





**Figure 4: SME bad asset management, proposed**

The first and the second figures show the well-established reorganization scheme of large companies, projects, groups of companies. Essentially, creditor banks (majority) create a consortium, with active managerial involvement of DUTB or not, depending on the specific situation, and conclude a reorganisation agreement with the debtor within the framework of an out-of-court mutual recognition agreement (MRA), or a process supervised by the (preventive restructuring or obligatory, enforced settlement) court. These agreements typically contain the restructuring, re-pricing of loans, creation of a security pool, loan/capital conversion in some cases on behalf of creditors, while reorganisation of the viable activities of the debtor contain already improvement of effectiveness through the sales of not basic assets, new management, write down of share capital. As neither the banks not the DUTB are able to provide share capital, and as a diligent owner, to provide a long-term supervision of the operation of the debtor, after basic status improvement measures, the involvement of new capital is exercised by the sales of claims and shares – usually at the same time –, for a professional or specialised institutional investor.

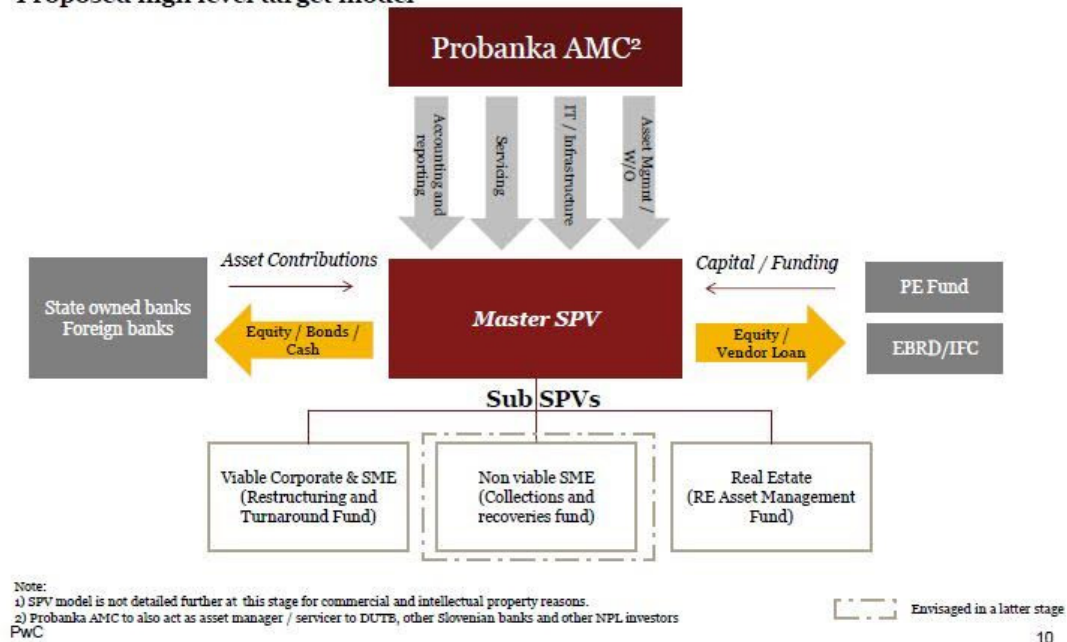
In principle, the above mechanism could work with SME cases as well, where according to the Slovenian practice there is a number of banks involved, but it usually does not work. Its reason is that the concluding of even limited number of large company consortium agreements take a long time and require much resource, but there is no option for SME-s, because of the large number of debtors and quite similar time and cost of the individual process. Investors do not buy minority interest, so the majority of attempts on behalf of banks to sell claims remain unsuccessful, and investors do not go in for buying majority shares in a lengthy process one by one. Debtors in shortage of capital cannot receive loans without new equity – and the vicious circle is complete for most of overindebted SME-s.

The concept of the establishment of restructuring fund(s)/ (SPV(s) is aiming to fill in the missing link of the process. After mass buying/collection and consolidation of claims towards individual debtors, the fund is sold for a private investor (typically: private equity) making necessary steps for reorganisation, asset sales in possession of the majority position, and provide capital/financing for viable debtors. Purchased assets are handled by the investor, or outsourced to a professional asset management company (AMC).

The restructuring fund to be established would not operate as a competitor of DUTB, but as complementary institution in a separate segment. As it will raise capital from private and/or bank equity, it will not burden the state budget, and for the provision of surplus financing it will not be obliged to take part in lengthy authorisation processes related to Brussels, that is inevitable for a state-owned institution. The key of successful operation of the fund is to collect large volume, and through that provide for proper scale effectiveness, and to reach significantly lower unit costs than those of DUTB through industrially standardised handling processes. Another basic success factor is to bridge the pricing gap: to bring closer largely different price expectations of selling banks and investors (deriving from different levels of expected returns/discount rates and asymmetry of risk information), through the structured issue of securities not realising losses immediately, and instead of cash-based buying, offering share in the success of reorganisation (upside) (*Figure 5*).

## Our proposed solution (3 of 6)

Proposed high level target model



**Figure 5:** Probanka AMC operations model

Adopting our proposal for private restructuring funds competing with each other, but performing complementary role with the DUTB, and the platform handling them (AMC), the Slovenian government entitled Probanka and BoS in June 2015 to implement the concept. Structure to be established is demonstrated by the above figure.

Major lessons of the Slovenian experience for Hungary:

- domestically owned banks at the time of a crisis without proper supervision, prudent risk management practice and corporate management may impose serious burden on the budget,
- resumption of lending shall be facilitated by market based transfer of distressed debt, preferably to an asset management company established on the basis of an operating institution,
- An economy in shortage of capital can only be competitive with its stable micro sphere, presence of internal and external capital.

### ***Risks in the banking system***

- Slovenian and Hungarian corporate NPL rates and reserve coverage indicator follow very similar curves after the crisis, while domestic retail loss ratio was an order of magnitude higher in Hungary than in our neighbour. Major difference appeared in the resources of the resolution of losses: while in Hungary (and Slovenia) foreign parent banks had to bear the burdens, central resources were used up only by small domestic banks/brokerage companies, massive losses of domestically owned banks in Slovenia had to be covered by public funds.
- It is observable that the type of ownership (state, domestic private, foreign, stock exchange) solely does not determine performance differences, as in Hungary profitability of foreign owned banks show an extreme deviation as well.
- Strength and professional nature of ownership, quality of corporate management can be marked as decisive factors – correlation with the type of ownership is shown in this aspect.
- Dominance of domestic ownership increases risks of a domestic burdens of future loss settlement.

### ***NPL management***

- Complementary/competitor combination of a central NPL- management institution and market players seems to be the most effective solution. It is appropriate to involve private capital in the operation of the central NPL Management Company (budgetary consolidation, to avoid the increase of public debt.)
- Market based transfer prices could support effective operation, and the foundation /migration of NPL manager companies on the existing platform/institutional basis, probably saving half/one year on the otherwise lengthy start-up process (both countries experienced the same deficiency).
- Overlapping, and often conflicting functions of MNB as central bank, supervision, bank reorganisation and bad assets management institution ownership, balanced, transparent handling of probable conflicts of interest is of vital importance.

## 5. NEW SCIENTIFIC FINDINGS OF THE DISSERTATION

1. Review and analysis of crisis management elements of the variety of monetary instruments, bank capital and liquidity regulation, history of the development of the system of tools and instruments of crisis management/rehabilitation of financial institutions, and their continuous, interaction based restructuring. I have not found any complex approach in the professional literature reviewed that would compare to this one.
2. Similarly, the analysis of the successive and country specific history of the development of bank supervision, bank rehabilitation, deposit assurance security system and the handling of distressed loans after the 2008 crisis, differentiating time the two groups of countries based on their common characteristic features and their succeeding in time (central developed countries and periphery countries of Europe) is ultimately unique and novel.
3. The Probanka case study reviews the non-routine independent reorganisation of a small bank, the special situation continuously requires development and demonstration of answers to unique challenges, methodology and findings of impact assessment of alternative solutions, development of accelerated closure variations in line with the changing environment economic policy priorities, and combined with extension of system level tasks (in connection with the following point), definition and results of optimal human resources management treatment of the reorganisation process provide scientifically demonstrated new, unique results maximally usable in practice.

I have used the case of Probanka to demonstrate the specific thesis, that in the time of a crisis reorganisation of even small banks may have better results than liquidation, however it is a sub-optimal solution on the system level because of their size, it is more appropriate to merge distressed banks through acquisitions into (an) institution(s) demonstrating higher scale efficiency.

4. Most important, substantive result of the study utilizable/utilized at the system level is the proposal for a multichannel distressed loan management system tailored to Slovenian features, and its commenced implementation.
- Using the unique methodology I developed, I supplemented missing data using expert estimation, and demonstrated that reorganization activity of banks had not brought required results, and contrary to picture shown by statistics, NPL formation in Slovenian banks did not stop even after bank rehabilitations in 2013-14 and forward-looking indicators forecasted further increase, particularly in the SME segment, provided that system level intervention would be have been omitted. Based on my results, the BoS completed its public analyses related to NPL-s of SME-s, the issue became an economic policy priority to be resolved, and the government made a decision to implement the practical solution in accordance with my proposal.
  - One of the main pillars of multipolar institutional system is DUTB. Partially based on my proposals, its regulation and operation is gradually evolving from the status of a bank as a savings institution to become the main restructuring institution of the large company sphere. The new Board of Directors, based on my proposal, adopted a modified set of KPI-s as a basis of performance measurement, which contrary to traditional corporate performance indicators, take the special operational features and accountancy specialities of a distressed asset management company, and reflect real performance with higher accuracy and stability.
  - I have demonstrated that the most accurate way to the cleaning of balance sheets and rehabilitation of SME-s suffering from financial hardships in the private sector, is the establishment of restructuring fund(s) to be sold in transparent processes, accompanied by a strong “pressure” on behalf of the government and the central bank towards the banks, and open the channel directed towards this segment for private/foreign equity searching for investment opportunities, that is essential to remedy serious shortage of capital. This scientifically established concept is implemented in accordance with my plans, based on unique experience and platform basis created along the well-organised derecognising process of Probanka that operated under my leadership until the recent past.

5. Unique scientific result is provided by the most important conclusions of the statistical process of the data of in-depth interviews with Hungarian and Slovenian bank leaders and questionnaire surveys.
- The crisis polarised extremely bank performances in Hungary and in Slovenia as well, separating institutions which preserved their profitability from the beginning to the end, and their well-balanced operation even in the period of the recovery, from those financial institutions which gathered severe loss as a result of taking extensive risk in the past, slow reaction and accommodation to the crisis. Differences originate in the method and close nature of corporate leadership and owner control, and the senior level managerial operation defined by this framework.
  - The crisis magnifies weaknesses of an organization, requires tauter and faster accommodation. Those organisations, which were monitoring early warning signs even in the upswing period, and gave an appropriate reaction in time, could survive the crisis (fine). It required absolutely conscious, strong and tight leadership.
  - Crisis management as a whole was performed faster and more effectively in Hungary than its neighbouring countries, as a result of better adequacy of managerial reactions on the whole. However no correlation can be demonstrated between individual bank performances and the timely nature of managerial recognition of the crisis, because apperception of the crises took much shorter time than in Slovenia, so there was enough time even for banks which reacted relatively slow to apply the brakes , ahead most of Slovenian financial institutions. Effectiveness of crisis management at Hungarian banks depended much more on the effectiveness of initiated measures, and the portfolio quality determined by business risk taking practice prior to the crisis, than on the time of apperception of the crisis.

However, in the group of Slovenian banks we can clearly see an 2 year time gap between profitable (mainly foreign owned) banks and loss-making (except for one domestic) banks, concerning time they recognised the crisis, so the cause and effect relationship between the time of recognition of the crisis and the effectiveness of measures taken cannot be separated from owners' requirements.

- Based on the in-depth interviews a uniform profile of the bank leader able to manage crisis appropriately can be drawn up: long term strategic thinking, respect of the “golden rules”, but continuous questioning of routines, habits, early recognition and apperception of problems, admission of failures and fast self-correction, fast and determined response measures, leading by example and open communication.

Majority of scientific results of the study originate in putting results of theoretical knowledge based analyses and concepts into practice. Results can be utilised generally, although adapted to given specific conditions and time.



## 6. UTILISATION OF THE FINDINGS IN PRACTICE

Without repetition of previous details, conclusions of the dissertation can be utilised in the following fields and in accordance with the following **methods in practice**.

- Based on the experience of Slovenian and Hungarian bank rehabilitation it is suggested to establish a framework of bank supervision, regulation, corporate management, ownership relations, where crises management costs place the least possible burden on the public sphere.
- Synthesised reorganisation experience of Probanka can be used as an overall action model and action programme example for the rehabilitation of any bank.
- Initial implementation failures of DUTB, and their correction visualize the optimal model of the bank „bad-asset” management institution: portfolios of homogeneous profiles, majority bank/private ownership, created on an operating platform
- The solution designed for distressed SME loans – based on practical experience of operation as well – can give a good example for the establishment of similar system level platforms and reorganizational funds.
- Profile of the leader able to manage crisis appropriately can give guidelines for the selection of bank leaders of the future in order to avoid unfavourable experience of the latest crisis.

## 7. SUMMARY

In the first part of this dissertation I analyse the development and major elements of the financial crisis management system developed as a result of complex changes that took place at different parts of the world originated in the world economic crisis that began in year 2007, and escalated in year 2008.

The reason why I consider year 2008 as the initial year of my analysis of European countries, primarily Slovenia is that the crisis escalated after the Lehman, and took shape in extreme fall of the GDP, drying-up of money-markets, and sharp rise of unemployment. Original starting point of the nearly globally escalated crisis was the subprime crisis in the USA in year 2007, that was initially (and in many cases today as well) considered improperly as a primarily financial crisis only slightly spreading over the real sphere, and only temporary and limited extent spreading over the economies of other countries was anticipated. This presumption appeared to be reasonable to some extent based on the experience of recent local financial crises (Mexico, 1994, South-East Asia, 1997, Russia, 1998), which were followed by a fast recovery (in some months) of extremely sustaining growth of the world economy. Actually, the crisis indicated the fall of a financially stimulated social lifestyle model, that was characterised by overconsumption based on cheap credit, unproductive investment and the wealth effect constituted by continuously increasing asset prices ("trees grow to the sky...") in a number of developed countries, or aspiring for this level in the peripheries of Europe, while developing countries following sound monetary and fiscal policies, even based on experience gained from previous crises, strengthening their bank systems and capital markets, were only affected by the crises to a limited extent temporarily. Within the range of actually analysed countries, Hungary – despite that restrictive measures introduced in 2006 had already slowed down economic growth (let alone the credits!) – was hit by the turn: while the Forint was strengthening to the 228 Forint/Euro rate for August 2008 (one month before the Lehman) – from the 250 Forint/Euro rate that was consensually considered as the equilibrium rate –, exchange rate was close to collapse for the end of the year. Slovenia was partly saved from this effect by the Euro, but slow respond is still among the main sources of economic problems of the country.

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Continuously forming response measures have brought an overall paradigm shift regarding the handling of financial side of the economic crises, with changes constituting a three pillar coherent system: crisis management elements of the system of monetary instruments, first line of defence of instruments of the capital- and liquidity regulation system, and bank regulation/rehabilitation system of instruments enabling fast defence interventions actually. All these three pillars shall be applied in order to enable a country suffering from financial problems overcome the crisis successfully.

Traditionally, central banks cared for sustainable monetary and fiscal stability using monetary transmission mechanisms, changing prime interest rate, but after the crisis of 2007-2008, as a result of the 0% nominal interest rate, traditional monetary policy „toolbox” appeared to be empty. Depending on their opportunities, central banks responded to this new challenge improving the efficiency of transmission mechanisms through increasing the sum total of their balance sheets and bank financing, and through direct purchase of assets where it was possible.

Empirical evidence of the operation of QE have marked that purchasing of assets is primarily effective if fresh central bank sources released can be used directly by non banking financial sector to promote economic growth. Periphery countries having less diversified financing structure, it is inevitable in the long term to balance financing structure of the enterprise sector in order to maximise monetary policy efficiency and promote the real economy; central banks of several countries have already made steps accordingly. Despite partial results it is obvious that monetary policy alone is not able to restore corporate lending levels of the pre-crisis period: it requires deeper changes, including regulation changes and the active involvement of the private sector.

Capital regulation was neglected for a long time, coordination between countries was missing, and it only became attractive for regulatory interest in end of the 1980s, originally as a tool to balance competition of international banks. Capital regulation arrangements published in 1988, known as Basel I in our days, beyond their original role to balance competition, became the cornerstones of international prudential regulation as they are easy to understand and simple to apply. Extension of the application strained the original frameworks of Basel I, and in response to this tension, after several years of negotiation, Basel II framework was published in 2004. Basel II already focused on prudential regulation, at the calculation of capital adequacy ratio, it thought

of a comprehensive scheme of risks, actively counted on the application of internal bank methodologies, that created an advantage for international banks, having sufficient resources to apply risk measurement systems, and playing active role in the implementation of the system; beyond that pro-cyclical effects of the introduced capital requirements were criticised a lot too. Another recent reform of the framework was induced by the economic crisis (even before its global spreading) demonstrating deficiencies of risk assessment and modelling; liquidity problems and credit crunch marked that beyond regulation of the amount of equity, supervision of liquidity is required as well, for the reservation of the global banking system. In reply to that Basel III framework published in 2011, integrated the experiences of Basel II and Basel 2.5 published in 2009, and beside the introduction of two new capital adequacy buffers it contained a short term (LCR) and a medium term (NSFR) liquidity ratio as well. It is questionable, whether the general introduction of the Basel III in the Anglo-Saxon countries contrary to the European Union, will generate competitive handicap for the European banks similar to the end of the 1980 compared to the Anglo-Saxon and other financial institutions outside Europe, and whether the more and more complicated and obscure system of rules is really adequate for its declared purpose, establishment of stability in the banking system through prudential-, liquidity- and capital regulation.

The third pillar of financial crisis management system is constituted by three closely connected crisis prevention and crisis management instruments and institutional systems: bank supervision system, bank reorganisation fund and mechanism, and deposit insurances. Their development was guided by common philosophy in most countries hit by the crisis. After year 2008 – similarly to the two preceding crises – significant changes commenced all over the world concerning bank regulation and – supervision. To prevent successive rescue packages (bail-out) compared to the previous regulation philosophy, macro prudential regulation for the prevention of systematic risks gained priority, that was followed by the separation of commercial and investment banking (again) in the United States and in the United Kingdom. Beside retaining the universal bank system in the Continent, significant organisational changes were generated (proceeding acquisition of supervisions by central banks), the bank union was created, a consolidated regulation system of institutions with authority all over the European Union, and as a result of the introduction of the single bank resolution mechanism and the bail in, member countries received an important tool for their

microprudential supervisory activities, which Slovenia started to use to help banks out of crisis even prior to legislative harmonisation, while in Hungary established legal and institutional framework can be used for other ambitions beyond and instead of prudential bank bailout (this task has already been completed by banks' shareholders).

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The new financial crisis management system did not appear from one minute to the other, but it evolved as a result of interaction of local responses at separate places, separate times and different field of application. According to my hypothesis it is possible to differentiate two groups concerning the answers; first wave of crisis management in the analysed "star" countries, the United States and in the European Union, namely in the central states (PIGS, Cyprus, Slovenia or Hungary) of the Euro Zone, and these initiatives were followed by periphery countries with some margin in time and building on their experiences.

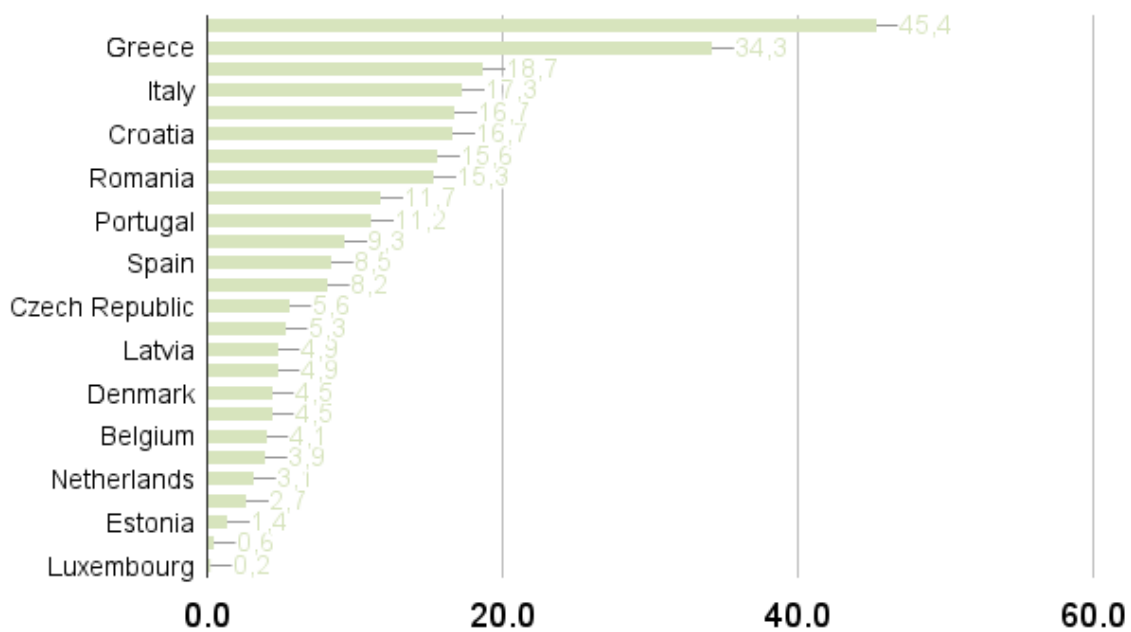
After the breakout of the 2008 great economic crisis, developed economic powers gave closely similar responses to the developments without any central coordination. Countries having well-established, stabile bank- legal systems responded by a single and strong regulative and governmental action and as the result of that these countries could successfully avoid the collapse of their bank systems, and international bail-out packages as well.

Based on direct response to the crisis features we can observe a two crisis management trends. In the first round, at the time of the crisis itself in order to restore confidence in the bank system of central countries through extremely high volume of guarantee, on bank deposits /resources general and overall guarantee, direct liquidity injections, and through unique bail-out packages most of them have already been paid back) for structurally strong banks in crisis, all this placed a significant burden on the budget of these countries.

It was followed in the second round by the It was followed by the second round, rethinking of the regulation and crisis management framework. In countries where sovereign monetary policy can be pursued, this rethinking focused in the first round on the role of monetary policy (QE) and the priorities of macroprudential regulation. In Euro zone countries, linked to the ECB, the lack of local monetary intervention, and late

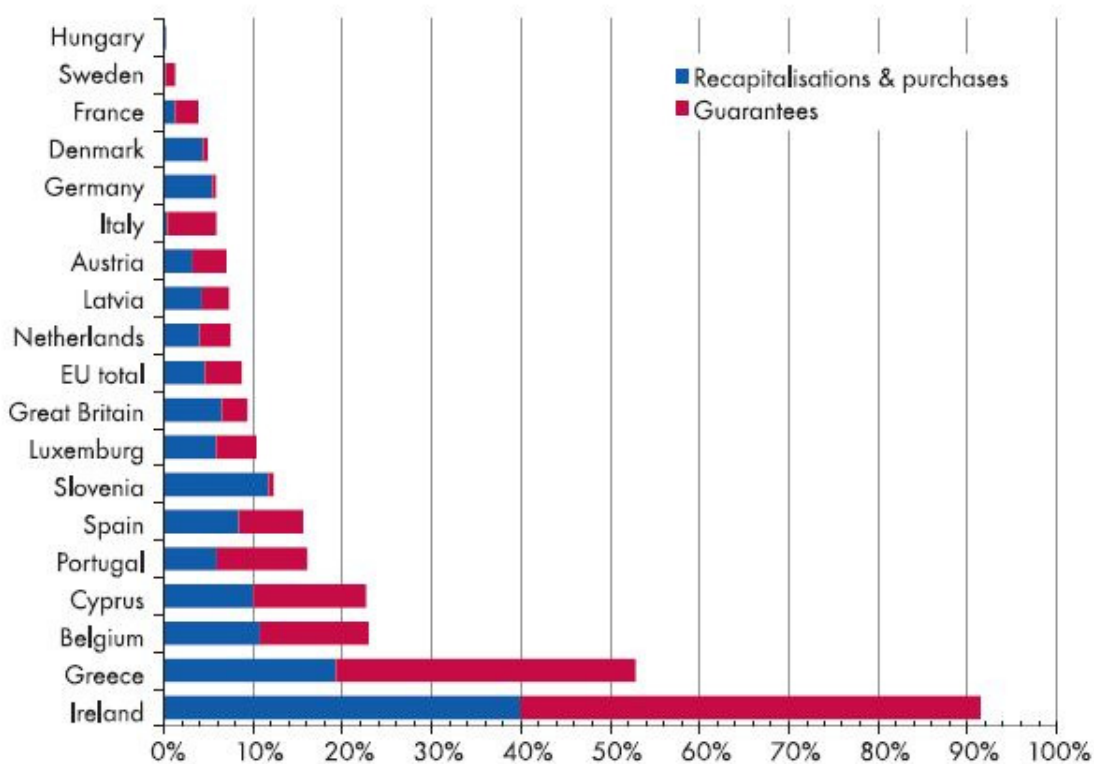
introduction of alternative tools on behalf of the ECB, the rethinking of bank supervision and bank resolution mechanisms from the very first time, that was performed by these countries through the theoretic framework of bad-asset management institutions and the theoretic framework of bail-in-s, or through their usage in practice. Until the end of reform processes the implementation of the single bank supervision and resolution mechanism, which was supported by the theoretical background of crisis management methods worked out in the central countries, developed within the framework of the European bank union, has already taken place in each euro zone country, or it is in progress.

Crisis management of the periphery countries of the European Union shows an even more diverse picture than that of the central countries; diversity originates in the lack of coordination forum for the formation of a single crisis management mechanism between the countries diverse in size, population, bank sector, and located far from each-other geographically. In spite of all that periphery countries became „experimental bases” for the practicing of the crisis management methods developed by the central countries, experiences show Euro-zone countries drifting in crisis one-by-one in the following years because of different reasons: state bond yield (Portugal), collapsing bank system (Cyprus, Ireland, Spain); their governments were forced to require external bail-outs, and in return for the rescue packages (compulsory for Cyprus) they have implemented step by step, with significant local amendments, and in most cases successfully in practice, the frameworks of bail-in and bank rehabilitation developed by central countries. Measures, despite significant sacrifice, led to the passing of the direct crisis in most of them for these days, and slow start-up of economic development.



**Figure 6:** Proportion of non-performing loans in the Euro zone

Source: Banka Slovenije, 2015



**Figure 7:** State aid approved to financial institutions in the period 2008-2012

(in % GDP 2012)

Source: Jasovic and Tomec, 2014

The above figures (*Figure 6, 7*) show the difference between the NLP problem packages that individual countries have to overcome, and we can see the deviation in the extent and volume of the developed system of instruments in response. Slovenia a slightly hanging out (peak NPL-ratio equalled that of Ireland at the top) because it skipped guarantees as tools almost completely, and Hungary, where practically no bank resolution from taxpayers' money took places – recovery of losses was performed by well capitalised owners (most of them foreign owners).

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Slovenian economy followed an inconsistent path prior to accession to the EU (2004), and afterwards as well. Period 2004-2008 can be characterised on the in hand by sane, well-balanced monetary and fiscal policies resulting in the accession to the EU (2007), and on the other hand, by overheated economic growth generated by credit expansion based on rich and cheap foreign resources, unproductive investments and fast over-indebtedness of the corporate sphere strained by unclear concentrations and connections.

The global financial crisis increased „domestically produced” structural and financial vulnerability of the a Slovenian economy, and resulted in the second highest GDP fall (9.4%) in the 2009-2013 period in the Euro Zone, with a double valley recession (2009, 2012/13). Government debt increased to 82% of GDP from 22%, while domestic private debt increased from 55% to 90%, foreign debt doubled and expanded to 105%. The majority of domestic (most of the state-owned) banks lost its equity at close to 70% level, and despite the 5.3 bn Euros spent or allocated for their rehabilitation lending was shrinking continuously, signs of stabilisation became only apparent in 2015. 2.6% economic growth departure from its low base in 2014 could partially turn back the freefall of international competitiveness indicators of Slovenia only for these days. The real sphere is still endangered by mass bankruptcy, corporate over-indebtedness, shortage of capital, and fragmentation of loans and as a result, slows reorganisation.

Considering current status of the Slovenian economy, sustaining, healthy economic growth can only be realised as a result of in-depth reform program. Main directions of development are: preserving restored macroeconomic stability, restoration of international competitiveness, further paths of the rehabilitation of the bank system, and accelerated reorganisation of the corporate system. In my dissertation I have analysed



and described measures implemented concerning the two latter paths, and researched and drawn up further steps required for the transformation of the financial system.

It is declarable that the introduction of the new prudential/bank rehabilitation system of instruments before EU deadline (although, compared to other crisis-countries slowly), tailored to Slovenian features has proved to be overall successful. In foreign owned banks, making up 30% of the bank system, capital replacement – required in some cases – has been executed by the owners. Confidence in domestically owned banks has been restored after state recapitalisation, while effective handling of distressed loans (NPL), a enhancement of profitable operation (via business model change, cost reduction and consolidation/privatisation) are objectives to be realised yet, similarly to risk management, transparent corporate management, and improvement of other conditions of prudent operation. Consolidation of the small banks, creating solid basis for their operation is a special task, although it does not hold system level risks.

Continuous reproduction of distressed loans mark that most of the corporate sector has not faced positive effects of export driven growth yet. Three main paths in this field are: liquidation of non-viable companies, reutilisation of their assets for production, mass restructuring of viable companies, accelerated financial and operative restructuring, recapitalisation, absorption of necessarily released workforce through stimulation of the creation of new enterprises, investments. With regard to domestic shortage of capital, over expanded and indebted state sector, this task can only be implemented through massive foreign equity flows into the country. Main pillars of institutional system level changes accelerating NPL management and corporate reorganisation are: extension of DUTB authorities, simultaneously transferring claims from mainly SME clients remaining at the banks into new, privately owned reorganisation funds; implementation has commenced (for more details see Hypotheses, Results and Conclusions).

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In the "golden age" preceding the crisis dynamic growth in the bank sector as a whole and high profitability in Hungary and Slovenia as well (and in most markets) largely hide fundamental differences in business policy, risk profile, efficiency. The crisis polarised bank performances excessively in both countries, with institutions preserving their profitability show well-balanced operation in the in the boosting period as well on the first side, and financial institutions piling up excessive losses as a result of extensive

risk takings, slow adaptation on the other.

Concerning Slovenia, ownership constitutes the "divide", as all foreign banks (except for Hypo Alpe Adria Bank that is infamous for wrong management all over the region, and it is state owned as well) could stay profitable even during the crisis, but most domestic banks (except for some small banks, which based on their rates probably brushed up their balance sheets) have lost its capital several times. Divide line in Hungary lies not between domestic and foreign banks – as foreign ownership had dominance in the Hungarian bank system until the most recent times, and the group of foreign banks was divided into sustaining profitable financial institutions and those generating massive loss –, but it lies within close (exchange or strategic ownership) and external supervision. Properly speaking it is true in Slovenia as well, although strength of control there shows much more correlation with foreign/domestic ownership.

Decisively, differences originate primarily in company leadership and owner control methods and strength, and managerial activity performed within the framework determined by them.

The crisis enlarges weaknesses of an organisation and makes the adaption process faster and tauter. That organisation, which is monitoring early warning signs even in the upswing period, and reacts appropriately in time, can survive the crisis (fine). It requires absolutely conscious, strong and tight leadership. Simultaneously, the crisis enforced leaders to settle the operation of their banks, and take efficiency those improvement and risk mitigation measures, which require sacrifice, and none or just most provident leaders would have taken in a flourishing economy.

We can make the conclusion: „never sit on the trend line”. In the time of the economic boom, leaders often forget about watchfulness, and forgot about the fact that the situation may change within a short time. Fear from lagging behind competitors in an environ holding aggressive growth objectives, where regulation cannot stop the appearance of imprudent excessiveness, consequently enlarge probability of suffering losses, renders it more difficult for a leader to go against the trend.

This period was a serious signal for all of us, strategic risk consciousness formed in the majority of banks during risk management. Being a leader during an upspring period, and then learning to say alive and manage a crisis like this provides experience and knowledge, that is invaluable high for each bank leader and the bank sector as well.

Finally, the most important conclusions for Hungary briefly: domestically owned banks at the time of a crisis without proper supervision, prudent risk management practice and corporate management may impose serious burden on the budget, resumption of lending shall be facilitated by market based transfer of distressed debt, preferably to an asset management company established on the basis of an operating institution; an economy in shortage of capital can only be competitive with its stable micro sphere, presence of internal and external capital.

## 8. PUBLICATIONS IN THE SUBJECT OF THE DISSERTATION



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Registry number: DEENK/235/2015.PL  
Subject: Ph.D. List of Publications

Candidate: Imre Balogh  
Neptun ID: AG7VYS  
Doctoral School: Kerpely Kálmán Doctoral School  
MTMT ID: 10051455

### List of publications related to the dissertation

#### Hungarian book chapter(s) (1)

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Hungarian conference proceeding(s) (4)

5. **Balogh I.:** Pénzügyi válságkezelés: Szlovéniai tanulságok Magyarország számára.  
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The Candidate's publication data submitted to the iDEa Tudóstér have been validated by DEENK on the basis of Web of Science, Scopus and Journal Citation Report (Impact Factor) databases.

03 November, 2015

