

# **DOCTORAL (PhD) THESIS**

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## **PRUDENTIAL REGULATION OF BANKS, THEIR SUPERVISORY AND SHAREHOLDERS' CONTROL AND INTERNAL AUDIT**

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# **1 ANTECEDENTS, GOALS AND OBJECTIVES OF THE RESEARCH**

## **1.1 Research Antecedents**

According to experience to date, it is impossible to exclude the cyclic nature of economic growth either in individual national economies or in the entire world economy. The financial crisis – stemming from the deficiencies in the operation of the financial system – can only reinforce real economic cycles; hence the importance to avoid it should be paramount for the world economy. The financial crisis of the past few years made it obvious that the operational disturbances of the financial institutions have been decisive, if not exclusive, among its reasons. The operation of financial institutions in general can be analysed and criticised through many different approaches. Surely, the outbreak of the financial crisis was due not only to one, or not even to just a few reasons; numerous contradictions and distortions can be pointed out as a combined result of which the negative processes were set in motion, presenting the long, prolonged V or W-shaped cycle.

My thesis is not about the financial crisis, I cannot even say that it is directly related to it. Yet it cannot be regarded fully independent of it, since exactly because of it problems such as the internal anomalies of banks (both commercial and investment ones) operating as limited liability companies, the poor

effectiveness of manifold controls, and the limitations of enforcing ownership interests have become more recognisable.

I focused on the difference between the interests of the owners and of the management and the institutional controls guiding the different interests into a channel of still acceptable width and depth. The principal-agent problem, though many times analysed by the researchers in the past, had to be addressed again to accept that an information and interest asymmetry exists between the owners and other stakeholders at one end and the management on the other.

Although reduction in the interest asymmetry may have been evidenced in the recent decades, unfortunately, it did not take place through management interests becoming more long-term in nature but through a decline in the interest horizon of the owners. In a corporate structure where the liability of the owners is limited to the face value of their shareholding, shareholders tend to focus on gains deriving from buying and selling shares (i.e. riding the curve) and not on actual growth of the companies that could be sustained over the long run. This would not be a problem if overall social utility was not jeopardised, but evidently in the case of financial institutions it could be substantially eroded.

## **1.2 Goals and Objectives**

The primary objective of my research was to address the question how within a fragmented ownership structure uninterrupted and sustainable operation of banks could be achieved in the most

efficient way taking into account not just the interest of the shareholders, but also the interests of other stakeholders (deposit/account holders, financiers, even taxpayers). I examined issues arising from the specific nature of the limited liability companies, the efficiency problems of the banks' management and supervisory bodies (board of directors, management board, supervisory board, audit committee), issues related to the control functions and institutions beyond corporate governance (external auditors, internal audit, bank supervisory authority), the adequacy of the banks' remuneration (incentive) systems and the impact of changes in the person of the chief executive officer (CEO) on the level of loan loss provisions and, through that, on the banks' results.

The objective of this dissertation is the analytical presentation of the studied area, which goes beyond proving or rejecting predetermined assumptions. In my view, the presentation and critical analysis of the situation is at least as important as answering assumptions. Nevertheless, in the course of my research and data collection, a picture evolved on the basis of which it was concluded that in order to have the banks operate in a sustainable manner over the long term and maximise the social utility (or rather to approach it as best as possible), the problem should be approached from many angles and consequently joint application of all available instruments (management and supervisory bodies and supervisory institutions) and co-operation of all actors are needed.

A fundamental precondition to maximising social utility is transparency, which cannot be interpreted without true and fair financial statements. The losses suffered at the level of society as a result of the crisis were substantially higher due to intentional or unintentional underestimation of provisions in earlier periods, in case of banks, primarily of loan loss provisions (LLP) and impairment of investment portfolios.

The issue of how to improve the true and fair character of financial statements – whether by regulations, supervision, or audits –, has been an eternal topic ever since limited liability companies have existed. Literature on the subject matter explains that managers should be put in a position to be interested in presenting the results in a true and fair manner. There is, however, no (perfect) solution as to how to do that. If the behaviour of managers cannot be rectified over the long term through a system of incentives, then the different interests of CEOs should be taken implicit and a solution should be found in adjustment to this set of conditions.

As a consequence of the information asymmetry, beyond the management, not even shareholders or the supervisory authority have a perfect instrument to measure the real need of LLP in order to have the financial statements reflect the real results of the banks. If the information asymmetry provides space for CEOs to adjust results then it can be assumed that in case of the replacement of a CEO, the new CEO's interest would be opposed to maintaining under-provisioning (at first) since starting off with greater provisioning would have several advantages for him. The

longer the period a person holds the function of CEO, the greater interest he has in the upward adjustment of results, and not even the various supervisory and audit functions or supervisory bodies are able to prevent this. Hence, the initial period of the reign of CEOs should be utilised, when they still have an interest in exploring the real situation.

In case of banks, the largest item modifying their result is the LLP, hence it is expedient to carry out its detailed, qualitative as well as quantitative analysis. Over the past 3-4 years, banks went through difficult times. Following the logic of Kanagaretnam et al (2003), my hypothesis is that the results were adjusted upwards via provisions which did not necessarily meant the release of provisions but rather inadequate increase of LLC. Owing to the limited accessibility of data, I examined the impact of changes in the person of CEOs based on the profits of the banks. It can be assumed that during the period of the financial crisis, upon the change in the person of the CEO, the new CEOs adjusted the former upward “beautification” of the results downward – provided that the new CEO was not affected in the decisions made during the earlier periods. The adjustment of the results could apply even to the period prior to the appointment, if the new CEO arrived prior to closing the books of the preceding year.

Based on my research to date, I see the difficulty as well as the importance of the subject matter in the fact that the solution is complex, improved result can be achieved only through the rectification of several sub-issues and that the implementation and continuous application of theoretical solutions constitute a

substantial challenge for the parties concerned. The weakness of a link in the chain could prevent a solution or it could significantly impair its effectiveness.

## **2 THE METHODS APPLIED**

The thesis seeks to answer the question how sustainable long term operation of banks can be achieved taking into consideration the interests of stakeholders other than the owners, such as deposit holders and, in general, taxpayers. The doctoral thesis is based on a deductive research methodology, the analysis of secondary data relying on the findings of international and Hungarian experts and researchers. The areas under study are the management and supervisory bodies of limited liability companies (board of directors, management board, supervisory board, audit committee), and controlling functions and institutions beyond corporate governance (external auditors, internal audit, bank supervisory authority). A number of research programmes have been conducted in this subject matter and I use their findings to present my train of thought.

Research into the subject matter of remuneration at banks differs from the above from several aspects. The principles of remuneration at banks proposed by international organisations (Financial Stability Board – FSB and Committee of European Banking Supervisors – CEBS) are new, and there has not been much research done in this field. The limited availability of data has also rendered research increasingly difficult.

In order to give an overview on the state of the art of the compliance of banking remuneration systems with the FSB and CEBS principles in the region, banks in Hungary, Slovakia, Slovenia, and Romania were contacted and a survey was conducted between April and June 2010, one year after the release of the principles. The banks involved in the survey were members of major banking groups, whose parent banks were encouraged by their national supervisors to apply the FSB principles at group level.

Prior to preparing the questionnaire, I made private in-depth interviews with the human resources and compliance managers of four banks in order to collect qualitative information. The in-depth interview outlines contained pre-determined primary and secondary open questions. The semi-structured nature of the in-depth interviews enabled me to go with the interviewees into the details of the issues related to remuneration. These interviews also enabled me to have a more accurate overview of the remuneration systems of the banks as well as the compilation of a more target-oriented questionnaire.

The discreet nature of the subject matter rendered research into the data increasingly difficult. Nineteen financial institutions in the aforementioned four countries were invited to participate in the compensation surveys, out of which eight, two from each country, accepted the invitation under the condition that their names shall not be quoted in the study. Data were collected with the help of semi-structured questionnaires filled in by the human resource departments of the banks assisted by their

internal audit and compliance departments. To clarify the answers, I conducted a series of supplementary interviews with the HR functions of the banks between July and September 2010. The 54 questions of the questionnaire were grouped according to the following criteria:

- governance aspects of remuneration,
- remuneration of management and employees,
  - performance measurement and assessment,
  - relationship between performance assessment and remuneration,
  - remuneration structure,
- compensation of control functions,
- guaranteed bonuses and severance pay.

When processing the rendered questionnaires, I established that the answers covered the area according to the research concept, thus they were adequate and appropriately structured. 89% of questions in the questionnaire have, with rare exceptions, been answered by all respondents. Questions most commonly skipped were data questions and open text fields. Survey results were supplemented with feedback from a series of interviews with the respondents.

The impact of CEO replacements on the financial results of major Hungarian banks was examined also through the analysis of primary data. My initial objective was to examine the quality of the banks' loan portfolios and the size of the LLP set aside by quality categories. Unfortunately the banks do not disclose

detailed data concerning the quality of their portfolio, and the supervisory authority publishes only sector-level aggregated data. Thus to underpin my assumption, I used the annual results of seven Hungarian large banks and their dynamics in the period between 2006 and 2011.

## **3 RESULTS**

### **3.1 Supervisory and audit functions in and outside the organisation**

The study of the literature led me to the conclusion that over the past decades there was an ongoing research how the efficiency of limited liability companies, more specifically the management and supervisory bodies and internal audit functions of banks could be improved. It can be established that there are still details which can and should be improved, but not even their correction could bring a general solution for optimising the social utility.

Supervisory functions and institutions external to the organisation (statutory auditors, bank supervisory authority) by virtue of their position are (could be) able to enforce the interests of stakeholders other than the shareholders in the course of the operation of the banks. This would, however, require stronger guarantees for the independence of external auditors, which could be provided through the more active participation of the supervisory authorities. Although the situation could definitely improve through this, it is insufficient considering that the real

owner of the information is the management. Therefore they should be made interested to converge towards maximising the social utility in their decision making.

### **3.2 Financial industry compensation systems**

The easiest way to incentivise the managers is through their remunerations, which in turn has to be adjusted with the risks the banks undertake as a consequence to the managers' decisions, as recommended by the supranational institutions such as FSB and CEBS. My survey results showed large incomppliance with the FSB and CEBS principles, which was surprising taking into consideration the promising assumptions of the CEBS Report on national implementation of CEBS High-level principles for Remuneration Policies issued in June 2010, which stated that considerable progress had been made in the field of remuneration by both supervisors and institutions. At this point it has to be underlined that the survey I conducted was responded by only eight banks, therefore far-reaching conclusions cannot be reached, though the negative results may be indicative.

In the surveyed banks board-level oversight of the compensation systems has not been set up. The boards of these institutions only oversee the overall bonus pool sizing and pay for top individuals, but not the compensation systems and did not demand transparency around performance metrics and employee incentives. In all these banks the highest level in the hierarchy involved in the annual compensation setting and periodic reviews

of compensation systems was the level of CEOs and senior management. It is also worth mentioning that only one bank had annual reviews of its compensation policy, while in the others such reviews were not done annually, but mainly if there was a particular need for the revision. At such revisions generally there were not sufficient opportunities for debate and/or involvement of relevant stakeholders (e.g. CFO or CRO). Only one bank had remuneration committee, but not on the board level, but as a subcommittee to the management committee.

Only six of the surveyed banks have management performance measurements, whereof in two cases such performance measurements were the same as for the employees. Only three banks linked the variable compensation of the managers to the results of the performance assessments, while in the other five institutions compensation setting is currently a hierarchical process with significant discretionary aspects. In the former three banks the performance measures were composed of both financial and non-financial criteria, but did not have any long-term adjustments. In these banks performance measures of the control functions were mostly independent of the business units they control. None of the banks had reference in their remuneration policies to ensure that total variable compensation does not limit their ability to strengthen their capital base.

In the surveyed banks bonuses were mainly paid in cash. At the first sight this might not seem to be in compliance with the FSB principles that suggest that substantial portion of variable compensations should be awarded in shares or share-linked

instruments. However, considering that all these banks are either not quoted on the stock exchanges or if they are their shares are not liquid enough to create incentives aligned with long-term value creation, if awarded as bonuses. No remuneration schemes had deferral or claw back arrangements.

In terms of the guaranteed bonuses compliance with the FSB principles was established in case of six banks, while two banks did not disclose data in this respect. All the banks had severance arrangements for their top managers, none of them aligned with long-term value creation or prudent risk taking.

Transparency of the compensation processes is an area which can be improved significantly. All the surveyed banks had minimum disclosure on the aggregate remuneration of their top management without the disclosure of the individual remunerations of directors and other high-end executives. None of the banks disclosed the design characteristics of their compensation systems.

To recap, compensation practices have varying degrees of alignment to the FSB compensation principles, critical gaps exist with respect to the governance issues and the alignment of compensation payouts with risks. Effective implementation will require new governance structures and conceptual change in the risk management. It became evident that in the long run the reform of the financial institutions' remuneration systems – if not combined with other solutions – will not decrease the bank managers' willingness to undertake excessive risks. If even the incentive systems are not effective to channel the managers'

behaviours towards maximising the social utility, the different interest of the managers has to be taken implicit when seeking the solution.

### 3.3 Impact of the changes of CEOs on revealing the hidden losses

From the banks' results cleaned from the effect of the bank levy and extraordinary expenses caused by the early repayments of the FX retail loans, it could be concluded that after 2009 the results of those banks decreased where there had been a change in the CEO.

In the period 2006-2011 the turning point in the upward trend of the bank result was caused by the financial crisis started at the end of 2007. The impact of the crisis was mainly unfolded in 2009 (please refer to table 1), however results of certain banks (Kereskedelmi és Hitelbank, MKB Bank and Raiffeisen Bank) were already impacted in 2008 with continuing trend in 2009.

TABLE 1. CORRECTED RESULTS OF THE HUNGARIAN BIG BANKS, CONSOLIDATED IFRS DATA (IN MILLION HUF)

Bank	2006	2007	2008	2009	2010*	2011**
OTP Bank Nyrt.	187,096	208,548	241,068	150,326	154,126	167,863
Kereskedelmi és Hitelbank Zrt.	13,235	36,547	25,983	10,035	42,249	50,024
Erste Bank Hungary Zrt.	23,266	25,982	32,359	23,611	11,993	-120,403
MKB Bank Zrt.	18,352	16,101	7,160	2,518	-94,205	-81,174
CIB Bank Zrt.	25,353	28,616	28,200	4,661	-10,390	542
Raiffeisen Bank Zrt.	25,296	28,548	14,530	-3,927	5,875	-54,847
UniCredit Bank Hungary Zrt.	19,110	21,944	29,112	15,491	27,715	28,483

\* Results cleaned from the bank levy.

\*\* Result cleaned from the bank levy and extraordinary expenses of early repayments of FX retail loans.

Source: Based on the annual reports of the banks

In 2010-2011 only those banks' results increased where there was no change in the person of the CEO (OTP Bank, Kereskedelmi és Hitelbank and UniCredit Bank), as shown in Figure 1.

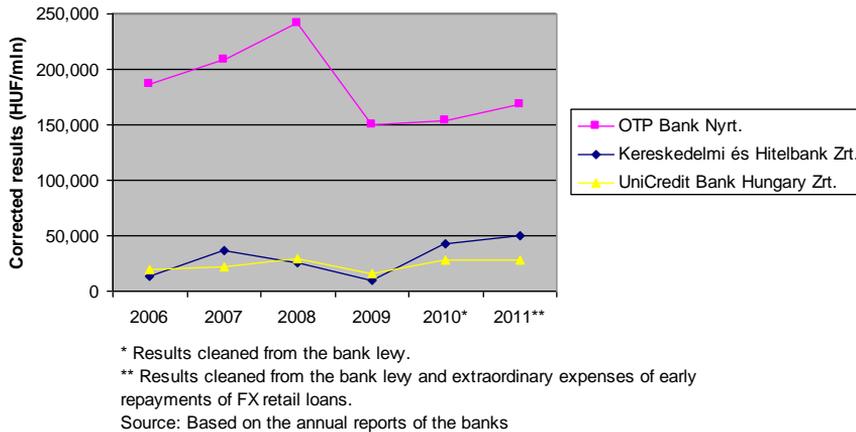
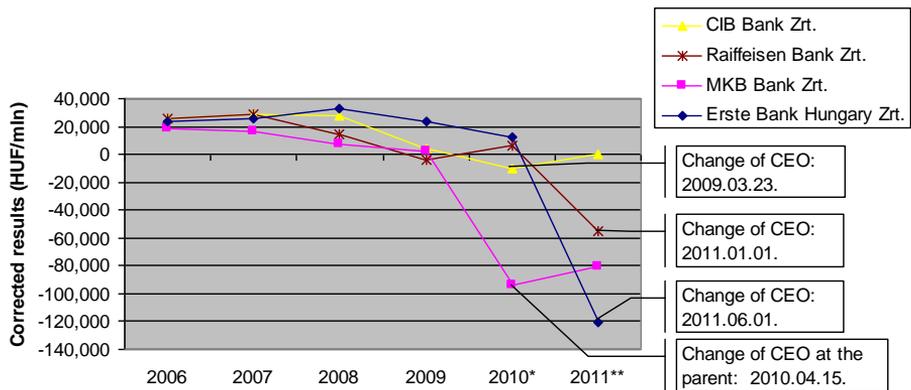


FIGURE 1. CORRECTED 2006-2011 RESULT OF THE BANKS WITH NO CHANGE IN THE PERSON OF THE CEO

In case of other four banks the change of CEOs happened in the following periods: at CIB Bank in March 2009, at Raiffeisen Bank in January 2011, at Erste Bank in June 2011. MKB's situation is particular since at its parent bank there was a change of CEO in April 2010. In case of these banks the downward correction of results was significant in those first one or two years when the new CEO had impact.

The relationship between the dates of the changes of CEOs and the downward correction of results of the four banks is shown in Figure 2.



\* Results cleaned from the bank levy.  
 \*\* Result cleaned from the bank levy and extraordinary expenses of early repayments of FX retail loans.  
 Source: Based on the annual reports of the banks

FIGURE 2. CORRECTED 2006-2011 RESULTS OF THE BANKS WHERE THERE WAS A CHANGE IN THE CEO

After the drop of 2009 results, the downward trend continued in CIB's case also after the appointment of the new CEO in 2010. In case of MKB the downward trend started in 2010, while in case of Erste and Raiffeisen the correction of results was explicitly seen in 2011. The new CEOs were interested in revealing the real situation, creating the necessary provisions omitted in the previous periods and cleaning the portfolio.

### 3.4 The absence of size and activity limits of limited liability companies

Limited liability companies facilitated uniting capital without size limits, while at the same time ownership and management were separated. Inevitably, the duality of the owner and the operator (the management) of capital leads to differences in interests, even conflicts of interests. The board of directors and the supervisory

board attempted to ensure the governance and control of the company with certain successes and some failures. The latter related to control.

This holds also for bank conglomerates, too. By providing commercial and investment banking services at the same time, financial institutions experienced a major increase in trading volumes and as a result of product innovation, banking risks have become increasingly less transparent. In case of troubled banks primarily due to the risks of their investment banking business, state intervention was inevitable in order to prevent the snowball effect. This practically meant that taxpayers were helping out banks that made major profits in earlier times, their shareholders, their management and their clients when they made losses.

The smooth operation of the economy requires accumulation of household and corporate savings, i.e. banks. This works over the long term if the state undertakes to guarantee deposits, particularly retail deposits. To meet this condition, but not to violate the interests of taxpayers in case of a crisis, there must be a strict segregation of commercial and investment banking activities. The state should undertake a full guarantee for the deposits of commercial banks, but the clients of investment banks should not benefit from any state guarantee. The latter, however, must be aware of buying particularly high-risk products which could lead to losses.

If a commercial bank becomes insolvent, the state should buy the bank for a symbolic amount, increase its capital, replace the

management, and under the new management the operating bank could be privatised at a profit within a short period. The interests of the taxpayers would not only remain inviolate, but this solution could even serve their benefit. The losses would be borne by the previous shareholders and the previous managers.

## 4 CONCLUSIONS AND RECOMMENDATIONS

At the beginning of my research, I considered the possibilities of improving the **internal** organisational solutions representing the shareholders (board of directors, supervisory board, audit committee, internal audit function). Many have written a great deal about the inadequate enforcement of shareholder interests and many solutions were recommended, yet it has remained a recurrent problem. My conclusion was that the solution should be sought for elsewhere.

An argument in favour of this is that in case of banks the interests of stakeholders other than the shareholders (deposit holders, but even the taxpayers in general) should also be taken into consideration, striving for the overall social utility. In my search for the solution, I included into my research entities performing **external** control functions (external auditors, bank supervisory authority). It turned out that more extensive guarantees were needed to safeguard the independence of auditors which could be provided through an increasingly active involvement of the supervisory authorities. This solution is necessary but not

sufficient: the real owner of information is the management; all the internal and external supervisory bodies and organisations need to rely on them. So long as management is not in the focus, only a treatment of the symptoms is possible. Management, as the genuine owner of information, should be provided with incentives to aim at converging towards the maximum social utility in their decision making. The obvious mode of incentive is their remuneration.

The reform of the remuneration systems of banks seemed at first capable of bringing closer the interests of managers, shareholders and other stakeholders. Based on the first experiences, however, it should be declared that unless it is coupled with other solutions, it is not going to decrease the willingness of bank managers to assume excessive risks over the long term. Manipulation cannot be excluded primarily because an exceedingly sophisticated system is needed to measure risk-adjusted performance and also because the system of performance measurement is operated by the management. Yet, the initiative should not be discarded. If bonus payments to bank managers are made with a few years' delay, preferably a year or two after the expiry of their mandates, there is a possibility for the new CEO to review the situation and reveal if the performance-based remuneration system or accounting statements had been manipulated.

Having reviewed in detail the institutional solutions controlling the operation of bank managements, primarily that of the CEO, having become acquainted with the changes in the financial results of seven Hungarian banks, I find the introduction of a new

and very simple instrument reasonable: the maximisation of the mandates of CEOs. If the management contract of the CEO is concluded for a predetermined period of time and an extension of the contract is possible only if the person does not exceed the predetermined limit with the reappointment, in other words, the period of a person's executive management function is maximised, there would be less possibility to distort the results of the bank through the under-provisioning of risks. The new CEO will have an interest in quickly revealing and correcting the under-provisioning because failure to do so would impact the results of the forthcoming years, and therefore qualify the work of the new CEO.

Putting things together: if the mandate of the CEOs is maximized and their bonus is deferred to be paid out preferably couple of years after the expiry of their mandate, the new CEO will have a chance to review the situation and reveal if the incentive systems and the accounting records have been manipulated.

Additional research is needed to establish what the optimal time in office of CEOs should be, in how many years their mandates should be maximised and when the new CEO is independent. It is not possible to describe all the criteria of independence but a better approach should be given, which could serve as a starting point for the supervisory authorities.

If not even the maximisation of mandates of CEOs brings solution and the solvency of a bank is put in question, the state should intervene to protect the interests of deposit holders. In order not to

jeopardise the taxpayers' money with such intervention, there must be a strict segregation between commercial and investment banks. The clients of investment banks must be aware of buying particularly high-risk products, while the deposit holders of commercial banks should enjoy full protection of the state. In the event of the insolvency of a bank, the state could buy the bank for a symbolic amount, increase its capital, replace its management, and the operating bank under the new management could shortly be privatised at a profit. The interests of the taxpayers would not only remain inviolate but this solution could even serve their benefit. The losses would be borne by the previous shareholders and the previous managers.

A topical subject matter these days at the level of the European Union is tightening up on supervisory control and the implementation of EU-level regulation and supervision. My findings could be relevant for the supervisory authorities as well as for the legislators who are contemplating amendments to regulations in order to mitigate the impact of a possible future crisis.

## **5 NEW AND NOVEL SCIENTIFIC RESULTS**

Based on my research, the following new and novel scientific results can be formulated:

**Result I: The internal audit function at a subsidiary bank should be accountable to the internal audit function of the**

**parent company, retaining its reporting obligation to the management and supervisory bodies of the subsidiary bank (management board, audit committee, board of directors and supervisory board).**

The study of the relevant literature made it clear that the short-term interests of owners, which go along with a fragmented ownership structure, are to be treated implicit, as well as the fact that there is no perfect system that is capable of making the members of the board of directors, the management board, the supervisory board, and the audit committee interested and empowered enough to perform real supervision of the company. To put it in more accurate scientific jargon: the information asymmetry has continued to exist over the time despite of the introduction of new institutional elements. The opinion of Van Peurseem (2004 and 2005) that internal audit function loses its objectivity vis-à-vis management after a while, coupled with the statements of Hermalin and Weisbach (1998), Hermalin (2005) and Ryan et al (2009), according to which the longer a CEO holds their office, the lower the extent of supervision by the board of directors, which also means impairment of their objectivity, is an exceedingly onerous statement. My recommendation was put forward with the aim to reinforce the objectivity of internal audit. If the internal audit of the subsidiary bank is accountable to the internal audit function of the parent bank, then its work would be assessed and rewarded by the internal audit function of the parent company. If the head of the internal audit function of the parent company appoints and discharges the head of the internal function

of the subsidiary bank, it is less likely that the impairment of the objectivity of the board of directors will lead to the impairment of the objectivity of the subsidiary internal audit as well. I regard this result as novel and important. A limitation on this solution is that it applies only to the level of the subsidiary banks; it would not improve the independence of the internal audit function of the parent company.

**Result II: The supervisory authority should actively monitor the independence of external auditors vis-à-vis their client banks. Should any suspicion arise in relation to their independence, the supervisory authority could withdraw the licence of the auditor concerning the audit of the bank in question.**

My research proved that more extensive guarantees are needed for the independence of auditors which could be provided by the increasingly active participation of the supervisory authority. I regard this result as new and important because if the external auditors not only reported to the bank's management and shareholders, but could also expect the attention of the supervisory authority, they would have bigger interest in maintaining their independence. As a result there could be an improvement in the credibility of the bank's financial statements, which is crucial for the functioning of the money and capital markets. In considering the independence of external auditors, the supervisory authority could also examine their remuneration to exclude the possibility that the banks attempt to win the “forgiveness” of the auditors through “extra” remuneration. The

examination of the supervisory authority could be extended to group level conflict of interest, which could affect the outcome of the audit of the subsidiary bank. The supervisory colleges already existing within the European Union and the envisaged EU banking union could give a feasible framework for such examinations.

**Result III: Not even the more precise and stringent regulations can guarantee the manipulation free performance measurements of the managers and disclosures of true and fair financial information.**

Implementation of performance-based remuneration systems is a big challenge to the banks and their efficient long-term application depends on a number of conditions. As a result of my primary research it became clear that a merely formal change in remuneration systems will not decrease the bank managers' excessive risk appetite. My result is new in a sense that it points out that there is no perfect environment where the financial sector could meet every condition and be capable of addressing the challenges efficiently. Hence a solution for the manipulation-free disclosure of financial results must be sought elsewhere.

**Result IV: The period of the mandates of the CEOs of financial institutions should be maximised. The new CEO must be independent from the decisions of the preceding periods and the previous CEO.**

My research revealed that the longer the period a person holds the function of CEO, the more interested he becomes in the upward

adjustment of results. A phenomenon which could be prevented neither by various supervisory and audit functions nor the supervisory authorities. In the initial phase of their reign, CEOs still have an interest in exploring the genuine situation. This interest could be utilised by limiting the period of the mandate of CEOs excluding the possibility of extension, thus at intervals of known length there would be a change in the person of the CEO. I regard this result as new and important, because this could be the most effective tool for guaranteeing the true and fair content of financial statements. This choreography could be pursued and the positive impact could be increased if, in addition to the CEO, maximised mandates would be mandatory also for the external members of the board of directors, while the principle of rotation would be mandatory for the internal members of the board of directors.

**Result V: A commercial bank cannot go bankrupt without investment banking operations.**

My research revealed that the solution best serving the interests of deposit holders and taxpayers would be if commercial banks were not allowed to perform investment banking activities. Under these conditions, if the supervisory authority finds a commercial bank insolvent, which is confirmed by two independent auditors, the state would have to take action immediately. It is in the fundamental interest of the state to protect and maintain the stability of the financial system, hence taking action is in its interest. The state (a state institution) would buy all the shares of the commercial bank from all its shareholders at a symbolic (close

to zero) price (the shareholders would have an obligation to sell their stakes to the state); the members of the management and supervisory boards (the board of directors), the CEO, the executive officers that are not members of the board of directors, the statutory auditor, the members of the audit committee would be discharged with immediate effect, and new ones would be appointed for a temporary period; the capital of the commercial bank would be increased to the extent needed to exclude insolvency; and what is the most important: there would be a full state guarantee applicable to deposits. The temporarily nationalised commercial bank could then be privatised at a price not lower than the state capital contribution (plus interest). The loss would be borne by the previous shareholders and the managers responsible for the insolvency of the bank, while the state and – with particular emphasis – the bank's clients would not incur losses.

My conclusions can be regarded as novel since according to my knowledge such practice has not been introduced as yet.

## **6 PUBLICATIONS RELATED TO THE THESIS**

### **Papers in English**

**Barabás Tünde** (2011): Financial Industry Compensations: A System That Needs Change. In Gáspár-Vér, K. (ed.): *Financial and Economical Problems in the First Decade of the 21st Century*, Cluj-Napoca, Scientia.

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### **Papers in Hungarian**

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