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**Relationship between Executive
Compensation and Bank Performance of
TARP Recipients**

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Abstract

The objective of this diploma thesis is to examine the relationship between executive compensation and bank performance. We study the executive pay structure of the U.S. largest 100 bank holding companies during period 2002-2009. Our data analysis describes differences between behaviour of TARP recipients and the banks that did not receive state financial help with consideration of financial crisis effect. We use econometric model to test the dependence of bank performance measures and particular elements of executive remuneration – total sum, bonus, stock award and option award. The relationship is generally considered as weak, but we also find linkage between TARP recipients' compensation and Market Capitalisation and on the other hand non-TARP bank appeared to define compensation according to earning per share. A special attention is devoted to executive remuneration structures of TARP recipients with weakest results and their comparison with Dodd-Frank Financial Reform Act and TARP standards.

JEL Classification: G21, G35, G38, K23

Keywords: Executive compensation, bank performance, Troubled Asset Relief Program, performance-related pay, corporate governance, financial crisis, executives

Abstrakt

Cílem této diplomové práce je prozkoumat vztah mezi systémy odměňování výkonných ředitelů a výkonem bank. Použila jsem data 100 největších amerických bankovních holdingových společností za období 2002-2009. Rozbor dat popisuje rozdíly v chování společností, které získaly státní finanční pomoc v době krize z fondu TARP, a společností, které podporu nezískaly, nebo i ni nepožádaly. Použila jsem ekonometrický model, abych otestovala závislost jednotlivých složek kompenzace výkonných ředitelů na výsledcích banky. Tento vztah se obecně ukázal jako slabý, přesto byla vyzorována souvislost mezi výší odměny a tržní kapitalizací u příjemců státní pomoci a souvislost mezi odměnami a výnosem akcií u bank bez státní pomoci. Zvláštní pozornost je věnována strukturám odměn příjemců TARP s nejslabšími výsledky a jejich porovnání s Dodd-Frank finanční reformou a TARP standardy.

JEL klasifikace: G21, G35, G38, K23

Klíčová slova: odměňování výkonných ředitelů, výkonnost bank, fond TARP, finanční krize, řízení společností, výkonný management

Declaration of Authorship

The author hereby declares that she compiled this thesis independently, using only the listed resources and literature.

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In Prague, May 18, 2011

Marta Zamrazilová

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Master Thesis Proposal

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Proposed Topic:

The Relationship between Bank Executive Compensation and Performance in US

Topic Characteristics:

My thesis will examine whether there is any significant relation between CEO's compensation and the bank's overall performance. Chief executive officers (CEO) control enormous human and financial resources, high compensation levels accompanying these responsibilities. Does the heightened attention on risk management affect structure of companies' executive pay policies? Banking institutions face today dynamic and highly competitive environment. Liberalization of domestic regulations in the U.S. and Europe intensified international competition. The added value of my work is a new point of view on executive compensation, on its relation to bank performance and on modern structure of CEOs' performance related pay. Moreover I want to examine the influence of financial crisis on banks' structure of compensation and incentive packages. As a sample will be used financial statements of 30 banks that all have significant shares of the U.S. market for time period 1999-2008. Their annual reports will be used as the major instrument to gather specific information for the last part of analysis.

Hypotheses:

1. There exists strong relationship between executive Compensation and Performance results.
2. The volume of CEO's compensation decreased during the financial crisis in the same scale as the performance.
3. The system of rewarding was limited or transformed after disclosure of main causes of crisis.
4. After the financial crisis a new trend appears – the stronger risk aversion in banking sector.

Methodology:

For performance evaluation I will compare development of return on equity and net profit of the banks. I have three opportunities how measure the performance of the banks. The financial indicators measuring performance could be used Jensen's alpha, Sharpe ratio, Treynor index. The dependent variable will be the natural logarithm of CEO compensation. CEO compensation is difficult to measure consistently, either across banks or over time. Every bank has its specific compensation package. The compensation data are measured by the values of salary, bonus and stock options held by an executive, but nonsalary components often are imperfectly recorded and hard to value so it is not easy to find out the final sum of the pay. I will use salary and bonus, total compensation and total compensation excluding gains associated with stock options. The independent variables will include measures of bank size (computed by natural logarithm of sales), CEO characteristics (for example, tenure, age, gender, education), bank financial performance (for example, return on asset ROA, return on equity ROE, net profit of the bank), industry characteristics, and changes in real compensation levels over time. CEO tenure will be also included as a control variable because a new CEO may have a more aggressive management style than an executive who work for the bank for long time.

Outline:

1. Executive Compensation overview
 - a. Systems of Rewarding
 - b. Used structures of CEOs' performance related pay-public discussion
 - c. Executive compensation as source of financial crisis
2. Relationship between Executive Compensation and Performance
 - a. Description of Data
 - b. Regression model
 - c. Discussion of Result
3. Crisis and system of Executive Compensation
 - a. Comparison of change in volume of CEO's compensation and performance during the financial crisis
 - b. Discussion of Results
 - c. The optimal system of rewarding

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1. Introduction

The financial services sector is probably the most important economic sector in society of the 21st century. This paper examines whether there is any significant relation between executive compensation and the bank's overall performance. A lot of papers were written about this link during last three years and generally the academic evidence described connection between executive pay and performance as weak. Executive officers control enormous human and financial resources, high compensation levels accompanying these responsibilities but also executive salaries should accordingly reflect their contribution to productivity of bank. Are they paid adequately? Are they paid for taking excessive risk? How should banks determine top executive compensation? It is hard to say, if you want to increase value of your company, you have to take some risk.

Financial markets depend on trust. The financial crisis reminded us, that efficient free market needs strict rules and supervision. For easier recovery and restoration of confidence in financial system we have to determine a new regulatory agenda. Does the heightened attention on risk management affect structure of companies' executive pay policies? How much could the executive officer influence level of own remuneration? Compensation structures shape the incentives of those actually making the decisions on behalf of banks, namely bank executives, but the separation of ownership and control in corporations is still a central feature of modern economies say Bebchuk, Spamann (2009).

Above all we need to discover what drives the performance of financial institutions. It is the necessary background and wider context for understanding the system of executive compensation in banking sector. Banking institutions face today dynamic and highly competitive environment. Liberalization of domestic regulations in Europe and U.S. intensified international competition. In 2007, the SEC began requiring companies to disclose detailed information about performance measures and goals related to executive pay programs.

When we study executive compensation structures we have to consider many circumstances: on the one hand bank's best interest, performance goals, risk management, credibility, financial situation of the economy and on the other hand moral hazard of the managers, CEO's power over the board, excessive risk taking. This work studies the system of executive compensation used in U.S. financial sector and tries to discover the role of The Trouble Asset Relief Program. Was the money of American tax payers used well? We describe differences in behaviour of TARP recipients and banks that did not receive governmental funds or did not ask for it. Did the TARP recipients really deserve the government money? Has the "too big to fail" played important role in TARP fund distribution? Besides that we want to examine the influence of financial crisis on banks' structure of compensation and incentive packages. According to the results from our regression we will choose the three bank holding companies that paid their executive officers by highest amount without relation to performance and analyze their particular compensation structures. Based on these results we want to discover whether the systems were too weak or whether the banks have well defined compensation strategy but badly practiced. The added value of our work is a new point of view on executive compensation structures and their development before and during the financial crisis.

Motivation and Hypotheses

About link between performance, compensation and competition was written a lot of studies, but there are still issues that continue to be undisclosed. Our study tries to examine the system of executive compensation used in U.S. financial sector considering TARP recipients practices. We want to describe the relationship between executive compensation and bank performance and discover whether respective how the CEO's compensation changed during the financial crisis.

We choose to study 100 bank holding companies that all have significant shares of the U.S. market. Their annual reports and proxy statements will be used as the major instrument to gather specific information for the last part of analysis. We have limited the study to the period 2002-2009 since this period involves recessions and upgrowths as well as financial crisis. The access to electronically published data is considered as good for these years, data are available at American Securities and Exchange Commission webpage. We will focus on banks that apply performance-related pay system of rewarding. Firstly we need to find the right measure of banks performance. We know that relationship between performance and compensation has been already acknowledged and it will help us with our work. We want to find through econometric regression whether such relationship exists for all banks we choose and that analyze how strong the relationship between performance and executive compensation is. It will tell us if the banks do or do not pay executive officers related to their performance results. If they do not, there exist several possibilities: the CEOs have a position in the bank strong enough to design own compensation packages at one's discretion; or they are paid not accordance with their results but with bank's performance; or the structure of compensation is projected by the bank with regard to its financial situation not related to the executives' performance; or the executive officers are rewarded by time-related pay system. But we need the banks that proved strong relationship between compensation and performance and as such we will use for further analyzes.

Secondly we will test how the TARP recipients and how the non-TARP banks were changing their compensation strategies before and during the crisis. The crisis

was caused by weak financial regulation and supervision aroused a devastating chain-reaction on the whole global market. The major underlying factors were huge cash volume and low interest rates¹. Exceeding expected quarterly earnings became the benchmark for many financial institutions' performance. Risk became mispriced. Few month later the banking sector experienced huge credit crunch, disclosed poor rating performance and bad quality of underlying assets turned into solvency problem of many institutions. The crisis was followed by a big wave of collective redundancies and stoplight for promotion². For major part of our tested group of banks there will be downturn or at least slowing of growth, decrease in profit and performance. We will test how the volume of CEO's compensation decreased in the same scale as the performance or whether there were detected appearances of moral hazard and excessive risk taking and the system of rewarding was limited or transformed.

The added value of our work is therefore closer look on TARP recipients' compensation strategies under the term of financial crisis. Is there some new trend of risk averse in financial sector after the crisis? Do we need modern system of monitoring or regulation of the bank executive compensation? We suppose that if there would be healthy economic environment based on free trade and competition, only natural control relationship among corporate management, boards of directors, and shareholders should be possible. We want to explore whether the banks learned from the crisis and reoptimized their structure of compensation in best to avoid any similar situation in the future.

¹ See Singh (2010): U.S. Sub-Prime Crisis & Its Global Consequences

² See Singh (2010): U.S. Sub-Prime Crisis & Its Global Consequences

2. Literature Overview

A related stream of literature explores the role of executive compensation in present society. The economists focused attention on the foundation of executive performance compensation, relationship between compensation and competition, compensation as reward for hard work, or luck, issue of excessive risk taking. All of these studies will help us to understand the complex system of executive compensation.

It is difficult to distinguish between luck and skill as the primary determinants of performance. Cowell (2002) tested whether an investment manager can achieve a high return through either change or skill. If the result is due to skill, the investor can reasonably conclude that this skill is likely to be repeated in the future, and is therefore worth paying active management fees. Bertrand & Mullainathan (2001) have similar opinion about luck-rewarding. In their work they defined luck as observable shocks to performance beyond the CEO's control. They found that better governed firms pay their executives less for luck. Shareholders optimally vote for compensation measures in order to increase the CEO's incentive to maximize bank value and reduce the moral hazard problem but it is almost impossible because CEOs often own very little of the firms they control. They pointed out that separation of control and ownership leads more effective control over compensation creation process. Well governed firms generally pay less for luck and moreover require their executive to reach stricter targets for the remuneration they were granted.

What drives the performance of the institutions that operate on financial markets? Competitive pressure, that manages the international financial market, is the main reason why banks offer their executive officers highly valued incentives packages. During last 30 years banks shifted from their position of financial intermediaries to retail service providers. Better understanding of performance and its drivers will lead to managerial practices that improve the performance of financial sector. Today's mergers and acquisitions do not necessary add value, but are reactions to competitive threats. Harker & Zenios (2002) defined two sources of performance drivers: Strategy (products quality and diversity, client portfolio, geographical location, distribution

channels, organization form, human resources management, use of technology); and Environment (information availability, consumer taste, regulations).

Boards of directors and senior managers search for the right performance measures in their own interest. Reda et al.(2009) tried to find balance rewards with both financial and operational performance. 70 percent of 200 largest companies changed their executive compensation programs during 2009. They started to move away from short-term incentive plans and to shift to the performance measures tied to long-term goals, so they could profit from capital efficiency. Companies are increasing their emphasis on time-vested restricted stock and restricted stock units. These changes collectively will help the financial institutions to avoid corporate risk, increase corporate performance and better define structure of executive pay.

If we want to truly evaluate system of executive compensation of any financial institution, we need to know the regulatory framework the institution is governed by. Cunat & Guadalupe (2007) focused on effect of deregulation in US. Attenuated regulation increased market product competition and influenced compensation packages. Firms started to offer attractive performance-related pay in order to hire external CEOs with first-rate managerial ability that is transferable across company. Cunat and Guadalupe studied the changes in the structure of the product market and in competition through the overall level of pay and its composition changed over time. Their results showed that total executive pay marginally increases in deregulated financial sector. While fixed pay falls, performance related pay rises and represents a larger fraction of total pay. They found out that the increase in performance-pay sensitivity and the substitution of fixed for variable pay are results of increasing competition.

The worldwide financial crisis has started flaming discussion about executives' excessive risk taking. Is there a reason for government intervention? There is widespread concern that executive compensation flighty manners could have encouraged excessive risk-taking. This thought is fully consistent with the observation that many of them have suffered large losses during the crisis. Bebchuk & Spamann (2009) concentrated on financing structures of modern banks that increased the incentives for executives whose interests are tied to the value of bank's common shares to take excessive risks instead to follow shareholders' interests. As they say, for

banks in general, improvements in corporate governance do not eliminate the need of executive compensation regulation. Regulators should consider regulating remuneration structures in banks to eliminate incentives to take excessive risks but would prudential regulation make it better? It is difficult to find ideal system. Compensation practices have to attract high-potential individuals, motivate and retain current qualified executive officers, nor tempt to excessive risk taking neither prompt to early retirement.

Another serious thing is that executives have power to influence their own pay, and they use that power very well. Bebchuk & Fried (2002) focused on executive compensation bargaining and concluded that the desire to camouflage rent extraction might lead to the use of inefficient pay arrangements that hurt shareholder value. They confirmed that executive compensation is not generally the result of bargaining, but is the product of a process where executive officers are able substantially put through their own interests. Bebchuk & Fried (2002) proposed that executive compensation could be an instrument for combating the agency problem between managers and dispersed shareholders. Their evidence supports the view that managerial power plays a significant role in this process.

It is generally known that greater competition leads to lower profits. But does the level of managerial incentives influence product market competition? Raith (2003) focused on a business stealing effect³ and a scale effect⁴. He found out that changes in market size or the cost of entry lead to stronger managerial incentives if and only if they lead to higher firm-level output in equilibrium.

Compensation should be tied to long term performance; that's the essential idea of most papers written about banking sector in last three years. Bebchuk, Fried (2009) identified an optimal compensation structure as system with limitations on the unwinding of equity incentives. Their analysis focuses on equity-based compensation of top American executives. Concretely they propose firms to induct grant-based and

³ business stealing effect means that firm with a cost advantage can more easily attract consumers from its rivals; see M. Raith (2003): Competition, Risk, and Managerial Incentives

⁴ a firm whose rivals charge lower prices loses market share and therefore has less to gain from reducing its costs; see M. Raith (2003): Competition, Risk, and Managerial Incentives

aggregate limitations on unwinding. Moreover it means also to disable executive officers to use hedging and derivative transactions thereby avoid rewarding executives for short-term gains. The old compensation models provoked top executive officers to boost short-term results at the expense of long-term value⁵. The American governors has urged corporate boards to change their compensation methods, but without any effect. Finally Kenneth Feinberg got the power to set strict compensation rules at least for recipients of financial support from TARP and thereby lay foundations for universal regulatory reform. It initiated federal regulators to issue standards for all financial firms to avoid excessive risks taking.

They call attention to two types of gaming - "springloading" and the manipulation of the stock price. We fully agree with their proposal to limit executives' right to unwind the received equity incentives for a specified period of time after vesting. Moreover after this period it should be permitted to unwind the equity only gradually⁶. They also point out the importance of placing regulations of the use of any hedging or derivative transaction. Executives could use such products not to be touched by any changes in their company's stock price.

Some banks already use certain mechanisms to prevent executives from unwinding equity incentives until their retirement, but Bebchuk, Fried (2009) insist that's not enough. They propose Postretirement holding requirement - to oblige executive officers to hold their shares for one or two years following retirement. Retirement-Based Holding Requirements were already enforced by shareholders activists, but Bebchuk, Fried (2009) argue, that it may also create perverse incentives. It could lead the most successful executive officers to retire earlier, or motivate them to concentrate on short-term results in their last years in the service.

Very strict is their suggestion of "hands-off" arrangement; *"restricted stock and stock options would be cashed out according to a fixed, gradual, and preannounced schedule set when the equity was granted"* Predisclosed gradual schedule would require executive officers to execute all planned trades in any circumstances. Their

⁵ L.A.Bebchuk, J.M. Fried (2004): Pay Without Performance

⁶ The lower-level executives should be exempt from these restriction; employees with responsibility over units whose performance does not have a substantial effect on the firm's stock price.

proposal would *“allow an executive to unload increasing amounts of equity as time passes from the vesting date of a particular equity grant. The executive would be permitted to sell the first twenty percent two years after vesting, forty percent three years after vesting, and the entire amount six years after vesting”*. But stock-price movements and stock performance are usually influenced by many other factors besides the CEO’s own performance.

The most important question is: whether CEOs’ incentives will be improved by requiring them to hold a compensation grant for a longer period of time with exactly defined cashout process; will they make their decisions more carefully? Bebchuk, Fried (2009) say yes – they argue that it will not speed up their retirement and make it less likely that they will focus on short-term targets. Bhagat and Romano (2009) described very simple solution to Excessive Risk-taking by Bank Managers. These authors propose that executive incentive compensation should only consist of restricted equity - restricted stock and restricted stock option.

On the other side performance related-pay incites executive officers to use insider information or tamper with the financial records. Aboody, Kasznik (2000) draw attention specially to backdating. The Sarbanes-Oxley Act of 2002 tighten up the reporting requirements to face the backdating practices, but more than one thousand companies appear to have illegally backdated the grants of managers’ options⁷. Most of option awards are issued “at-the-money”; it means that the strike price is set to the market price on the grant date. So the executive officers can profit from accelerating the release of negative developments or delaying disclosures about positive information. Generally financial institutions are more likely to release bad news, and less likely to release good news, just before options are granted as refer Fried (2008).

Many economists are looking for the sources of recent financial crisis. Bhagat and Bolton (2010) tested which one of Managerial Incentives Hypothesis and the Unforeseen Risk Hypothesis offer better explanation. They concluded that the risk generating crisis could be recognized and that executive compensation incentives bear part of the guilt. On that ground they proposed Capital Requirements Reform with

⁷See Jesse M. Fried (2008): Option Backdating and Its Implications, 65 WASH. & LEE L. REV. 853, 863-64 Executives and also nonexecutive employees were further convicted of a stock option backdating.

Hold post-retirement requirement as fundamental policy. To avoid early retirement they recommend managers be allowed to liquidate annually a small fraction of their stock and option holdings in their bank (5-15%). The 85% of their stock-holdings that they still own will provide incentives to serve shareholder interests for the next several years; annual liquidations be restricted to an amount of \$5 million to \$10 million. They are suggesting a limit of \$2 million on annual cash compensation⁸.

But on the other side are Fahlenbrach and Stulz (2011), who argue, that the poor performance of banks during the crisis was the result of unforeseen risk and support their hypothesis by the Culture of Ownership. *"If CEOs took risks that they knew were not in the interests of their shareholders, we would expect them to have sold shares ahead of the crisis. We find that this did not happen. In fact, CEO holdings of shares on net increased"*.

⁸ In the U.S. about 90% of a bank's capital is debt capital, the larger banks, about 95%; in other industries, banks have one of the highest, if not the highest debt ratio; for the corporate sector as a whole – debt ratio is about 47%. See Bhagat and Bolton (2010): Bank Executive Compensation And Capital Requirements Reform

3. Executive compensation structures

3.1. *The Concept of Performance related-pay*

The systems of executive compensation are designed to reward the achievement of corporate, business and individual performance targets. PRP is scheme for sharing profits and ownership⁹. It involves employees taking more responsibility for key aspects of the production process and market pressure.

Basic principles of executive compensation:

- Compensation shall align with overall Bank performance
- Compensation shall encourage a long-term view to increasing shareholders value
- Compensation shall not encourage excessive or inappropriate risk taking
- Compensation shall be designed to attract, retain and motivate talented executives

Agency paradigm

- Shareholder-management agency problem
- Risk-shifting problem between shareholders and debtholders

We have experienced an enormous growth in the use of performance related pay systems over the past 30 years. There exists wide range of other methods: piecework, payment by results, organisation wide incentives, profit related pay, competence based pay, and merit pay – which evaluate employee's contribution; the predecessor of performance related pay (PRP). PRP systems are based appraisal of an employee's performance against previously set objectives, used since 1980s.

Why is this system of rewarding used? To engage employees with the firm's goals; to motivate to achieve certain targets instead of to focus just on length of service; to give greater power to managers and weaken trade union. Does it support fairness? Or does it undermine teamwork and encourage jealousy? There should be

⁹ See McNabb, Whitfield (2003): Varying Types Of Performance Related Pay And Productivity Performance

involved trade unions to support joint monitoring, appeals procedure, transparency and training for everyone.

McNabb, Whitfield (2003) argue, *“performance related pay schemes that are based on group measures of output are more positively associated with productivity performance than those based on individual measures”*. They proved that relationship between performance related pay schemes and productivity performance is much stronger for group PRP schemes. It means that failure of individual has just little impact on his earnings, because his effort encourages others to maximise their working effort.

PRP initiates an increase of employee involvement in decision-making. It is a response by employers to the principal-agent problem. Monitoring of employees' performance and discipline is very costly. Moreover, it demonstrates lack of trust in firm and can encourage opportunistic behaviour. We can recently see a movement to individual performance, in contrast to the past when the companies were often determine the compensation through company performance. This problem could be mitigated by high trust environment. PRP encourage loyalty, diligence and commitment – the role of peer pressure is very important here. But compensation system that tie pay to individual performance can conflict with other firm's strategies based on team-working. PRP system of rewarding is expected in areas where innovation is the key to market success.

3.2. Executive Position Descriptions

- Chief Executive Officer – Bank's top executive position, responsible for overall management, policies and strategic plans of the bank.
- Chief Financial Officer – responsible for general supervision of the bank's financial plans
- Chief Operating Officer – administers and coordinates the activities of the bank
- Division President – establishes objectives to guide the subsidiary
- Head of Retail Banking – management, supervision and direction of the retail products and services division

- Head of Commercial Banking – management, supervision and direction of commercial lending activities
- Head of Trust Department – coordinates activities and investment of trust
- Head of Lending – ensure maximum overall profitability of bank’s lending activities
- Chief Risk Officer – managing the portfolio risks throughout the institution, approves credit risk, market risk and operational risk
- Head of Human Resources – in charge of salary administration, employee benefits, payroll, EEO compliance, recruitment and training
- Head of Marketing – evaluates the marketing strategy and finds way how to meet changing market and competitive conditions
- Head of Investor Relation – maintains communication between the organisation and its shareholders
- Head of IT systems
- Head of Sales

3.3. Components of Executive Compensation

If a company want to recruit high-qualified management it depends on what they offer - a straight basic salary structure or an incentive-based pay structure will influence best candidates’ decision. Fixed salary reflects the employees’ standard duties of their position and the variable components of compensation package have to cover differences in experience and skill levels.

Each economic area has its own base pay structure, which is mostly determined by level of competition. How many subjects may also provide job opportunities for same employees and what will they offer? Rewarding program should motivate employees to a high performance speed. In the last years the financial institutions get used to annual employee performance review , the employees know , that they will get a salary raises upon these evaluations and it motivates them to perform better in their positions. For this reason, more companies are moving toward an Incentive Compensation programs.

The companies often do not limit the amount of the bonus, in order not to discourage the effort their employees. The long-term incentive compensation is designed in the form of stock options and deferred compensation plans. In addition to regular pay arrangements that include health insurance, vacation, and pension plans, employees seem to be actively seeking companies who offer something more.

3.3.1. The key components of compensation¹⁰

- § Base Salary – As the time goes by salary covers relative small part of total compensation. It is paid in form of cash and rewards the individuals for their responsibilities. The level is based on median value and adjusted by executive's competences. Banks from our data sample changed level of base salary only moderately and some even hold base salary at same level during whole observed period. It is usual that base salary is object of revision once after two-years or growth of salary is specified in contract of employment.
- § Short-Term Incentive Plan – consider annual objectives and motivate executives' performance of short-term level through cash or deferred stock units. The volume of annual bonus increase or decrease on company's performance. These bonuses drew attention to executive officers, became the main topic of public discussion and started seeking for compensation reform.
- § Mid-Term Incentive Plan – encourage the executive officers to manage sustainable shareholder returns over a three-year period. The compensation has form of restricted stock units and increase or decrease according to relative total shareholder return and business performance.
- § Long-Term Incentive Plan – motivate executives to create sustainable growth of share price over ten-year cycle and generate accordant shareholder return. The bonus is paid in form of stock options and increase or decrease based on relative total shareholder return.

¹⁰ Bank for International Settlement (2009): Compensation review, Performance and CEO assessment, www.bis.org

3.3.2. Stock Options

Formerly used only as a tool to retain employees, stock options have a growing role in today's labour market. Stock Options are rights to purchase common shares of the employer's Company and stock of any other class into which such shares may thereafter be changed, means Common Shares. There are three few types of stock options usually used: incentive stock options, employee stock purchase plan options and nonqualified options. *"Employee stock options are contracts that give the employee the right to buy a share of stock at a pre-specified "exercise" price for a pre-specified term. Most employee stock options expire in ten years and are granted with an exercise price equal to the market price on the date of grant¹¹".* Stock Options could be granted alone or in conjunction with Stock Appreciation Rights, Performance Grants or other Award.

Stock appreciation rights (SARs) settled in stock reduce the amount of shares issued from the approved equity plan as compared to stock options and reduce shareholder dilution. The exercise price of SARs is equal to the market price of the shares at the time of the grant. No stock appreciation right may be exercised unless the holder has been employed by the Bank from the date of grant through the date of exercise.

Performance grant (PG) includes certain annual incentive awards and portfolio grants. PG are awards whose final value, if any, is determined by the degree to which performance objectives selected by the Compensation Committee and are achieved during a specified period. Payment under a performance grant may vest over a period of time after the final value is determined. Payment of a performance grant may be made in cash, common shares, other securities issued by the Company.

3.3.3. Retirement benefits

Retirement benefits include Pension Plan and Incentives Savings Plan. Pension Plan has two forms, defined-benefit pension plans and defined-contribution pension plans. In the first case the company set a level of benefit, and contributions based on

¹¹ See Hall, Murphy (2003): The trouble with stock options

current assumptions and so the employee can count what their retirement amount will be and adjust their plans. Defined-contribution pension plans abide by the amount of money contributed to the account. Incentives Savings Plan participants choose to invest their account balances from an array of investment options as selected by plan fiduciaries from time to time. Participants may also choose to invest a portion of their account balances in a Company stock fund Retirement system is one of the best tax shelter available.

3.3.4. Clawbacks

The concept of clawbacks is based on bank's option to claim repayment of all gains allied to certain prohibited ways of employee's behaviour within a prescribed time period. Companies usually require a clawback of all option profits realized within a prescribed time period in the event the employee voluntarily terminates employment and engages in direct competition actions with the company. In some cases the clawback future is extended also on indirect competition, which means abuse of internal information or public detraction of the company, such provision is typically imposed on high level executives¹².

Clawbacks are designed on following intentions:

- prevent an employee to harm the company through direct competition from capturing option gains
- discourage former employee from actions that can damage the company
- enhance the retention power of the option¹³

During the financial crisis the clawback feature increased in popularity. Congress, regulators and investors focused on clawback policies to quiet down a public anger about executive compensation. The Right to request repayment already paid or to cancel an outstanding but unvested future award. Feature of employment

¹² M.L. Davis, J.T. Edge (2004): Executive Compensation: The Professional's Guide to Current Issues & Practices; Windsor Professional Information, LLC

¹³ D.E. Lilienfeld, A.M. O'Connell (2010): Executive compensation clawbacks; New York Law Journal, volume 243 – No. 46

agreement, part of corporate governance guidelines *The 56 from 100 largest companies in the United States disclosed that they had clawback policies in 2009, up from 35 in the year 2007. This represents a 60% increase over two years*¹⁴. Which part of compensation programs are subject of clawback rights – (New York Labour Law) *no employer shall make any deduction from the wages of an employee” and “no employer shall make any charge against wages, or require an employee to make any payment by separate transaction. The legal definition of wages is - earnings of an employee for labour or services rendered, regardless of whether the amount of earnings is determined on a time, piece, commission or other basi*¹⁵s. Deferred compensation is also considered as wage but bonuses based on overall financial performance, unvested stock options and other forms of equity compensation are not.

Section 304 (Sarbanes-Oxley Act 2002) requires clawback provisions to be imposed on chief executive officers and chief financial officers; in case of false financial statements and misconduct by SEC. Clawback policy can also concern named executives or also all executives.

3.3.5. Pay caps

US House of Representatives voted in March 2009 on a proposal to tax year-end bonuses at a rate of 90 per cent. (Extreme cases - Merrill Lynch, AIG) Sarkozy called for an absolute limit on bonus payments. “If you limit pay, there are certain kinds of business you will not be able to do.”¹⁶ Rules for banks using money from TARP demand remuneration schemes and could become US guidelines in the future.

US law makers moved forward on legislation to adopt a UK style “say on pay” rule that provides shareholders right to vote about compensation packages. Current crisis is such a wakeup-call, we are just moving from good, unreachable expectation to bad, but realistic expectation. *Limited purpose banking would turn every financial*

¹⁴ 2009 Trends in the Corporate Governance of the Largest U.S. Public Companies: Director & Executive Compensation, Shearman & Sterling LLP Publication

¹⁵ D.E. Lilienfeld, A.M. O’Connell (2010): Executive compensation clawbacks; New York Law Journal, volume 243 – No. 46

¹⁶ said Alan Johnson for Financial Times, a New York-based compensation consultant (October 23, 2009, The politics of pay, Greg Farrell, www.ft.com)

product into a mutual fund and every limited-liability financial institution into mutual fund provider. One big source of panic will disappear – banning leverage makes it impossible for financial intermediation itself to collapse if a leveraged bubble bursts. It is a serious attempt to seek solution at the required scale¹⁷.

3.3.6. Taxation

Congress is considering a bank tax called The Federal Crisis Responsibility Fee, which should be imposed on all banks and financial institutions with \$50bn. or more in assets (the line will be raise to \$90bn. in the next decade). It covers about 50 institutions; some received only small or no government subsidy during the financial crisis. The US Treasury got for its financial help repayment in form of preferred stock but with terms below market rates, so they were short-changed by billions of dollars in comparison to private investors. In case of Golden Sachs the Treasury received dividends of only 10% on its preferred stock and moreover the bank granted private investors warrants to purchase its common shares equal to 100% of the amount of stock and the Treasury only 15%¹⁸! The Treasury would have to gained profits at least six times higher. Next thing is that FDIC guaranteed all of the principal and interest of more than \$300bn. in bonds sold by most large banks. If the tax was equal to 1% of the total guaranteed amount, the fee would generate revenue of \$6-9bn. to the state over three years. Government officials worked to claw back all bail-out money. Decrease of value of US bank stocks caused \$100bn. loss on state bail-out fund¹⁹. The Federal Insurance Corporation plans to consider banks' pay policies when assessing their contributions to a deposit insurance fund. There should be tax on the amount of that assistance.

¹⁷ L.J. Kotlikoff (2010): Jimmy Steward is dead – Ending the world's ongoing financial plague with limited purpose banking, John Wiley & Sons Inc., Hoboken, New Jersey

¹⁸ R.Pozen (March 24, 2010): How to design a fair bank tax, Financial Times, www.ft.com

¹⁹ F. Guerrero, J. Bear (January 13, 2010): Bankers face political heat over bonuses, Financial Times, www.ft.com

4. Regulation of executive compensation in US

4.1. Legislation before financial crisis

4.1.1. *The Securities and Exchange Act of 1934*

This Act defined as first which information should be disclosed in public. Directors, Officers, Principal Stockholders, every person who was directly or indirectly the beneficial owner of more than 10% of any class of equity security had to fill a statement. The statement had to contain the amount of all securities owned and a list of changes of ownership such purchases and sales of the security-based swap agreements.

4.1.2. *Federal Deposits Insurance Corporation Improvement Act (FDICIA)*

The FDIC Improvement Act from 1991 was based on capital requirements and prompt corrective action. The attention was attached to bank's risk-adjusted capital adequacy ratio and new formula for computing capital adequacy. If the bank was undercapitalized, then the entrusted authority used mandatory and discretionary actions restricting its asset and liabilities. The regulators were allowed to intervene in banking restructuring banks that failed to meet the minimum capital requirements.

4.1.3. *Sarbanes-Oxley Act of 2002 (Title IV. – Enhanced financial disclosure)*

Each financial report that contains financial statements reflected all correcting adjustments that have been identified by a registered public accounting firm are required; plus all material off-balance sheet transactions, arrangements and obligations, including changes in financial conditions as results of operations, liquidity, capital expenditures, capital resources or any other significant components of revenues or expenses. This act also regulate conflict of interest provisions, it forbidden for all issuer directly or indirectly (including through subsidiary) to maintain credit in the form of a personal credit for his directors or executive officers. Disclosures of transactions involving management and principal stockholders – every person who is owner of more than 10% of any class of equity security has to fill a statement for

Commission. Moreover this Act defined a conception of the Ethical Code for senior financial officers, to eliminate the conflicts of interests between personal and professional relationships.

4.2. New Trends in Executive Compensation

4.2.1. Corporate and Financial Institution Compensation Fairness Act of 2009 (H.R. 3269)

H.R.3269 is an Act to amend the Securities and Exchange Act of 1934 to provide shareholders with an advisory vote on executive compensation and to prevent perverse incentives in the compensation practices of financial institutions (H.R.3269, Authenticated U.S. government information). Financial crisis came on with urgent challenges. The New Act requires all companies whose stock is traded on public exchange markets to allow shareholders to vote about the compensation agreements and certain institutional investment managers have to report how they voted. The shareholders will annually approve of Executive Compensation on the basis of disclosed information about compensation rules²⁰ for named executive officers, but the vote shall not be binding on issuer of the board of directors. Furthermore they will also agree the golden parachute practice and other type of compensation related to change of control as the acquisition, merger, consolidation or sale.

This bill established standards to ensure the independence of members of a company's compensation committee and their advisors. Moreover financial institutions are obliged to disclose to federal regulators the structure of compensation agreements that include performance incentives. Implementation of the bill is responsibility of the Securities and Exchange Commission and other federal financial regulatory agencies²¹.

²⁰ Such information includes the compensation committee report, compensation discussion and analysis, the compensation tables and other related materials.

²¹ The Federal Deposit Insurance Corporation, National Credit Union Association, Office of the Comptroller of the Currency, the Office of Thrift Supervision, the Federal Housing Finance Agency and the Federal Reserve.

Each financial institution has to disclose to the appropriate Federal regulator the structures of all incentive-based compensation arrangements. These reporting would determine whether the structure is aligned with sound risk management; meets criteria to reduce risks, that could threaten the safety and soundness of the institution and could have serious effects on economic conditions or financial stability. The Federal regulator shall prohibit any incentive-based arrangement that encourages inappropriate risks.

The subjects are required to establish a Compensation Committee, which is tasked to undertake the Board's responsibility related to the compensation. They review the Annual Statements and Annual Proxy Statement to state whether the compensation practices are in accordance with company's policies and discuss it with management. Then the Committee sets precautions to ensure that the compensation available to the Board, corporate officers and other senior management would attract and retain high-quality leadership. Their advice comprehend general compensation policy, including without limitation²² acceptable ranges of salaries and target rewards under incentive program and the policy on discretionary performance compensation.

As the last direction the bill encharges the Comptroller General of the United States to conduct a study considering compensation structures used by companies during a period 2000-2008 and comparing companies that failed or nearly failed.

Regulatory organisations:

- § Federal Deposit Insurance Corporation (FDIC)
- § Board of Governors of the Federal Reserve System
- § New York State Comptroller
- § Securities and Exchange Commission
- § The US Shadow Financial Regulatory Committee - subordinated debt requirements can discipline a bank's risk appetite. When excessive risk-taking activities are detected, subordinated debtholders can charge high funding costs and provide risk signals to other financial market participants

²² That means annual base salary, annual incentive compensation, long-term incentive compensation, employment, severance and change-in-control agreements and other benefits.

§ Federal Reserve Banks – regulatory institution that monitors bank holding companies (BHC, rating overall health and financial condition - BOPEC)

4.2.2. Government new regulatory strategy

In 2009 the Obama administration has started serious debate about compensation practices across the financial services industry, including institutions that did not receive federal bailout money. They wanted to change the way banks pay employees and executives and find the best practices guide for safety and soundness of financial institutions.

On the other hand the compensation effort is the latest example of the government's increasing focus on financial sector that once were untouched. It is important to say, that Federal regulators have long had the powers to sanction the bank for inappropriate pay structures, but these powers were rarely used. In 2007 the Office of the Comptroller of the Currency has quietly pressed only 15 banks to change their compensation practices.

Argument against pay limits is the possibility of mass get away of employees to avoid the pay caps. Strict rules could push best ones to move to areas of the financial sector that are not regulated; such as hedge funds, private-equity firms and foreign banks.

In February 2009 Obama said, that executive pay helped lead to a reckless culture and a quarter-by-quarter mentality that in turn helped the wreak havoc in our financial system. But it was him who gave the blessing to the financial rescue fund - Troubled Asset Relief Program²³ (TARP). The Treasury completed the plan how to allocate the \$700 billion financial help. If the financial institutions are getting relief, then they have got to abide by certain conditions. In 2009 was issued guidelines limiting salaries for top executives at firms that received money from the Troubled Asset Relief Program. The fund was spent and the government received preferred

²³ The government considered also other options such as a bad bank concept to buy toxic assets from firms; ring fence concept, in which government uses combination of guarantee and insurance to cover bad asset without removing them from balance sheet; or more capital injections.

stock in exchange for its capital. Sen. Claire McCaskill proposed a cap on total compensation of \$400 000 a year on executives, until their employers no longer rely on government aid.

New York State Comptroller Thomas P. DiNapoli supports reforms that require Wall Street bonuses to be tied to long-term performance to keep stability. Wall Street bonuses reached \$20 billion in 2009²⁴, despite record losses \$43 billion in 2008. DiNapoli said: "Taxpayers bailed them out, and now they're back making money while many New York families are still struggling to make ends meet."

Regulatory action against U.S. financial institutions more than doubled in 2009²⁵. The pay cuts gain the most attention, especially after the public indignation caused by extremely high Wall Street bonuses paid during the crisis and at time of high unemployment. Despite that all banks expect near record compensation for last year's performance. Several banks earned huge profits in 2009, aided by billions in federal bailout and a rebounding stock market.

Obama appointed a Special Master for Compensation – Kenneth Feinberg²⁶. He is called The Pay Czar for the Treasury Department and he definitely deserves it. His first move was the drastic compensation slash of the 25 highest paid employees at the firms receiving the most aid. Basic salaries will drop to 90% on average for these firms and total compensation sum will fall about 50%²⁷. Feinberg's major call is for strict corporate governance changes. The position of Chairman and CEO should be split, the boards have to create risk assessment committees, non-transparent director elections must be eliminated.

Regulators shut down 140 banks in 2009, followed by other 42 in March 2010. Feinberg reviewed compensation structures at Goldman Sachs Group, J.P. Morgan Case & Co., Morgan Stanley and 416 other firms using state bailout money, to decide

²⁴ Estimates do not include deferred payments as stock options etc.

²⁵ In 2009 the government issued 1311 regulatory orders against banks, credit unions and thrifts.

²⁶ Man who oversaw the federal government's compensation fund for victims of the Sept. 11, 2001

²⁷ The government even limits executive compensation of AIG financial products unit, firm whose collapse is often considered as one of the major causer (starter) of the global financial crisis. Any bonuses that exceed \$25,000 at this company will have to be approved by Feinberg.

whether compensation paid during the crisis should be returned. *The Pay Czar does not has the power to demand compensation be repaid, but he can seek to use his pulpit renegotiate payments deemed inconsistent with pay rules required by Congress last year or any payments contrary to the public interest.*" (online.wsj.com, *Feinberg to Review Pay at Bailed-Out Firms, March 23, 2010*) The main delinquents based their rewarding systems upon revenue with minimal attention to risk factors. The executives were incited to enter into transactions for short-term profits, even if those actions brought excessive long-term risks for the company. Many banks have lowered pay for top executives²⁸ during the time they received TARP funds and were repaying it. Moreover some of them paid back the financial help in one year .

4.2.3. *Executive Compensation Outlook Report (Equilar)*

Equilar , company offering research services, composed report comparing pay packages across thousands of public companies using SEC and executive survey data. It provides summary of critical issues facing compensation professionals, executives, and boards of Directors in 2010. *"What is clear for all financial institutions today is the need to explore new ideas in current increased regulation and shareholders participation. Today's charged new political climate."*

Some financial institutions started to adjust their compensation policies to get rid all of the negative attention. They started with reinstating base salaries due to the challenging economic situation. Next step was strengthening clawbacks that allow recouping compensation from executive officers due to specifically arising circumstances. Clawback policy is used in branches of business based on guarantees for some expectation of performance, but it is highly controversial. With stock prices extremely moving and uncertain economic recovery there appeared new trend – equity compensation. We can see also a throwback in rewarding policies. Some companies are shifting from performance-based to time-based equity, because of uncertain future the determination of performance goals has become too difficult; some established prolonged option terms to give more time for stock prices to

²⁸ Goldman Sachs didn't pay its top employees a bonus in 2008 and its chief executive experienced pay fall from \$70 million the previous year to \$1,1 million. (online.wsj.com, *Feinberg to Review Pay at Bailed-Out Firms, March 23, 2010*)

increase, which is contrariety to situation in few last years; and others filled restricted shares and restricted stock units into their equity mix.

The linking conception of all new adopted measures is discretion. The companies are using shorter or longer performance periods, adjusted limits, modest targets and relative measure so they can compare performance with similar subjects. Companies always set a pay equation using peer group determination, and now is the choosing a peer firm against which ensure own adequate compensation at a competitive level for talented executives. Very popular new trend include in legislative bills is Say-on-Pay. This practice gives shareholders a right to influence the amount of executive remuneration through voting.

To reduce costs and save money a lot of companies freeze pension plans, eliminate tax gross-ups provided for reimbursement of certain perquisites and change-in-control payments. Banking institutions that received state bailout money have started repaying it to the Troubled Asset Relief Program (TARP) and their executive compensation stay under state regulation until it will be settled. This situation created a new form of rewarding; retention awards²⁹ appeared as consequences-to maintain a strong leadership team.

4.2.4. Executive Pay Trends for 2010

How is the society dealing with the threat of greater government oversight of executive compensation? The Wall Street's representatives talk about plans of major investment bank to pay their people 30% more than last year in salary plus bonus, even banks with deteriorated shares and that have let go many employees. *"Many companies dramatically decreased salaries of rank-and-file employees. That's historically been taboo."* (K. Abosh, 2010) The public opinion that Corporate America's pay practices are out of control has become so intense that government decided to take over the charge of compensation system. The Congress and The Federal Reserve

²⁹ For example the Wells Fargo & Co. guarantees its four main executives – President, Chief Financial Officer, head of Wholesale Banking, head of Home and Consumer Finance – special reward under certain condition. The award should make the executives to stay and provide valuable leadership to the company. The award will be paid after three years of services with respect to specified performance criteria and number of Retention Performance Shares.

plan to restrict pay for all financial institutions to discourage excessive risk taking and request compensation packages details even from banks that did not obtain federal funds.

Some financial institutions started to adjust their compensation policies to get rid all of the negative attention. The criticism usually considers extremely high guaranteed bonuses and executive golden parachutes, but there is no such thing. The vast majority of financial companies do not guarantee any bonuses and tens millions premiums are only a dream. Moreover when there is a change in control, the leaving executives obtain only two or one times their annually salary, instead of three. Some companies even set aside excise gross ups, which compensate executives the taxes they must pay. There are also measures that look very good in papers and quieten the public voices as eliminating perquisites as the personal use of corporate aircraft.

“Bonuses paid in 2009 for 2008 performance were only down by 10%-15% on average. This seems like a small reduction in such bad times, but many companies were not severely affected by the downturn until the last two months of the year, and they still hit their numbers. Bonuses paid in 2008 for 2007 performance were also down, so there is a cumulative reduction of at least 20%. That’s the most dramatic downward shift in executive pay that I’ve seen in the past 25 years” (D. Delves, 2010)

But it is important to say here that the key cause of this situation is the sinking value of companies’ stock and that the cut of incentive grants was not a punishment for irresponsible executives, as the public was calling for. Many organisations are now trying to define new direction for development of corporate governance and principals for executive compensation. The Independent Directors of Executive Compensation Project and the Centre for Executive Compensation (group of senior human resources executives from major corporations) suggested set of measures, that companies can voluntary adopt. But such recommendation about accountability, transparency and fairness would not be enough without reinforcement.

The recession affected salaries of most employees. Before the financial crisis we can see average salary growth about 4% every year. But in 2008 the rate dropped below 3% for the first time ever and in 2009 stopped at 1,8%. *“Three percent is the*

new 4%. Because of the pressure that companies are under to cut costs and base salaries are fixed costs, we do not foresee any recovery back to a 4% environment.”(K. Abosch, 2010)

“We’re seeing record-low budgeting for base salaries and record-high budgeting for bonuses. In 2009 organizations are budgeting 12% of their payrolls for bonuses. That’s the highest percentage in the 33 years that we’ve been recording this data.”(K. Abosch, 2010)

The companies are dealing with financial crisis differently. They have to slow or froze the growth of salaries, in some cases even cut salaries. *“We saw almost half of companies freezing salaries last year (2008), this year (2009) about 13%. But in a normal year we would see less than 1%.” (K. Abosch, 2010)* There is a general shift from fixed costs to variable-since bonuses are not additive costs. Pay system are now based on variable pay as the new pay for performance today. (Abandon base salary increase)

The range for executive short-term incentive pool funding will be broadened to 0%-150% of the target, instead of 70%-130% as it was in 2009. Proportion of deferred compensation increased for executives in higher risk businesses and about 21% of companies reduced the opportunity of promotion. *“64% of the country’s 100 largest companies have implemented “clawback” provisions, requiring executives to return part of their pay under certain conditions. Moreover after the tech meltdown in 2001, CEO pay shrank by 14% in 2002. By contrast, in 2008 CEOs were paid only 8% less than they have been paid in 2007-during much more severe recession.”(D. Delves, 2010)*

4.2.5. What is the Ideal system of rewarding?

Compensation is a strategic driver of performance. Effective rewarding system should include share ownership by executives. We need to find corporate governance mechanism that would control and motivate managers to maximize shareholder wealth.

Executive Compensation programs should be designed to provide a strong positive correlation between the compensation of the Bank’s leaders, its corporate

results and financial return to the shareholders. It encourages executive officers to take significant personal interest in the long-term health and growth of the organisation.

We need to pay attention more to accounting, accounting manipulations are used to sustain stable dividend payments. Still the same corporate governance problems – we especially watch the managers, chief executives and boards of directors. But that are accountants, lawyers and investment analysis (policymakers and regulators) who are out of control.

Compensation contracts reflect the effectiveness of corporate governance mechanism. US systems of rewarding are generally based on short-run management style. CEOs are rewarded for bank's performance measures as accounting earnings and stock returns. How could the compensation be tied to longer-term performance and discourage risky practices? Managers are never motivated as is intended.

5. Methodology

5.1. Sample Selection

I chose 100 biggest American bank holding companies, banks that have significant shares of the U.S. market and played an important role in the financial crisis during 2008. I used performance information from The Bankscope Database, which gathers banks' financial statements data. Firstly I sorted out an initial list of 200 American banks according to their country rank and then choose 100 banks that provided satisfying range of executive compensation data on the U.S. *Securities and Exchange Commission's* webpage. Table 5.1.1 provides summary statistics for my sample of banks and shows that the study covers very large financial institutions.

The sample contains 55 recipients of the Trouble Asset Relief Program funds. Table 5.1.2. provides list of TARP recipients with specific amount that they have obtain from the government fund and how much for that amount has been repaid. I also included few banks that changed their structure or went bankrupt during the given period. Ally Financial Incorporated became the General Motors Acceptance Corporation in 2005. In 2006 The Bank of New York and Mellon Financial Corporation merged together. The Freddie Mac-The Federal Home Loan Mortgage Corporation get under The FHFA Federal Housing Finance Agency in September 2008. Lehman Brothers Holdings Incorporated went bankrupt in 2008 and was taken over by the Barclays and the Neuberger Berman. The Wachovia Corporation merged with The Wells Fargo Company in the end of 2008. The National City Corporation was purchased by the PNC Financial Services in October 2008. The IndyMac Bancorp Incorporated became the fourth largest bank failure in the USA in 2008.

The first sample included all 100 banks and I used it for regression to obtain a general look of relationship between executive compensation and performance. For the further analyses I divided the banks into two groups – the TARP Recipients (denoted by TARP 1) and banks that did not used financial help from the government (denoted by TARP 0). Table 2 provides list of TARP recipients used in my study. Last I

focused on the time differences so the data were placed in two samples. The first comparative sample contained data covering the period 2002-2005 and the second comparative sample considered the crisis period 2006-2009.

5.2. Data

The executive compensation data are available through from banks' Proxy Statements published on the U.S. *Securities and Exchange Commission's* webpage. The proxy statement offers very specific information about 5 highest executive officers' pay structure. The year sum and its components - salary, bonus, stock awards, option awards, non equity compensation, change in pension and other compensation.

All other bank performance variables and stock data come from the Bankscope Database. The Bankscope provides data from all 100 banks during the whole period 2002-2009. Some banks do not publish values of all chosen variables, but the sample is still big enough to grant valuable results.

The only problem was inconsistent structure of summary compensation tables. During period 2002-2005 the companies used model with three main sections – Annual Compensation, Long-Term Compensation and other compensation. The bigger financial institutions divided the annual part between salary, bonus and other annual compensation; and Long-Term Compensation was represented by Awards and Payouts. Restricted Stock Award and Securities Underlying Option fell into the Awards and LTIP (Long-term Incentive Plan) compensation into Payouts. But smaller companies simplified their models and distinguished only Option Award as Long-term Compensation from the Annual Compensation (Salary + Bonus).

5.3. Variables

The general (head) variable used in this study is Executive team Compensation (ETC). This variable represents a year executive pay, equal to the total sum of 5 top executive officers' year compensation. In the regression ETC would be represented by a variable SUM, which is equal total year compensation, and in further analyses I will

use in its place particular elements of executive pay, it means variables salary, bonus, stock award, option award or non equity award.

$$\text{SUM} = \text{SALARY} + \text{BONUS} + \text{STOCK} + \text{OPTION} + \text{NON EQUITY} + \text{PENSION} + \text{OTHER}$$

I consider Salary and Bonus from compensation data to represent cash compensation, and Stock, Option and Non Equity as non-cash compensation, expecting diverse results in the regression. A lot of banks do not have complete data on Change in Pension, so this variable would not be used in regression separately.

We choose following variables for measuring the banks' performance. To understand how well a bank is doing, we need to start by looking at a bank's annual income statement.

For our model were used these variables³⁰ - Assets (denoted A), Equity (E), Net Income (NI) and Market Capitalisation (MC). Volume of assets or resources includes cash, loans, securities and property. Banks usually use this measure to set up a peer group, whose results are considered by defying executive compensation. The Equity means generally assets minus debt, but we can consider it also as volume of common stock. Net income represents company's net revenues and the bank holding companies often use it as performance target for their executive officers. Market Capitalisation measures size of a business enterprise, in this case the total value of the shares of a bank, and is equal to the share price times the number of shares outstanding. From the wide range of profitability ratios I used the fundamental ones for describing a banking sector – Return on Average Assets (ROAA), Return on Average Equity (ROAE) and Net Interest Margin (NIM). Return on average asset is a measure of profits relative to size,

³⁰ We chose same variable as were used in related literature; Balachandran, Kogut, Harnal, (2010) connection between The Probability of Default, Excessive Risk, and Executive Compensation through total assets, ROA, ROE and net income; ROA, ROE and price/earnings ratio were used by Fahlenbrach, Stulz (2009) who focused on Bank CEO Incentives and the Credit Crisis; Sloan (1992) chose earnings per share resp. Price/earnings ratio to describe link between accounting earnings and executive compensation; and Hubbard, Palia (1994) considered equity, performance and size in their work Executive pay and performance: Evidence from the U.S. banking industry. According to this work we use market capitalisation and then stock price and dividend per share to compute shareholders return.

Return on Average Equity measures efficiency at generating profits from shareholders' equity and Net Interest Margin examines how successful a bank's investment decisions are compared to its debt.

$$\text{Net Interest Margin} = \frac{\text{Investment Returns} - \text{Interest Expenses}}{\text{Average Earnings Assets}}$$

As stock return performance measures or measures considering shareholders' interests were used Earnings per Share (EpS) and Shareholder Return (SR), the return realized by the bank's common shareholders.

$$\text{Shareholder Return} = \frac{\text{Market Price}(t) + \text{Dividend per Share}(t)}{\text{Market Price}(t - 1)} - 1$$

5.4. Econometric Model

I examined the relationship between executive compensation and bank performance. Because panel data have both cross-sectional and time series dimensions, the application of regression models to fit econometric models are more complex. Dataset is organised as panel data, with stacked cross sections (100 cross sectional units), covering 8 time series. Dependent variable is executive pay, the Executive team Compensation and as independent variables are used Assets, Return on Average Assets, Return on Average Equity, Net Interest Margin, Market Capitalisation, Net Income and Shareholder Return.

For regression is chosen Generalised Least Square model, with fixed effects³¹, because of character of compensation data and its panel structure. In beginning we

³¹ We chose to use GLS model with fixed effects because of the character of dataset. The compensation data pooled from proxy statements were computed on the grounds of long-term goals. The banks usually defined targets for one, two, three and four years' performance cycles and during the observed period the targets generally stayed the same, only form of compensation changed. It means that for example bonus was paid according to reaching same goal (12% growth of Earnings per Share), but one year was paid out only in cash and next year part was paid out in cash and part in other instruments, so we test the join significance of performance measures during the period 2002-2009. See Using, Jeffrey

used equation with all variables³², but to obtain valuable results we have to recognize which are important for our model and which of them could be omitted.

$$\ln(\text{ETC}) = \text{const} + \beta_1 \ln(\text{A}) + \beta_2 \text{ROAA} + \beta_3 \text{ROAE} + \beta_4 \text{NIM} + \beta_5 \ln(\text{MC}) + \beta_6 \ln(\text{NI}) + \beta_7 \text{SR}$$

M. Wooldridge (2002): *Econometric Analysis of Cross Section and Panel Data, Fixed Effects Estimation for Policy Analysis*.

³² The regression equation is inspired by Mathiesen, H (2001), *Statistical model: Determinants of executive compensation in listed US firms*; whose website (<http://www.encycogov.com/A5OwnershipStructures.asp>) catalogs approximately 100 academic studies on the topic published up through 1999.

6. Compensation data analyses

6.1. Analysis of the Full Sample

Before the regression I would like to examine the data to offer an insight into the executive compensation structure and its development through time. It is important to mention that during 2002 and 2003 the companies did not publish Change in Pension as separate part of Executive Compensation. Since 2004 some banks filled Change in Pension in their executive pay tables, but still every bank has its own systems and until 2006 there wasn't standard structure of summary executive compensation table.

First results were obtained from the wider data sample. We observe all 100 financial holding companies, where every company is represented by its top 5 executive officers and the data cover the time period 2002-2009. The Table 6.1.1 shows the decomposition of total pay for median executive officers (describes the structure of executive compensation). We see that since 2002 the bonus is the biggest part of the pay, the mean value is 36,25% of total compensation, followed by stock 24,35% and salary 19,44%. Option and Non equity was not yet widely used separately; respectively some banks filled these components into the bonus, stock award or other compensation. In the Table Option award represent 7,10% of total pay and Non Equity 5,81%.

Table 6.1.2 illustrates the development of average values of compensation and its various parts during the time. The median executive officer gained \$2,087,216 in the 2002, from that \$1,162,300 in cash (\$405,786 Salary and \$756,514 in Bonus) and \$777,796 in non-cash compensation (\$508,330 in Stock Award, \$148,154 Option Award and \$121,311 in LTIP). We see, that the total compensation sum did raised up more than twice during the tracking period and fell down back almost on the same value at the end of the period. Salary has stable growth. On the other hand dramatic movements are observed by bonus, stock awards, option awards and also by non-equity awards. Bonus doubled during first four years and reached its peak \$1,328,940 in 2005. Stock awards experienced the biggest shift, in 2006 reached \$1,545,856 more

than triple of its initial level in 2002. The option award grew systematically until 2006 when its value jumped from \$217,206 to \$674,747 and took the leading post for the next two years. But in 2009 drastically fell to the ground on \$335,594. Non-Equity Incentive Plan Compensation experienced the same jump in 2006, from \$242,513 to \$663,873, but then started slowly decreasing.

Table 6.1.2 demonstrates which compensation elements are rigid and which are adaptable. It is evident that salary growth stable without any adjustment to economic situation. This part of executive pay should be considered as given in advance, the salary growth is usually defined in employment agreements under invariable conditions. At the other side the final compensation sum could be modified by the other awards. The bonus and the Stock Award are evidently the most creative elements in the compensation structure.

Table 6.1.3 provides means values of executive compensation during the period 2002-2009. We see different trends by the average values and the mean values. The level of total sum is double here compared to average values of compensation in Table 6.1.2, but the movement is very similar. It reached the top in 2006 and 2007 and then fell down, in 2006 the mean value was \$8,483,426, but on the other side the average value was only \$4,766,150. The mean values of salary achieved only half level of average values during whole observed period. In this case the trend is different. Salary went up during the period 2002-2004 and then fluctuated around lower levels. The Table 6.1.1 evidences that the majority of CEO compensation stems from performance-based pay, as the average salary is around 15%³³ of the average total compensation and average bonus (resp. average stock award) is around 30%. But we have different results in Table 6.1.2. Here the median salary represents around 40% of total compensation. There are no continuous movements of the bonus, stock award and option award. These elements just appropriately framed the ending values of total compensation. The Fact that results from Table 6.1.3 are much higher than from Table 6.1.2 pointed out that the sample consists of more banks with higher executive

³³ In 2006 the average salary was only 9,62% of the average total compensation. Fahlenbrach and Stulz (2009) constructed similar observation; their sample consisted of compensation for 95 bank holding companies in 2006. In that study, they find that the average base salary is 760,000 and represents less than 10% of the average total compensation.

compensation than is average and contains some banks with extremely low executive pay that push the average results down.

Basic forms of particular compensation components according to financial statements of the bank holding companies:

Bonus – The amounts in this column reflect cash payments made for annual performance under own Pay-for-Performance Program. The individual performance of the Chief Executive Officer is determined by the Compensation Committee. The minimum guaranteed bonuses for the Chief Executive Officer are established in their employment agreements.

Stock Awards – The restricted stock belong under the Long Term Incentive Compensation. Stock awards are usually granted with an aggregate value.

Option Awards – This award has very strictly defined properties - the number of shares of common stock underlying; the percentage that such options represent of all options granted to employees during the year; the exercise price; the expiration date; the hypothetical present value. All formulated under the option pricing model. The basic assumptions are made concerning variables such as expected option term, risk-free interest rate, stock price volatility and future dividend yield. The option awards are generally granted at an exercise price equal to the market price on the date of grant.

Non-Equity (LTIP) – The performance based restricted stock and performance shares could be usually vested two or three years from the date of grant to the extent that the performance goals set are met. The performance goals consist of three financial criteria or performance factors. The factors are earnings per share, economic profit added, and return on equity. Each factor has a defined cumulative three-year goal for threshold, target and maximum performance. Moreover some banks have never granted stock appreciation rights under the Long-Term Incentive Plan.

Other Compensation – The last component of executive pay includes the dollar value of employer matching, profit sharing, and stock discount contributions to the bank. Banks usually place here Tax Payments, Executive Life Insurance, Security, Dividends

and other Personal Benefits - it means Travel Benefit, Use of Company Aircraft, Business trip expenses, International Assignment or Club Membership.

Table 6.1.1: Structure of executive compensation – The Full Sample

The Table shows summary statistics for compensation components for a sample of 100 bank holding companies. Every company is represented by its 5 top executive officers. The Table specifies the percentage of various components in the total compensation sum during period 2002-2009. Percentages are computed as mean value of all executive officers' pay.

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other
2002	19,44%	36,25%	24,35%	7,10%	5,81%	NA	7,05%
2003	14,58%	33,89%	27,41%	7,76%	10,66%	NA	5,60%
2004	14,64%	36,99%	31,28%	6,99%	3,73%	NA*	6,24%
2005	12,60%	35,45%	34,08%	5,79%	6,47%	NA*	5,50%
2006	9,62%	18,44%	32,43%	14,16%	13,93%	6,35%	5,07%
2007	11,21%	15,84%	31,15%	17,01%	10,07%	5,71%	9,01%
2008	15,48%	5,51%	33,92%	23,35%	5,38%	8,50%	7,86%
2009	21,15%	10,90%	32,86%	12,67%	8,38%	9,10%	4,93%

* The data about Change in Pension already exists for the fiscal years 2004 and 2005, but only few companies write out this component separately in their executive compensation summary tables. Only 9 banks from 100 in 2004 and 13 banks in 2005 published already the Change in Pension. So the outcome are omitted, conclusions would not be credible.

Table 6.1.2: Average executive compensation – The Full Sample

The Table shows summary statistics for compensation components for a sample of 100 bank holding companies. It displays average levels of particular elements of executive compensation during period 2002-2009.

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other	Total
2002	405786	756514	508330	148154	121311	NA	147121	2087216
2003	422607	982590	794571	224866	309169	NA	162333	2898998
2004	453684	1146297	969290	216603	115578	NA*	193495	3099228
2005	472267	1328940	1277476	217206	242513	NA*	206284	3748281
2006	458501	878773	1545856	674747	663873	302755	241645	4766150
2007	473101	668360	1314704	717630	424783	241174	380333	4220085
2008	479967	170995	1051896	724157	166756	263773	243880	3101424
2009	560248	288698	870431	335594	221871	241101	130692	2648635

* The data about Change in Pension already exists for the fiscal years 2004 and 2005, but only few companies write out this component separately in their executive compensation summary tables. Only 9 banks from 100 in 2004 and 13 banks in 2005 published already the Change in Pension. So the outcome are omitted, conclusions would not be credible.

Table 6.1.3: Median executive compensation – the Full Sample

The table shows summary statistics for key compensation variables for a sample of 100 bank holding companies for the period 2002-2009. We see here median values of executive compensation, separately for each pay elements.

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other	Total
2002	1897539	1587220	1756218	417864	0	0	0	4920422
2003	1670784	418575	68348	55000	0	302500	574478	3089686
2004	2841303	3056543	0	475203	1309931	0	361022	8044002
2005	2490000	1983900	3111160	80000	0	0	64626	7729686
2006	2296500	1471156	180095	2970167	962358	22392	580757	8483426
2007	2175193	175000	1968214	0	1601000	0	2600921	8520328
2008	2512929	795000	2912130	432113	480860	115846	303104	7551982
2009	2399071	1200	504236	183600	1155000	1353091	1020234	6616432

6.2. Comparison of TARP recipients and Non-TARP banks

The next set of statistics compares executive compensation structure of TARP recipients and bank holding companies that did not take advantage of TARP funds. Table 6.2.1 and Table 6.2.4 show the decomposition of executive pay and describe its development through time. The most significant fraction of annual compensation represented bonus in both groups in the end of 2002 (TARP 39,77%; non-TARP 30,71%) and in stock award in 2009 (TARP 36,55%; non-TARP 24,85%). In case of non-TARP banks the bonus percentage grew up in years 2004, 2005, apart from that the bonus has been falling down, for TARP recipients during whole period. It was result of Stock award becoming stronger and followed by option award and non-equity award. In this time non-cash compensation got very popular in financial sector. Banks started to use stock and option awards instead of cash compensation, because it is easier to control the behaviour of CEOs, to reward them for well done job or to cut the pay for a poor performance without any need for a new employment agreement. Moreover many financial institutions established stock ownership plans for their executives, so that the executive officers are not free to sell their entire stake. These target plans typically allow the COE sell only gradually (specific portion a year) and require them to hold three to five times³⁴ base salary in stock.

Year 2008 brought the biggest inconsistency in this way. The TARP recipients received 37,68% of pay in Stock Award, 26,51% in Option Award and only 13,46% in Salary. On the other hand non-TARP banks obtained 23,96% in Stock Award, 14,98% in Option Award and 20,81% in Salary. Table 6.2.2 and Table 6.2.5 show the average executive compensation for these two groups. During the whole period the TARP recipients reached higher compensation levels. It is caused by fact that in general the biggest bank holding companies (according to volume of assets) belong to the first³⁵

³⁴ See Core, John E., and David F. Larcker (2002): Performance consequences of mandatory increases in executive stock ownership; *Journal of Financial Economics* 64, 317-340. They remarked this trend already in dataset from 1992-1996.

³⁵ The Troubled Asset Relief Program is often criticized for using billions of dollars in taxpayer money to save preferentially major financial institutions and so supporting the phenomenon "Too big to fail". Very large financial companies may rationally decide to take higher risks because they expect government to save them and taxpayers will bear the loss. Mar, 2011 www.reuters.com

clients of TARP. When we look at the numbers, it is clear, that TARP recipients pay holds above the average compensation level during whole period. As we see from Table 6.2.1 and Table 6.2.5 both groups reached their bonus maximum in 2005, TARP recipients \$1,331,316, non-TARP banks \$1,289,418. In 2006 bonus compensation started to fall down but other pay elements, especially Stock Award and Option Award, went up and attained the highest level. TARP recipients got paid \$1,636,932 in Stock Award, \$967,052 in Option Award and total compensation sum climbed up to \$5,355,049. Non-TARP companies obtained \$1,434,081 in Stock Award, \$316,007 in Option Award and as a whole got \$4,043,409. The changes during 2007 and 2008 are interesting; in this time started a storm around executive compensation in the financial sector and the banks had to react. In case of TARP recipients the levels of compensation decreased, in the first place they dropped down the bonuses, from \$963,207 in 2007 to \$191,437, because it was the main object of public discussion. But the Stock Award declined only from \$1,466,410 to \$1,399,882 and moreover Option Award slightly increased from \$954,237 to \$984,971. The total executive compensation fell from \$4,806,832 to \$3,715,128. The group of non-TARP banks experienced substantial decline in all elements of executive pay; Bonus fell from \$298,117 to \$139,570, Stock Award dropped from \$1,124,205 to extremely low level of \$516,991 and Option Award from \$420,518 to \$323,246. The total executive compensation brought down from \$3,483,301 to \$2,158,072.

It is obvious, from Table 6.2.3 and Table 6.2.6 that there are significant differences in non-TARP banks behaviour and TARP recipients' manners. The results point out TARP recipients' gradual increase of executive compensation before the crisis. During 2002-2006 these banks paid out higher and higher amounts in bonus, stock award and option award and total sum naturally. We see fast movements in executive pay during good times, but when the crisis occurred, their reacted slowly. The global financial crisis really started to show its effects in the middle of 2007 and continued 2008. Both bank executive officers and their shareholders experienced negative returns during this time. But in case of non-TARP banks we observe different reaction. During the first half of observed period they used to advance executive remuneration more carefully and when the crisis started to spread, the non-TARP

banks cut down certain elements of compensation very quickly. Executive officers with greater incentive alignment would therefore be expected to take different risks from those with weaker incentive alignment. In next section we test the relationship between compensation and performance to find out, whether TARP recipients remunerated their executive officers according to bank performance results.

Table 6.2.1: TARP 1 – Structure of executive compensation of TARP recipients

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other
2002	20,11%	39,77%	24,59%	5,01%	6,03%	NA	4,49%
2003	15,31%	37,25%	29,67%	8,95%	5,24%	NA	3,58%
2004	14,76%	38,78%	31,33%	8,83%	2,25%	NA*	3,99%
2005	12,46%	35,12%	34,73%	6,49%	7,23%	NA*	3,95%
2006	9,03%	19,88%	30,57%	18,06%	11,93%	6,67	3,86%
2007	10,27%	20,04%	30,51%	19,85%	8,30%	5,74	5,29%
2008	13,46%	5,15%	37,68%	26,51%	3,18%	7,72	6,29%
2009	20,79%	10,54%	36,55%	13,52%	7,10%	8,12	3,38%

The Table shows summary statistics for compensation components for a sample of 55 TARP recipients. Every company is represented by its 5 top executive officers. The Table specifies the percentage of various components in the total compensation sum during period 2002-2009. Percentages are computed as mean value of all executive officers' pay.

* The data about Change in Pension already exists for the fiscal years 2004 and 2005, but only few companies write out this component separately in their executive compensation summary tables. So the outcome are omitted from our analyses, conclusions would not be credible.

Table 6.2.2: TARP 1 – Average executive compensation of TARP recipients

The Table shows summary statistics for compensation components for a sample of 55 TARP recipients. It displays average levels of particular elements of executive compensation during period 2002-2009.

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other	Total
2002	411368	813437	502876	102439	123355	NA	91788	2045263
2003	431124	1048888	835549	252080	147538	NA	100818	2815997
2004	463657	1217879	984096	277433	70620	NA*	125343	3140584
2005	472510	1331316	1316638	245987	273933	NA*	149661	3790822
2006	483642	1064325	1636932	967052	639032	357425	206642	5355050
2007	493657	963208	1466411	954238	399199	276045	254076	4806833
2008	500024	191438	1399882	984972	118300	286790	233723	3715128
2009	623746	316309	1096447	405466	212924	243542	101501	2999935

* The data about Change in Pension already exists for the fiscal years 2004 and 2005, but only few companies write out this component separately in their executive compensation summary tables. So the outcome are omitted from our analyses, conclusions would not be credible.

Table 6.2.3: TARP 1 – Percentage changes in executive pay of TARP recipients

The table shows summary statistics for key compensation variables for a sample of 55 TARP recipients for the period 2002-2009. We see here percentage changes of compensation between years.

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other	Total
2002	NA	NA	NA	NA	NA	NA	NA	NA
2003	4,80%	28,95%	66,15%	146,08%	19,60%	NA	9,84%	37,68%
2004	7,55%	16,11%	17,78%	10,06%	- 52,13%	NA	24,33%	11,53%
2005	1,91%	9,31%	33,79%	-11,33%	287,89%	NA	19,40%	20,70%
2006	2,36%	- 20,05%	24,33%	293,13%	133,28%	NA	38,07%	41,26%
2007	2,07%	- 9,50%	- 10,42%	- 1,33%	- 37,53%	-22,77%	22,95%	- 10,24%
2008	1,29%	- 80,12%	- 4,54%	3,22%	- 70,37%	3,89%	- 8,01%	- 22,71%
2009	24,74%	65,23%	- 21,68%	- 58,83%	79,99%	- 15,08%	- 56,57%	- 19,25%

Table 6.2.4.: TARP 0 – Structure of executive compensation of non-TARP banks

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other
2002	18,39%	30,71%	23,99%	10,38%	5,47%	NA	11,07%
2003	13,57%	29,28%	24,29%	6,11%	18,13%	NA	8,38%
2004	14,45%	34,31%	31,19%	4,23%	5,94%	NA	9,61%
2005	12,80%	35,96%	33,09%	4,74%	5,32%	NA	7,86%
2006	10,58%	16,10%	35,47%	7,82%	17,17%	5,83%	7,04%
2007	12,84%	8,56%	32,27%	12,07%	13,12%	5,67%	15,47%
2008	20,81%	6,47%	23,96%	14,98%	11,18%	10,58%	12,02%
2009	21,94%	11,67%	24,85%	10,83%	11,16%	11,24%	8,30%

The Table shows summary statistics for compensation components for a sample of 45 TARP recipients. Every company is represented by its 5 top executive officers. The Table specifies the percentage of various components in the total compensation sum during period 2002-2009. Percentages are computed as mean value of all executive officers' pay.

Table 6.2.5: TARP 0 – Average executive compensation

The Table shows summary statistics for compensation components for a sample of 45 TARP recipients. It displays average levels of particular elements of executive compensation during period 2002-2009.

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other	Total
2002	396542	662260	517362	223850	117928	NA	238744	2156685
2003	407685	879612	729853	183614	544768	NA	251745	3004325
2004	439254	1042722	947867	128586	180629	NA*	292105	3039389
2005	459085	1289418	1186573	170010	190842	NA*	281919	3585388
2006	427646	651050	1434082	316008	694360	235661	284603	4043410
2007	447288	298118	1124205	420519	456910	197385	538875	3483301
2008	449137	139571	516991	323246	241241	228393	259494	2158072
2009	463134	246469	524758	228730	235556	237368	175338	2111353

* The data about Change in Pension already exists for the fiscal years 2004 and 2005, but only few companies write out this component separately in their executive compensation summary tables. So the outcome are omitted from our analyses, conclusions would not be credible.

Table 6.2.6: TARP 0 – Percentage changes in executive pay

The table shows summary statistics for key compensation variables for a sample of 45 TARP recipients for the period 2002-2009. We see here percentage changes of compensation between years.

Year	Salary	Bonus	Stock	Option	Non Equity	Pension	Other	Total
2002	NA	NA	NA	NA	NA	NA	NA	NA
2003	2,81%	32,82%	41,07%	-17,97%	361,95%	NA	5,45%	39,30%
2004	7,74%	18,54%	29,87%	-29,97%	-66,84%	NA	16,03%	1,17%
2005	4,51%	23,66%	25,18%	32,22%	5,65%	NA	-3,49%	17,96%
2006	-6,85%	-49,51%	20,86%	85,88%	263,84%	NA	0,95%	12,77%
2007	4,59%	-54,21%	-21,61%	33,07%	-34,20%	-16,24%	89,34%	-13,85%
2008	0,41%	-53,18%	-54,01%	-23,13%	-47,20%	15,71%	-51,85%	-38,05%
2009	3,12%	76,59%	1,50%	-29,24%	-2,36%	3,93%	-32,43%	-2,16%

7. Econometric Model

7.1. Regression

All the independent variables are considered as possible factors, affection level of executive compensation. At first we tried to run the regression on the initial equation and on the strength of results we decided whether to keep all variables or to omit some of them.

$$\ln(\text{ETC}) = \text{const} + \beta_1 \ln(\text{A}) + \beta_2 \text{ROAA} + \beta_3 \text{ROAE} + \beta_4 \text{NIM} + \beta_5 \ln(\text{MC}) + \beta_6 \ln(\text{NI}) + \beta_7 \text{SR} \quad (\text{i})$$

First results are very inconsistent. Model 7.1.1 show that executive compensation should be positively influence by ROAA, ROAE, shareholder return (SR) and assets, but variables ROAE and SR are insignificant in this model according to their P-values (0,4291; 0,8817). On the other hand net negative effect should have variables interest margin (NIM), market capitalisation and net income, but also here MC has too high P-value (0,9360) and can't be considered as significant. When we omit the SR and MC, variables with highest P-values, we obtain slightly different results. In Model 7.1.2 ROAE and NI have opposite sign and in addition A is now insignificant. Model 3 describes regression only with the "ratio" variables, so we consider the following function:

$$\ln(\text{ETC}) = \text{const} + \beta_1 \text{ROAA} + \beta_2 \text{ROAE} + \beta_3 \text{NIM} + \beta_4 \text{SR} \quad (\text{ii})$$

We see that the signs changed again and moreover the F-statistic is under critical value, so this model should be rejected at all. Model 7.1.4 and Model 7.1.5 describes regression with dataset that cover only time period 2002-2006, the period before crisis, in which we observed systematic compensation growth in forgoing data analysis. We expected that result from this period could be more meaningful, but in first model only NIM is significant and in second model there occurred the same changes in signs as before, else ROAE assumed to have positive effect on compensation and seems to be very significant (p-value 0,0009), the coefficient is very small (0,0617247) and whole model has low R-squared (0,40809), which means that it does not explain desired interdependence very well.

We also examine the crisis period and the results are described by Model 7.1.6, Model 7.1.7 and Model 7.1.8. Again we see that model only with ratio variables is not valuable, but the Model 7.1.6 and Model 7.1.7 declare the significance of assets (A) (p-value 0,0034 resp. 3,93E-030) and its positive effect on compensation sum during the crisis.

In next part of regression we divide the dataset into two subsets – TARP recipients and non-TARP bank holding companies. Model 7.1.9, Model 7.1.10 and Model 7.1.11 consider the non-TARP banks ROAA and A positive effect, whereas NIM and NI seem to influence the compensation sum negatively. In case of TARP recipients we see clearly different situation. Model 7.1.12 and Model 7.1.13 show that important role has just A and ROAE, which is significant only at 10% (resp. 7%) level.

In these cases, regression do not give very good results when evaluating p-values and considering stable effects. At last we use the following simple regression model with basic “whole number” variables:

$$ETC = \text{const} + \beta_1 (A) + \beta_2 (MC) + \beta_3 (EpS^*) \quad (\text{iii})$$

(*variable EpS is optimized earnings per share to fit into the model by number of outstanding shares)

The last equation includes assets as measure of corporate value and profitability factor, market capitalisation as measure of bank’s size and earnings per share as determinant of shareholder interest. Results obtained from this regression are the most predicative.

7.2. Results of the Full Sample

In regression of the first two equations we do not get coherent results. From Model 1, 2 and 3 is not clear which variables are significant not even which has positive resp. negative impact on executive pay. It is obvious that the mean of results are mostly affected by SR and MC, although they are insignificant for the dependent variable because of their extreme highest p-values (0,8817 resp. 0,9360). When we omit them, almost every variable changes its role in the regression. ROAA does not take same effect in the models. In Model 1 and 2 ROAA is significant at 3% resp. 7% level, but has very small coefficient and in Model 3 looks like has opposite effect. ROAE

shows to have negative effect only in Model 2 with p-value 0,0244 and low coefficient - 0,0205324, in other two models is insignificant but with positive sign. Assets and Net Income both changed their significance and signs, so we can't adjudge them any effect through this model, their relationship with executive compensation are not clarified by these models.

There s only one variable with stable characteristics. Net Interest Margin has negative effect on compensation sum according to both models on 0,04% resp. 1,8% level with coefficient -0,371165 resp. -0,0734608. But here we would expect opposite sign, these results mean that, for instance, executive pay increase when NIM decreases. As G. Hanweck, L. Ryu (2005) described banks that have a higher proportion of net short-term assets in their portfolio experience a greater boost in their NIM it could deliver misleading information about bank's real performance. Net Interest margin represents company's attitude to risk and size of investment made and is could be strongly affected by changes on the stock market, so results from the regression may be caused by information delay. In general, values of estimates which were on high level of significance were not stable or controvert rational expectations.

The last model using equation (iii) offers more explicit results. As explanatory variables are used assets, market capitalisation and earnings per share. Additional explanatory variables are omitted because of their disturbing effect. Following tables describe model of GLS estimates of all 100 bank holding companies with the intention of particular compensation elements, specifically Sum, Bonus and Stock Award.

Table 7.2.1 General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Sum as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of all 100 banks, during period 2002-2009.

variable	coefficient	p-value
Const	9,56401E+06	2,73E-023 ***
A	0,0276968	1,56E-09 ***
MC	0,185470	0,0003 ***

EpS	0,0765646	0,7082
F-Statistic (102, 352)	4,35326	(p-value < 0,00001)
Unadjusted R-squared	0,55781	

As first we choose SUM as dependent variable. The regression uses 455 observations from the basic dataset and shows that total compensation sum is mostly influenced by the level of assets and market capitalisation. Table 7.2.1 shows that both variables are significant at .000% level and for R-squared 0,55781, we say the model explains desired interdependence at 56%. We see that signs of all parameters are as expected – positive relationship to executive pay. It means that executive officers are paid according to size of the bank, its growth and in connection with market capitalization also according to share price and number of shares outstanding. To test the hypothesis, that fixed effects are jointly insignificant, that intercepts are common for the cross-section, we use the F-test.

$$H_0: \beta_1 = \beta_2 = \beta_3 = 0$$

$$H_1: \beta_i \neq 0 ; i = 1, 2, 3$$

The F-statistic for our model is 4,35326, which is higher than critical value 1.75115 and that means that we reject the null hypotheses which further means that we did not prove that fixed effects are jointly insignificant.

Table 7.2.1 General Least Squares Results for the Full Sample - Dependent variable: BONUS

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Bonus as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of all 100 banks, during period 2002-2009.

variable	coefficient	p-value
Const	1,91855E+06	3,35E-06 ***
A	0,00420546	0,0793 *
MC	0,128650	2,26E-06 ***
EpS	0,0509979	0,5312
F-Statistic (101, 207)	3,91748	(p-value < 0,00001)
Unadjusted R-squared	0,65653	

In case with Bonus as dependent variable the regression uses 309 observations from the basic dataset and shows that bonus compensation is mostly influenced by the level of assets and market capitalisation. Table 7.2.2 reports that market capitalisation is again significant at .000% level, but assets at 8%. For R-squared 0,65653, we say the model explains desired interdependence at 66%, which means this model is stronger. We see that signs of all parameters are as expected – positive relationship to bonus payment. F-test does not confirm the null hypothesis, F-statistic 3,91748 is higher than 1,855651.

Table 7.2.3 General Least Squares Results for the Full Sample - Dependent variable: STOCK AWARD

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Stock Award as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of all 100 banks, during period 2002-2009.

variable	coefficient	p-value
Const	3,10385E+06	0,0005 ***
A	0,0257505	1,31E-09 ***
MC	-0,00456952	0,9279
EpS	0,289005	0,2840
F-Statistic (101, 243)	2,61662	(p-value < 0,00001)
Unadjusted R-squared	0,52097	

For last test we use Stock Award as dependent variable. The regression uses 345 observations from the basic dataset and shows that stock compensation is influenced only by the level of assets. Table 7.2.3 shows that market capitalisation has opposite sign and is absolutely insignificant (p-value 0,9272). Also this time F-test does not confirm the null hypothesis, F-statistic 2,61662 is higher than 1,819166. As was mentioned beyond TARP recipients are usually the bigger banks, so we expect that their numbers will play leading role in the regression and so model using TARP recipients' data should show similar results.

7.3 Results of TARP recipients

We reestimate the regression only for TARP recipients to find out whether there exists a difference between behaviour of TARP recipients and non-TARP banks.

Table 7.3.1 General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Stock Award as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of TARP recipients, during period 2002-2009.

variable	coefficient	p-value
Const	9,51077E+06	7,71E-017 ***
A	0,0165182	9,89E-05 ***
MC	0,233121	1,33E-06 ***
EpS	0,0510587	0,7981
F-Statistic (57, 248)	6,5165	(p-value < 0,00001)
Unadjusted R-squared	0,59964	

As first we choose Sum as dependent variable. The regression uses 306 observations from the basic dataset and shows that almost same results as for whole 100 banks. Table 7.3.1 declares that total compensation sum is mostly influenced by the level of assets and market capitalisation. Both variables are significant at .000% level and for R-squared 0,55781, we say the model explains desired interdependence at 60%. To test the hypothesis, that fixed effects are jointly insignificant, that intercepts are common for the cross-section, we use the F-test and again we reject the null hypothesis as the critical value is 2,042542.

Table 7.3.2 General Least Squares Results for the Full Sample - Dependent variable: BONUS

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Bonus as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of TARP recipients, during period 2002-2009.

variable	coefficient	p-value
Const	1,24309E+06	0,0020 ***
A	0,000888684	0,6310
MC	0,148368	6,20E-012 ***
EpS	-0,0229947	0,7300
F-Statistic (57, 141)	8,91654	(p-value < 0,00001)
Unadjusted R-squared	0,78282	

Second test applies Bonus as dependent variable and the regression uses 199 observations from the basic dataset. The numbers show that bonus compensation is mostly influenced by the level of assets and market capitalisation as we see in Table 7.3.2. Market capitalisation is again significant at .000% level, but assets is insignificant in this case. R-squared is high, 0,78282, that means the model is explained very well, at 78% level.

Table 7.3.3 General Least Squares Results for the Full Sample - Dependent variable: STOCK AWARD

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Stock Award as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of TARP recipients, during period 2002-2009.

variable	coefficient	p-value
Const	2,83740E+06	0,0006 ***
A	0,0190011	5,27E-010 ***
MC	0,0122396	0,7346
EpS	0,204062	0,3269
F-Statistic (57, 184)	4,72976	(p-value < 0,00001)
Unadjusted R-squared	0,59435	

For last test we use Stock Award as dependent variable. The regression uses 242 observations from the basic dataset and shows that stock compensation is influenced only by the level of assets as Table 7.3.3 describes.

We see that signs of all parameters and p-values are as expected. Decisions on executive compensation are based primary on assets and market capitalisation. TARP recipients' executive officers are paid according to size of the bank, its growth and in connection with market capitalization. In case of bonus compensation which represents cash compensation there exist only connection with market capitalisation and on the other hand Stock compensation is influenced by growth of assets.

7.4. Results of Non-TARP banks

In order to discover variation in behaviour of TARP recipients and non-TARP banks we reestimate the model once more.

Table 7.4.1 General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Sum as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of non-TARP banks, during period 2002-2009.

variable	coefficient	p-value
Const	7,44489E+06	8,78E-08 ***
A	0,0803497	5,16E-07 ***
MC	0,154470	0,5149
EpS	2,73697	0,0448 **
F-Statistic (45, 103)	6,29879	(p-value < 0,00001)
Unadjusted R-squared	0,73347	

As first we use SUM as dependent variable. The regression uses 149 observations from the basic dataset and shows that total compensation sum is mostly influenced by the level of assets and earnings per share. Assets are again significant at .000% level and earnings per share at 4%. For R-squared 0,73347, we say the model explains desired interdependence at 73%, so very well. We see that signs of all parameters are as expected – positive relationship to executive pay. It means that executive officers are paid not only according to size of the bank, but also considering shareholder earnings. F-statistic is very high, so we reject the null hypothesis about joint insignificance.

Table 7.4.2 General Least Squares Results for the Full Sample - Dependent variable: BONUS

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Bonus as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of non-TARP banks, during period 2002-2009.

variable	coefficient	p-value
Const	2,50318E+06	8,20E-05 ***
A	0,0665543	1,76E-07 ***
MC	-0,268569	0,1150
EpS	0,154549	0,9468
F-Statistic (44, 65)	6,61973	(p-value < 0,00001)
Unadjusted R-squared	0,81755	

Second test consider Bonus as dependent variable and the regression uses 110 observations from the basic dataset. Table 7.4.2 presents regression results that show that bonus compensation is influenced only by the level of assets, moreover earnings per share are here extremely insignificant and Market capitalisation seems to have negative effect on executive pay.

Table 7.4.3 General Least Squares Results for the Full Sample - Dependent variable: STOCK AWARD

This Table displays estimates obtained from fixed effect GLS model. We use equation (iii) with Stock Award as dependent variable and explanatory variables Assets, Market Capitalisation and Earnings per Share. The sample covers data of non-TARP banks, during period 2002-2009.

variable	coefficient	p-value
Const	744651	0,6197
A	0,0568658	0,0002 ***
MC	0,216359	0,3597
EpS	1,46033	0,2982
F-Statistic (43, 59)	6,98346	(p-value < 0,00001)
Unadjusted R-squared	0,83579	

In last test Stock Award is appointed as dependent variable and the regression uses 103 observations from the basic dataset. Numbers in Table 7.4.3 show connection only between compensation and assets. Other variables are insignificant but with positive signs.

In summary, the evidence indicates that in case of non-TARP banks executive compensation pay is determined by growth of assets and earnings per share. In difference from TARP recipients this group of banks consider shareholder interest in executive pay structure.

7.5. Deviation – bank black list

The last model gives us better results in terms of significance of estimates and overall determination. Variables that are important in explaining the variation in executive compensation differ between TARP recipients and non-TARP banks. It is rational to expect the value of coefficient for assets to be positive and it holds in all sub-regressions, but in case of TARP recipients important variable is also market capitalisation while non-TARP banks determine executive compensation according earning per share.

In the beginning we wanted to specify an ideal executive compensation structure. But by reason of realized weak relationship between executive pay and performance measures, we decided to exploit our results and find banks with the weakest relationship to performance measures. Through analyzing their compensation systems and comparing them with the TARP measure and the Dodd-Frank Financial Reform Act, we could get to the same target by opposite way.

Equation used for TARP banks:

$$\text{Target sum} = 9510770 + 0,0165182 * A + 0,233121 * MC$$

Equation used for Non-TARP banks:

$$\text{Target sum} = 7444890 + 0,0803497 * A + 2,73697 * EpS$$

We compute target compensation for all banks, summarize the target pay for whole period 2002-2009 and calculate the percentage difference between target compensation and real compensation that was paid out. As we expected TARP recipients appear generally on the higher positions in our black list than the non-TARP banks. Interesting is, that 20 TARP recipients from 45 of our sample reach negative results. It means that according to our model these banks paid out lower amounts of executive compensation than would be proper. But as our model has low predicative value, we do not believe, that every second TARP recipients determined executive remuneration under their performance achievements. For last part of our analyses we select three bank holding companies with the worst results. Goldman Sachs Group Inc. shows to paid out in total 73% higher compensation during the observed period; State Street corp. shows 62% overrun and American Express company 46%. We use proxy statements of these banks to find out what is the weak spot of TARP recipients compensation structures.

Number	Bank	Deviation %
10	Goldman Sachs Group Inc	+72,91
17	State street corp.	+62,19
50	AMERICAN EXPRESS company	+46,34

8. Analyses of executive compensation structures

According to the results from the regression I picked out the three bank holding companies with the largest deviation, banks that paid their executive officers by much higher amounts that was adequate. The three companies are Goldman Sachs Group Incorporated, State Street Corporation and American Express Company. They belong to the middle class of the TARP recipients; Goldman Sachs Group Incorporated borrowed \$10 Billion, State Street Corporation \$2 Billion and American Express Company \$3 Billion, whereas all three have already paid whole amounts back. In order to find the source of the weak relationship between executive compensation and performance, I seek through their Definite Proxy statements, which are published on the SEC's webpage and where the banks had to disclose all information about their compensation systems.

Proxy statements contain information about compensation for Chief Executive Officer and for four most highly compensated executive officers during fiscal years 2002-2009. Summary Compensation Table, Option Grants in the fiscal year and its year-end values, Conditions of Employment Arrangements and Changes of Control Arrangements, Stock Price Performance, Report of the Compensation Committee on Executive Compensation + Structure of the Compensation Committee, Compensation Policies – consideration of Performance and Competitive Compensation; Tally Sheet of the COE - Cash Compensation, Equity-Based Compensation, Retirement and Welfare Benefits, Other Benefits and Perquisites; Deductibility of Compensation (1 million cap), and in the end Report of the Audit Committee.

Results obtained from regression were used to compute how the TARP recipients constructed their executive compensation and which of them indicate weakest relationship between performance and executive remuneration.

8.1. Goldman Sachs Group Inc.

Goldman Sachs was founded in 1869 and is one of the biggest American bank holding companies, specialized in global investment banking, securities and other financial services. Goldman Sachs holds a position of primary dealer in the United States Treasury security market. But they belong to the group of banks, which were accused of making money (profiting) from crisis at the expenses of their customers.

The executive pay usually consists of cash compensation and equity-based elements. Goldman Sachs paid out their executive officers 55% of compensation in cash and 45% in equity-based award. The equity-based awards are designed to provide the senior executives with the same interests as Goldman Sachs' other shareholders. Since 2002 Options Award as an exercise price, or "strike" price was used the closing price-per-share of Common Stock on the New York Stock Exchange (NYSE). 25% of these Options were usually vested on the grant date, with the remaining 75% generally vesting after three years. Upon termination of employment, options remain exercisable, generally until the expiration date. They hold the base salary at \$600,000 during the whole period 2002-2009. Restricted stock unit awards are awarded by the closing price-per-share of Common Stock on fiscal year-end.

The Goldman Sachs' Compensation Committee is comprises of eight of Non-Management Directors. Upon the recommendation of the Corporate Governance and Nominating Committee, The Board of Directors determined that each member of the Compensation Committee is "independent" within the meaning of the rules of the NYSE. The Compensation Committee engaged three independent compensation consulting firms to assist with compensation analyses, as well as to provide consulting on executive and non-executive compensation practices, including information on year-end equity-based award design. In 2002 the Compensation Committee asked the consultants to assess Goldman Sachs' compensation practices against industry best practices. They concluded that Goldman Sachs' executive pay practices "are consistent with competitive best practices and generally accepted compensation standards and

provide a powerful management tool that drives outstanding individual and institutional performance³⁶.”

The Restricted Partner Compensation Plan and the Stock Incentive Plan are regularly approved by Goldman Sachs’ shareholders and considered performance-based compensation within the meaning of Section 162³⁷(m) of the Internal Revenue Code. The bonus payable under the Restricted PCP is determined according to a percentage of Goldman Sachs’ Pre-Tax Earnings. Value of Unexercised In-The-Money Options is the aggregate, calculated on a grant-by-grant basis, considering the difference between the exercise price for the grant and the closing price-per-share of Common Stock in the fiscal year-end.

The individual, business unit and divisional performance considerations used in determining compensation are derived through a number of internal objective and discretionary processes, including Goldman Sachs’ performance evaluation program. This program is a “360 degree” feedback process. The performance review feedback is combined with a subjective determination of individual performance and contributions to hiring, mentoring, training and diversity. In meaning to Competitive compensation Goldman Sachs analyzes their peer group – the most highly compensated employees at The Bear Stearns Companies Inc., Citigroup Inc., Credit Suisse Group, Lehman Brothers Holdings Inc., Merrill Lynch & Co., Inc. and Morgan Stanley.

Considerations Used in Determining Amount of Bonus the Committee determined the aggregate amount of bonuses to be in light of the firm’s return on

³⁶ See Goldman Sachs: Definite Proxy Statement 2003, www.sec.com

³⁷ See The Internal Revenue Code; Section 162 (m), <http://www.fourmilab.ch>

Performance-based compensation :The term "applicable employee remuneration" shall not include any remuneration payable solely on account of the attainment of one or more performance goals, but only if

- (i) the performance goals are determined by a compensation committee of the board of directors of the taxpayer which is comprised solely of 2 or more outside directors,
- (ii) the material terms under which the remuneration is to be paid, including the performance goals, are disclosed to shareholders and approved by a majority of the vote in a separate shareholder vote before the payment of such remuneration, and
- (iii) before any payment of such remuneration, the compensation committee referred to in clause (i) certifies that the performance goals and any other material terms were in fact satisfied.

average tangible shareholders' equity of 39.8%, pre-tax earnings of \$14.6 billion and net earnings of \$9.5 billion.

Based on final 2007 results Golden Sachs had the highest growth in the group for each of defined measures. For fiscal 2007, they achieved record net revenues (a 22% increase over fiscal 2006), net earnings (a 22% increase over fiscal 2006) including record net revenues and diluted earnings per common share.

In the same year Golden Sachs faced accusation of violation the federal securities laws by wilful Option awards undervaluation disclosed in Proxy Statements from 2007. The recipients should receive excessive awards because the proper methodology was not followed, and that the firm's senior management received excessive compensation, constituting corporate waste. But 2008, the U.S. District Court for the Eastern District of New York denied shareholders' complaint challenging the 2007 Proxy Statement.

In 2008 The Compensation Committee had to react to the financial crisis, so the executive officers did not receive any bonus, stock, restricted shares or option awards for fiscal year 2008. Prior to termination of the Non-Qualified Deferred Compensation plan each participant was permitted to elect to defer up to \$1 million of his or her fiscal year-end bonus for up to the later of (i) 10 years or (ii) six months after termination of his or her employment. Amounts deferred under our NQDC plan generally are not forfeitable.

Before TARP introduced its Summary of Standards for Compensation and Corporate Governance, Goldman Sachs decided to ensure stronger control over executive officers' conduct by imposing a Right to Recoup Restricted Shares and Option Payments. The company retain the right to require an employee to repay the fair market value of the shares of Common Stock received by them in respect of RSUs or repay the spread on the shares of Common Stock received upon exercise of Options by them, as the case may be, if the board determines that he or she failed to meet the conditions for delivery of such shares or exercise of such Options. In the same order executive officers are required by Shareholders' Agreement to retain sole beneficial ownership of a number of shares of Common Stock equal to at least 75% of the shares

they have received under our Stock Incentive Plan since becoming a senior executive officer.

In 2009 Compensation Committee determined to pay 100% of executive officers' year-end discretionary compensation in deferred equity. Since this year Goldman Sachs' executive officers are prohibited from hedging shares of Common Stock or their equity-based awards, which includes RSUs and Shares at Risk.

8.2. State Street Corporation

State Street Corporation was founded in 1792 and is one of the biggest American financial services holding companies with offices in major financial centres throughout the world. The company comprises of three main parts - State Street Bank and Trust Company, a custodian bank, and State Street Global Advisors. By the appearance of financial crisis in 2008 State Street had to lay off approximately 1400 employees and ask for help the TARP.

The State Street's Compensation Committee is comprised entirely of independent, non-employee directors. The Committee established performance targets for these grants, tied to a combination of financial measures, based upon return on equity, earnings per share and total stockholder return. Measures used by State Street to benchmark and evaluate performance for a fiscal year: Return on Equity, Growth in Revenues, Operating Net Income, Operating Leverage, Earnings per Share and Total Shareholder Return. Same as in case of Golden Sachs, State Street Corporation benchmarks their total compensation against a peer group of companies with which they compete in business.

Executives are eligible for annual cash bonuses under the provisions of the Senior Executive Annual Incentive Plan. Each year the Committee assigns to each executive a minimum, target and maximum bonus award opportunity, stated as a percent of salary (\$0 and a maximum award of \$5,000,000). Salary and bonus reflect one-year results, performance awards reflect two-year results, and stock options, deferred stock awards and restricted stock awards reflect long-term stock price

appreciation. The Committee has adopted a policy of reviewing base salary levels every two year using a formula payout opportunity based on the corporation's operating-basis net income. The size of option awards based upon subjective factors also includes the perceived importance of the executive's contribution to the success of State Street. The options have a ten-year life and become exercisable in three equal annual instalments starting at the second anniversary of the grant date. The exercise price of options is equal to the market price of the shares at the time of the grant.

In 2006 the Committee decided that it would begin using Stock Appreciation Rights (SARs). SARs settled in stock reduce the amount of shares issued from the approved equity plan as compared to stock options and reduce shareholder dilution. The exercise price of SARs is equal to the market price of the shares at the time of the grant. The SARs rights have a maximum ten-year life and generally become exercisable in four equal annual instalments starting at the first anniversary of the grant date. A value of the grant is dependent upon an increase in the price of State Street stock.

Under Annual Incentive Plan Compensation is paid out $\frac{2}{3}$ in cash and $\frac{1}{3}$ in deferred stock awards that are scheduled to vest in two equal annual instalments based on continued employment. The Medium- and Long-Term Incentive Compensation is paid in form of stock appreciation rights. The Committee determines the number of units by dividing the portion of the executive's total compensation dollar amount allocable to performance awards by 75% of the closing price of our stock on the date of grant. State Street believes that this discount to market is appropriate to reflect the performance requirements necessary to earn the award and the fact that the executive must remain employed at State Street.

There was big difference between State Street's performance during 2007 and 2008. In 2007 the company reached record revenues of \$8.3 billion, but in 2008 State Street experienced unrealized losses in their investment portfolio and the decline in State Street's share price resulting continued disruption in the financial markets. State street significantly reduced the cash incentive compensation in 2007 believed that it was appropriate to increase the relative amount of compensation granted to the Operating Group in the form of equity awards as an incentive to achieve future

corporate financial growth, moreover all of the top executive officers didn't receive any equity awards, medium- or long-term incentive award grants.

State Street newly imposed Stock Ownership Guidelines in 2007. It means that the target level of stock ownership is the lesser of 100,000 shares or shares valued at \$5,000,000 for the chief executive officer, the lesser of 40,000 shares or shares valued at \$2,000,000 for executive officers.

In 2009 Committee determined, in general, to award only approximately 5% of incentive compensation in the form of non-deferred, or immediately available cash. The remainder of the cash component of incentive compensation was awarded in the form of two-year deferred cash. Deferred cash awards vested ratably over the eight fiscal quarters following the date of grant and were credited with 3% interest. These deferred cash awards represented, in several, approximately 24% of overall incentive compensation. In addition, the Committee awarded only one form of equity-based incentive compensation, four-year performance-based restricted stock units.

In 2009 were established other two policies - Compensation Recovery and Securities Trading Policy. Compensation Recovery, or clawback policy. Mechanism applies to deferred cash and equity incentive compensation and encourages appropriate incentives in connection with goals. The deferred compensation consists of performance-based restricted stock units and deferred cash awards, each contain provisions permitting the reduction or cancellation of the amount to be paid under the award, in whole or in part, in the prespecified events³⁸. Securities Trading Policy, or No Hedging or Speculative Trading, contains prohibitions against selling State Street securities short, engaging in options trading or hedging transactions in State Street securities and engaging in speculative trading in State Street securities.

³⁸ (1) the relevant officer engaged in fraud, gross negligence or any misconduct that was materially detrimental to the interests or business reputation of State Street or any of its businesses or (2) as a result of a material financial restatement or miscalculation or inaccuracy in the determination of performance metrics, financial results or other criteria, the relevant officer would have received a smaller or no award. See State Street: Definite Proxy Statement 2010, www.sec.com

8.3. American Express Company

American Express Company was founded in 1850 and is ranked among biggest bank holding companies offering global [financial services](#). Their Compensation Committee regularly reviews competitive pay practices at approximately 50 companies that compete with the Company in business or for executive talent.

The American Express Compensation Committee evaluated progress toward goals that are important for sustaining the Company's success. Shareholder value (50% weight) -includes shareholder return, earnings growth, revenue growth, return on equity and reengineering; customer satisfaction (25% weight) - includes customer survey results, expansion and retention of customer base and development of products and services; employee satisfaction (25% weight) - includes employee survey results, success in achieving long-term, world-class targets and retention of talented employees.

Long-term incentive awards included stock option and portfolio grant (PG) awards. Ten-year stock options reward executive officers if the company's share price increases for all shareholders. Executives may exercise one-third of the grant after one year, two-thirds after two years and the full grant after three years. On the other hand PG awards contain a formula based on the Company's three-year earnings per share growth, revenue growth, average return on equity and total shareholder return compared to the return of the S&P Financial Index. Each PG award has two parts. The first part is the Financial Incentive Component (FIC), which accounts for 60% of the target value of the award. The FIC is based on the Company's average annual earnings per share, revenue and return on equity results over the three-year period.

American Express' share ownership policy requires approximately 150 senior officers to have a share ownership target based on a multiple of their base salary, ranging from three times base salary for certain participant to 20 times for Chief Executive Officer. As an incentive to maximize shareholder value, a participant may count toward his or her target the value of: owned shares, shares held in employee benefit plans, 50% of the unrealized gain in stock options and 50% of the market value

of restricted shares, with market value based on the market price of the Company's common shares.

Executives may exercise 25% of Stock Option grant after one year, 50% after two years, 75% after three years, and 100% after four years. Under the annual Pay-for-Performance Deferral Program, executives may defer receipt of part of their current compensation to a later date as part of their personal retirement or financial planning.

The Company usually try to meet or exceed its long-term financial targets of 12%-to-15% growth in earnings per share (EPS), 18%-to-20% return on equity (ROE) and revenue growth of 8%. Diluted EPS grew by 14%, ROE was 20.6% and revenues increased 9%. In 2005 the Company achieved record earnings driven by strong growth across its payments businesses and worldwide spending on American Express cards rose 16%.

Policy Regarding Recoupment of Incentive Compensation protect the shareholders' interests, American Express established a policy to seek to recover performance-based compensation from any executive officer in case of prespecified circumstances³⁹. Moreover American Express require each top executive to sign an agreement, Detrimental Conduct, that requires him to forfeit the proceeds from some or all of his compensation received under the 1998 Plan⁴⁰ that were received up to two years prior to employment termination if he engages in conduct that is detrimental to the Company following employment termination.

Executive officers between 55 and 59 years old and who are credited with 10 or more years of employment service are eligible to retire. Unvested RSAs and LOIs that have been outstanding for more than two years will fully or partially vest, PG awards that have been outstanding for more than one year will vest pro rata, and 50% of

³⁹ (i) the payment of such compensation was based on the achievement of financial results that were subsequently the subject of a restatement, (ii) in the Board's view the employee engaged in fraud or misconduct that caused or partially caused the need for the restatement, and (iii) a smaller or no payment would have been made to the employee based upon the restated financial results. See American Express Company: Definite Proxy Statement 2007, www.sec.com

⁴⁰ including RSAs (and dividends paid), NQSOs, LOIs (and dividend equivalents paid), PGs and, AIAs

unvested stock option shares that have been outstanding more than one year will vest according to the original vesting schedule.

Generally used on-average and over-time financial targets are of 12-15% earnings per share (EPS) growth, revenue growth of at least 8% and return on equity (ROE) of 33-36%. But given the economic and business environment in 2008, and in particular during the latter half of the year, it could not be achieved. So The Committee declined an annual incentive award, given the overall business and economic environment. As next the Committee agreed, that the annual base salary of each the executive officer and other senior management of the Company was reduced 10% as part of a series of actions⁴¹ to reduce the Company's cost structure. To further encourage a focus on the long term, American Express prohibited employees from engaging in hedging and other derivative transactions with respect to our stock. Like other participants in the TARP, they agreed to expand the standards under which they may recoup performance-based compensation from executive officers. Accordingly, to the extent that any bonus, retention award or incentive compensation paid to any executive officers during the period in which the Treasury Department holds their preferred shares.

8.4. Dodd-Frank Financial Reform Act and TARP Standards

Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into law on July 21, 2010. This document is considered to be the most significant piece of financial regulation since the Great Depression. It tries to collect the "best practices" among America's largest companies and also covers most of the TARP act measures. The Act bonds a financial regulatory reform with consumer and investor protection.

⁴¹ These actions included the impact of the rapidly deteriorating global economic environment in 2008, and applied qualitative judgment to award a final payout of 150% of the target awards set at the time of grant in early 2006, as compared to a final payout of 230% the prior year. See American Express Company: Definite Proxy Statement 2007, www.sec.com

The reform concretely focuses on:

- § Say on Pay
- § Executive Compensation Disclosure
- § Clawbacks Policies
- § Hedging Policies
- § Company Leadership Structure
- § Other Government Provisions

“Say on Pay” requires all public companies to hold a non-binding advisory vote on executive compensation payable to named executive officers at least once every three years. Moreover the companies will be required to hold a non-binding frequency vote to determine whether to hold annual, biannual or triennial say on pay votes and also the disclosure of say on parachutes vote on compensation related to an acquisition, merger, consolidation or proposed sale will be compulsory. Say on pay has achieved widespread popularity over the past few years. All companies receiving financial assistance under TARP adopt say on pay policy already.

Executive compensation disclosure was widely used during last decade, but still needs some extensions. All public U.S. companies should be required to disclose the relationship between the compensation actually paid to executives and the financial performance of the company. They will have to disclose the median of the total compensation paid to all employees (excluding the CEO), the total compensation paid to the CEO and the ratio between the two⁴². But the legislative does not specify how it should be calculated. This measure would ensure that this disclosure is transparent and accessible to shareholders. Many companies currently provide detailed discussions on the relationship between pay and performance.

Clawback policies already reached legal form. The SEC prohibits the exchanges from listing any company that fails to implement a clawback policy pursuant to which incentive based remuneration can be recouped for a period of three years from

⁴² See Equilar: Dodd-Frank Financial Reform Act: Preparing for 2011

current and former executives in a financial restatement. Clawback policies generally involve cash incentives and equity incentives.

Hedging policies requires companies to disclose whether or not executive officers are allowed to purchase financial instruments to hedge or offset any decreases in the market value of equity securities granted as compensation to or held directly or indirectly by an employee or member of the Board of Directors. This was also the fundamental requirement of the TARP act.

Reformed policy considering Company leadership focuses on management structure. Companies should disclose their current leadership structure and why they have chosen to combine the roles of the CEO and Chairman, or separate the two roles.

Other governance provision is related to further disclosures, to be exact materials supplied by the company for the purpose of nominating individual members on the Board of Directors, in the interest of shareholders and for the protection of investors. The adopted rules will permit director nominations from shareholders that have held more than three percent of the voting power of the company's shares for a minimum of three years⁴³. They intended to give shareholders more power over the Company's nomination and decision making process.

Last part of the act describes specification for Compensation Committee and Advisory Services. The primary objective is independence. The SEC is required adopt rules that prohibit the national securities exchanges and associations from listing a company's securities that is not in compliance with the requirement that each member of the compensation committee is an independent member.

TARP Act states that no bonus, retention award or incentive compensation⁴⁴ may be paid to executive officers or any of our next 20 most highly compensated

⁴³ See Equilar: Dodd-Frank Financial Reform Act: Preparing for 2011

⁴⁴ It means that less than \$25,000,000 - applies only to the most highly compensated employee (determined without regard to title or executive officer status); at least \$25,000,000 but less than \$250,000,000 - applies to at least the five most highly compensated employees (determined without regard to title or executive officer status); at least \$250,000,000 but less than \$500,000,000 – applies to the CEOs and at least the ten next most highly compensated employees (determined without regard to title or executive officer status); \$500,000,000 or more – applies to the CEOs and at least the twenty next most highly compensated employees (determined without regard to title or executive officer

employees, except for equity awards in the form of long-term restricted stock, subject to vesting restrictions and in an amount not greater than one-third of the total amount of the employee's total annual compensation. In addition, no such equity award may vest fully until after the preferred stock issued to the US Treasury has been redeemed.

Besides that TARP introduced few additional restrictions. Most frequently highlighted is zero-tolerance for golden parachutes. It is prohibited from making any payment to executive officers and any of the next five most highly-compensated employees for departure from the Company for any reason. The accidental measures comprise Compensation review for entities receiving exceptional financial assistance, Luxury Expenditure Policy and Annual "Perk" Disclosure⁴⁵. All these rules had to be adopted by all TARP recipients, but some of them were already included in banks' compensations policies. As last part of our analyses we try to find which of the most important rules were missing in black list banks' remuneration structures.

8.5. Comparison

The essential objectives of executive compensation program for executive officers are to attract, retain and motivate superior executives and reward them for meeting short-term and longer-term goals with consideration of shareholder interests.

Vesting conditions applicable to deferred cash and equity awards also encourage executive retention. The compensation systems didn't change very much during the period 2002-2009 and when did, it was in the right way – to tie the compensation closer to the performance and shareholders' interests. The rules got tougher. All three black list banks used combination of remuneration bounded to short-term and long-term targets since 2002. Salary and bonus generally reflect one-year results, performance awards reflect two-year results, and stock options, deferred stock awards and restricted stock awards reflect long-term stock price appreciation. As

status). See Summary of TARP standards for compensation and corporate governance, June 2009, www.thefederalregister.com

⁴⁵ Such disclosure must identify the amount and nature of the perquisites and disclose a justification for offering these perquisites. See Summary of TARP standards for compensation and corporate governance, June 2009, www.thefederalregister.com

performance target were used return on equity, earnings per share, growth in revenues, operating net income and total stockholder return. In the last two year 2008 and 2009 more than 50% of executive pay was created by stock and option award. Concerned banks apply very similar option policy; executive officers may exercise 25% of Stock Option grant after one year, 50% after two years, 75% after three years, and 100% after four years. 25% of options were usually vested on the grant date, with the remaining 75% generally vesting after three years, moreover in case of American Express the compensation committee established predefined vesting schedule.

The scale of disclosed information is same for all three companies. On the webpage of U.S. Securities and Exchange Commission are published very long proxy statements with detailed information, but sometimes confusing⁴⁶ and the form differ bank to bank. In this way we would recommend a uniform structure of compensation statements with clearly defined calculations of particular compensation elements.

Conditions regarding Compensation Committees are fulfilled by all three companies. The members are independent and the Committees routinely use assistance from consulting firms.

The rule Say on Pay is partly also used by our three companies. Shareholders vote about Stock Incentive Plan and Restricted Option Plan. Moreover in order to integrate interests of shareholders and executive officers, the banks construct form new element of compensation, stock appreciation rights. This award is worthy only when the stock price increases and is paid in four annual instalments.

In the case of hedging policy only Goldman Sachs mentioned own strategy against hedging, but it is not clear from the proxy statements whether they introduced this policy on own will or as obligatory measure required by TARP administration.

Last point is Stock Ownership Guidelines ownership. All three banks established very simple plans. They consider only ownership during employment, but the reform act requires additional rule for postretirement holding. As Bebchuk, Fried (2009)

⁴⁶ For example when you are looking for particular equation, how was calculated the option Award, the explanatory note would refer to another note, in another statement, where specific calculation is neither. See Summary compensation table; American Express Proxy statement 2007, www.sec.com

argued to oblige executive officers to hold their shares for one or two years following retirement would prevent them to focus on short-term stock price in their last years in the service. But it could also lead to early retirement. To avoid this concern they recommend managers be allowed to liquidate annually a small fraction of their stock and option holdings in their bank (5-15%). The 85% of their stock-holdings that they still own will provide incentives to serve shareholder interests for the next several years⁴⁷. Moreover stock-price movements and stock performance are usually influenced by many other factors besides the executive officers' performance.

The only missing measure is hedging policy and probably the after retirement holding requirement. All the three bank holding companies from our black list declared most of the measures now asked by government through financial reform act. They also affirmed in their proxy statements that fundamental components of executive compensation are defined on the performance basis. So in term of disclosed information they used quite suitable compensation structures, but the regression result do not confirm that. Reasons of such weak finding could be the individuality of each executive officer's performance, which is measured by same rules, but outcomes are different for each officer and bank performance is same for everybody. It could cause divergence in the relationship between executive team compensation and bank performance, individual pay and bank performance. In addition different time of granting and vesting causes time inconsistency of option and stock compensation and is confusing for the data analyses. Moreover the executive pay computation considers two dubious elements - Individual performance evaluation and peer group adjustment. The first measure is very hard to check whether the individual contribution is properly evaluated. The second method could discourage the management to react differently than the reference group – collective responsibility and collective guilt, it tempt to behave in the same way as other do, wait to somebody else make the first step back.

⁴⁷ See Sanjai Bhagat (2010): Bank Executive Compensation And Capital Requirements Reform

9. Conclusion

The objective of this diploma thesis is to examine the relationship between executive pay and bank performance. In a sample of 100 biggest American bank holding companies we try to describe differences between behaviour of TARP recipients and non-TARP banks during period 2002-2009, with consideration of financial crisis effect. Did the TARP recipients rely upon government financial help? The data analysis pointed out TARP recipients had been gradually increasing executive compensation before the crisis. During 2002-2006 these banks were paying out higher and higher amounts in bonus, stock award and option award. We see faster movements up in executive pay during good times, but when the crisis occurred, they reacted slowly. The global financial crisis really started to show its effects in the middle of 2007 and continued 2008.

Results obtained from the regression illustrate very weak relationship between executive paid out remuneration and companies' performance as we expected. Our model illustrates very unclear connection with return on equity, net income and shareholder return, which are the basic targets declared by the banks as essential compensation determinants. Should we look at TARP recipients as the better ones, who deserved to be saved, deserved to obtain money for government and let the tax payers bear the expenses, or are they just too-big to fail? In summary, the evidence indicates TARP recipients based their decisions on executive compensation primary on growth of assets and market capitalisation, which means executive officers are paid according to size of the bank. In case of non-TARP banks executive compensation pay is determined by growth of assets and earnings per share, which point out closer relationship to shareholder interests. A possible explanation for our poor regression results is that although the banks' compensation policies are properly defined, the banks use them more as guidelines (instructions) than fixed rules.

In the last section we focus on particular compensation policies of black list banks, banks that prove weakest relationship between executive pay and performance. We find out that all these three bank holding companies, Goldman Sachs Group inc., State Street corp. and American Express company, used in their

compensation structures almost all measures that are demanded by the Dodd-Frank Financial Reform Act concerning TARP requirements. Financial institutions are mostly criticized for high compensation granted for short-term results. But since 2006 bonus is not the biggest part of executive remuneration, it covers only 18% of total compensation sum, but Stock award frames 32% and Option award represents 14%. Cash compensation reflect one-year results, performance awards reflect two-year results, and stock options, deferred stock awards and restricted stock awards reflect long-term four-year performance-based targets considering stock price appreciation. Options were usually vested on the grant date, with the remaining 75% generally vesting after three years and deferred stock awards that are scheduled to vest in two equal annual instalments based on continued employment. Executives may exercise 25% of Stock Option grant after one year, 50% after two years, 75% after three years, and 100% after four years. They also implemented Stock Ownership Policy, Portfolio Grant based on three-year shareholder return growth and Stock Appreciation Rights compensation which is also dependent on shareholder earnings. As a result of these reviews, we do not believe that incentives arising from compensation policies as are defined are reasonably likely to conflict with shareholders interest or motivate executive officers to take excessive risks.

We believe that executive incentive compensation should not consist only of restricted equity - restricted stock and restricted stock option, as propose Bhagat, Romano (2009), but what is still missing in executive compensation practice is strong clearly observable connection between compensation and performance based goals. Compensation practices have to attract high-potential individuals, motivate and retain current qualified executive officers, nor tempt to excessive risk taking neither prompt to early retirement. We suggest that banks should adopt incentive compensation structure with regard to their own long-term financial goals and shareholder interests. In this way we support Bebchuk, Fried (2009) proposal to involve hedging policy in modern compensation structures and impose some version of unwinding policy. Our results also agree with Bgahat, Balton (2010) suggestion to require executive officers to hold portion of their stock after retirement. Finally we recommend new formal

version of compensation disclosures, to enhance executive pay information easily to be checked.

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11. Appendix

Table 5.1.1 List of Bank Holding Companies chosen for our sample

#	Name	Country Rank	#	Name	Country Rank
1	JP Morgan Chase & Co.	1	51	Associated Banc-Corp	109
2	Bank of America Corporation	2	52	ASTORIA FINANCIAL CORP	112
3	Citigroup Inc	4	53	Zions Bancorporation	117
4	Fannie Mae-Federal National Mortgage Association	5	54	Raymond James Financial Inc	118
5	Freddie Mac-The Federal Home Loan Mortgage Corporation	6	55	Jefferies Group Inc	119
6	Lehman Brothers Holdings Inc.	7	56	COMMERCE BANCSHARES INC	122
7	Merrill Lynch & Co., Inc.	8	57	TCF FINANCIAL CORP	124
8	Wachovia Corp.	9	58	CITY NATIONAL CORP	128
9	Wells Fargo Bank, NA	11	59	iStar Financial Inc	133
10	Goldman Sachs Group Inc	14	60	Cullen Frost Bankers Inc	134
11	Washington Mutual inc.	18	61	Guaranty Bankcorp.	135
12	Federal Home Loan Bank of San Francisco	20	62	Valley National Bankcorp	136
13	Federal Home Loan Bank of Atlanta	26	63	BancorpSouth, Inc.	146
14	Bank of New York Mellon	28	64	FLAGSTAR BANCORP INC	140
15	SunTrust Banks inc.	29	65	BANKUNITED FINANCIAL CORP.	142
16	HSBC USA INC	30	66	DOWNEY FINANCIAL CORP	147
17	State street corp.	31	67	SOUTH FINANCIAL GROUP INC	144
18	BRANCH BANKING & TRUST CO	34	68	U.S. Bancorp	111
19	National City corp.	35	69	Susquehanna Bancshares, Inc.	148
20	REGIONS FINANCIAL CORP	36	70	Washington Federal, Inc	152
21	PNC FINANCIAL SERVICES GROUP INC	37	71	POPULAR Inc.	153
22	Federal Home Loan Bank of New York	39	72	East West Bancorp, Inc.	155
23	Capital One Financial Corporation	41	73	Whitney Holding Corporation	156
24	Key Bank - KeyCorp.	43	74	Wilmington Trust Corporation	158
25	Federal Home Loan Bank of Cincinnati	46	75	Cathay General Bancorp	163
26	Federal Home Loan Bank of Chicago	47	76	FIRSTMERIT CORP	166
27	Federal Home Loan Bank of Pittsburgh	48	77	Bank of Hawaii corp.	169
28	CIT Group inc.	51	78	PACIFIC CAPITAL BANCORP	179

29	Federal Home Loan Bank of Boston	53	79	METLIFE INC	172
30	Federal Home Loan Bank of Dallas	54	80	TRUSTMARK CORP	178
31	Northern Trust corp.	57	81	SVB financial group	180
32	UnionBanCal corp.	58	82	UMB FINANCIAL CORP	184
33	Federal Home Loan Bank of Des Moines	62	83	DORAL FINANCIAL CORP	185
34	Comerica inc.	63	84	NATIONAL PENN BANCSHARES INC	186
35	M&T Bank corp.	66	85	PROSPERITY BANCSHARES INC	187
36	COMPASS BANCSHARES INC	68	86	MB FINANCIAL INC	188
37	Federal Home Loan Bank of Topeka	71	87	UMPQUA HOLDINGS CORP	191
38	Federal Home Loan Bank of Seattle	72	88	UNITED COMMUNITY BANKS INC	192
39	Morgan Stanley (Bank)	73	89	ALLIANCEBERNSTEIN L.P.	193
40	M&I Marshall and Ilsley	74	90	FIRST MIDWEST BANCORP INC	194
41	Federal Home Loan Bank of Indianapolis	75	91	PRIVATEBANCORP, INC	195
42	FIFTH THIRD BANCORP	76	92	CORUS BANCSHARES INC	197
43	HUNTINGTON BANCSHARES INC	77	93	FULTON FINANCIAL CORP	198
44	SCHWAB CHARLES CORP	78	94	NEWALLIANCE BANCSHARES INC	199
45	E*Trade Financial Corporation	80	95	BB&T CORP	172
46	Discover Financial Services	86	96	SYNOVUS FINANCIAL CORP	159
47	Ally Financial Inc.	89	97	WINTRUST FINANCIAL CORP	*
48	INDYMAC BANCORP INC	90	98	UCBH HOLDINGS IN	*
49	New York Community Bancorp, Inc.	95	99	CVB FINANCIAL CORP	*
50	AMERICAN EXPRESS company	100	100	FIRST HORIZON NATIONAL CORP	*

*Banks chosen additionally for a consideration of their high consumption of TARP funds.

Table 5.1.2

#	Name	TARP funds
1	JP Morgan Chase & Co.	\$25 B returned / \$25 B disbursed
2	Citigroup Inc	\$31 B returned / \$45 B disbursed
3	Bank of America Corporation	\$45 B returned / \$45 B disbursed
4	Fannie Mae-Federal National Mortgage Association	\$85 B disbursed
5	Freddie Mac-The Federal Home Loan Mortgage Corporation	\$63 B disbursed
9	Wells Fargo Bank, NA	\$25 B returned / \$25 B disbursed
10	Goldman Sachs Group Inc.	\$10 B returned / \$10 B disbursed
15	SunTrust Banks inc.	\$5 B disbursed
17	State street corp.	\$2 B returned / \$2 B disbursed
20	REGIONS FINANCIAL CORP	\$4 B disbursed
21	PNC FINANCIAL SERVICES GROUP INC	\$8 B returned / \$8 B disbursed
23	Capital One Financial Corporation	\$4 B returned / \$4 B disbursed
24	Key Bank - KeyCorp.	\$3 B disbursed
28	CIT Group inc.	\$2 B disbursed
31	Northern Trust corp.	\$2 B returned / \$2 B disbursed
34	Comerica inc.	\$2 B returned / \$2 B disbursed
35	M&T Bank corp.	\$2 B disbursed
39	Morgan Stanley (Bank)	\$10 B returned / \$10 B disbursed
40	M&I Marshall and Ilsley	\$600 M disbursed
42	FIFTH THIRD BANCORP	\$3 B disbursed
43	HUNTINGTON BANCSHARES INC	\$1 B disbursed
46	Discover Financial Services	\$1 B returned / \$1 B disbursed
50	AMERICAN EXPRESS company	\$3 B returned / \$3 B disbursed
51	Associated Banc-Corp	\$525 M disbursed
53	Zions Bancorporation	\$1 B disbursed
57	TCF FINANCIAL CORP	\$361 M returned / \$361 M disbursed
58	CITY NATIONAL CORP	\$400 M returned / \$400 M disbursed
61	Guaranty Bankcorp.	\$7 M disbursed
62	Valley National Bankcorp	\$300 M returned / \$300 M disbursed
64	FLAGSTAR BANCORP INC	\$267 M disbursed
67	SOUTH FINANCIAL GROUP INC	\$347 M disbursed
68	U.S. Bancorp	\$7 B returned / \$7 B disbursed
69	Susquehanna Bancshares, Inc.	\$200 M returned / \$300 M disbursed
70	Washington Federal, Inc	\$200 M returned / \$200 M disbursed
71	POPULAR Inc.	\$935 M disbursed
72	East West Bancorp, Inc.	\$307 M disbursed
73	Whitney Holding Corporation	\$300 M disbursed

74	Wilmington Trust Corporation	\$330 M disbursed
75	Cathay General Bancorp	\$258 M disbursed
76	FIRSTMERIT CORP	\$125 M returned / \$125 M disbursed
78	PACIFIC CAPITAL BANCORP	\$181 M disbursed
80	TRUSTMARK CORP	\$215 M returned / \$215 M disbursed
81	SVB financial group	\$235 M returned / \$235 M disbursed
84	NATIONAL PENN BANCSHARES INC	\$150 M disbursed
86	MB FINANCIAL INC	\$196 M disbursed
87	UMPQUA HOLDINGS CORP	\$214 M returned / \$214 M disbursed
88	UNITED COMMUNITY BANKS INC	\$180 M disbursed
90	FIRST MIDWEST BANCORP INC	\$193 M disbursed
91	PRIVATEBANCORP , INC	\$244 M disbursed
93	FULTON FINANCIAL CORP	\$377 M returned / \$377 M disbursed
95	BB&T CORP	\$3 B returned / \$3 B disbursed
96	SYNOVUS FINANCIAL CORP	\$968 M disbursed
98	UCBH HOLDINGS INC.	\$299 M disbursed
99	CVB FINANCIAL CORP	\$130 M returned / \$130 M disbursed
100	FIRST HORIZON NATIONAL CORP	\$867 M disbursed

Bailout Recipients, October , 2010; <http://projects.propublica.org/bailout/list>

Model 7.1.1: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (i) with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin, natural logarithm of Market Capitalisation, natural logarithm of Net Income and Shareholder Return. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum					
	coefficient	std. error	t-ratio	p-value	
const	4,16552	1,12835	3,692	0,0003	***
ROAA	0,442252	0,195556	2,262	0,0247	**
ROAE	0,0109959	0,0138790	0,7923	0,4291	
NIM	-0,160141	0,0442240	-3,621	0,0004	***
SR	0,00342503	0,0229895	0,1490	0,8817	
ln_A	0,798100	0,195633	4,080	6,33E-05	***
ln_MC	-0,0124480	0,154723	-0,08045	0,9360	
ln_NI	-0,371165	0,187352	-1,981	0,0488	**
Unadjusted R-squared = 0,67492					
F-statistic (104, 218) = 4,35196 (p-value < 0,00001)					

Model 7.1.2: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum					
	coefficient	std. error	t-ratio	p-value	
const	8,25863	0,791557	10,43	6,87E-023	***
ROAA	0,0970426	0,0581542	1,669	0,0959	*
ROAE	-0,0205324	0,00909244	-2,258	0,0244	**
NIM	-0,0734608	0,0308957	-2,378	0,0179	**
ln_NI	0,486658	0,0974004	4,996	8,48E-07	***
ln_A	-0,0594430	0,0957633	-0,6207	0,5351	
Unadjusted R-squared = 0,53090					
F-statistic (104, 434) = 4,7229 (p-value < 0,00001)					

Model 7.1.3: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (ii) with natural logarithm of Sum as dependent variable and explanatory variables ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	17,0649	0,174215	97,95	2,76E-211 ***
ROAA	-0,130938	0,157156	-0,8332	0,4055
ROAE	0,0240766	0,0152086	1,583	0,1146
NIM	-0,304997	0,0507347	-6,012	6,01E-09 ***
SR	-0,0405451	0,0229176	-1,769	0,0780 *
Unadjusted R-squared = 0,31156				
F-statistic (103, 267) = 1,17315 (p-value = 0,157)				
Critical value: 1,445993 (p-value = 0,01)				

Model 7.1.4: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (i) with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin, natural logarithm of Market Capitalisation, natural logarithm of Net Income and Shareholder Return. The sample covers data of all 100 banks, during period 2002-2006.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	4,33145	2,71650	1,594	0,1134
ROAA	0,324902	0,332925	0,9759	0,3310
ROAE	0,0179813	0,0176019	1,022	0,3090
NIM	-0,283310	0,0585012	-4,843	3,71E-06 ***
SR	0,0479493	0,0528706	0,9069	0,3662
ln_A	0,856603	0,486400	1,761	0,0807 *
ln_MC	0,0567885	0,216788	0,2620	0,7938
ln_NI	-0,511380	0,504025	-1,015	0,3123
Unadjusted R-squared = 0,71693				
F-statistic (75, 125) = 4,22107 (p-value < 0,00001)				

Model 7.1.5: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (ii) with natural logarithm of Sum as dependent variable and explanatory variables ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2002-2006.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	17,0355	0,271988	62,63	4,77E-100 ***
ROAA	-0,213132	0,187645	-1,136	0,2581
ROAE	0,0617247	0,0181320	3,404	0,0009 ***
NIM	-0,463603	0,0640267	-7,241	3,31E-011 ***
SR	-0,0353008	0,0601676	-0,5867	0,5584
Unadjusted R-squared = 0,40809				
F-statistic (72, 132) = 1,89363 (p-value = 0,00077)				

Model 7.1.6: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (i) with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin, natural logarithm of Market Capitalisation, natural logarithm of Net Income and Shareholder Return. The sample covers data of all 100 banks, during period 2006-2009.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	3,73872	1,32801	2,815	0,0056 ***
ROAA	0,364410	0,322646	1,129	0,2608
ROAE	0,0189549	0,0212375	0,8925	0,3738
NIM	-0,0786680	0,0601645	-1,308	0,1933
SR	-0,00545642	0,0248936	-0,2192	0,8268
ln_A	0,703224	0,235479	2,986	0,0034 ***
ln_MC	0,0215217	0,182589	0,1179	0,9064
ln_NI	-0,280356	0,199505	-1,405	0,1623
Unadjusted R-squared = 0,66948				
F-statistic (56, 131) = 4,73823 (p-value < 0,00001)				

Model 7.1.7: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2006-2009.

Dependent variable: ln_sum				
	Coefficient	std. error	t-ratio	p-value
const	5,11808	0,866434	5,907	1,70E-08 ***
ROAA	-0,0151812	0,138959	-0,1092	0,9131
ROAE	0,0127202	0,0131637	0,9663	0,3352
NIM	-0,0409156	0,0474439	-0,8624	0,3896
SR	-0,00952372	0,0169974	-0,5603	0,5760
ln_A	0,457294	0,0330464	13,84	3,93E-030 ***
Unadjusted R-squared = 0,62016				
F-statistic (54, 180) = 5,44219 (p-value < 0,00001)				

Model 7.1.7: General Least Squares Results for the Full Sample - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (ii) with natural logarithm of Sum as dependent variable and explanatory variables ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2006-2009.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	16,9179	0,220033	76,89	3,74E-140 ***
ROAA	-0,0402865	0,199059	-0,2024	0,8398
ROAE	0,0178461	0,0188513	0,9467	0,3451
NIM	-0,238167	0,0648291	-3,674	0,0003 ***
SR	-0,0421475	0,0241156	-1,748	0,0822 *
Unadjusted R-squared = 0,21607				
F-statistic (53, 181) = 0,941271 (p-value = 0,592)				

Model 7.1.1: General Least Squares Results for Non-TARP banks - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (i) with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin, natural logarithm of Market Capitalisation, natural logarithm of Net Income and Shareholder Return. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum					
	coefficient	std. error	t-ratio	p-value	
const	4,01290	1,36787	2,934	0,0038	***
ROAA	0,608570	0,195878	3,107	0,0022	***
ROAE	0,00976968	0,0137658	0,7097	0,4788	
NIM	-0,238797	0,0447972	-5,331	2,76E-07	***
SR	-0,00164771	0,0223262	-0,07380	0,9412	
ln_A	0,986906	0,198724	4,966	1,52E-06	***
ln_MC	-0,0284049	0,153231	-0,1854	0,8531	
ln_NI	-0,574195	0,179011	-3,208	0,0016	***
Unadjusted R-squared = 0,64409					
F-statistic (98, 190) = 3,50866 (p-value < 0,00001)					

Model 7.1.10: General Least Squares Results for Non-TARP banks - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum					
	coefficient	std. error	t-ratio	p-value	
const	4,04867	1,36071	2,975	0,0033	***
ROAA	0,592256	0,188990	3,134	0,0020	***
ROAE	0,00992543	0,0137057	0,7242	0,4698	
NIM	-0,239630	0,0444524	-5,391	2,04E-07	***
SR	-0,000237005	0,0203992	-0,01162	0,9907	
ln_A	0,958988	0,172191	5,569	8,54E-08	***
ln_NI	-0,572982	0,169648	-3,377	0,0009	***
Unadjusted R-squared = 0,64343					
F-statistic (97, 192) = 3,57175 (p-value < 0,00001)					

Model 7.1.11: General Least Squares Results for Non-TARP banks - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (ii) with natural logarithm of Sum as dependent variable and explanatory variables ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	17,0282	0,163592	104,1	5,77E-198 ***
ROAA	-0,0669302	0,137937	-0,4852	0,6280
ROAE	0,0176431	0,0133343	1,323	0,1871
NIM	-0,334479	0,0469768	-7,120	1,32E-011 ***
SR	-0,0109248	0,0201851	-0,5412	0,5889
Unadjusted R-squared = 0,37657				
F-statistic (95, 234) = 1,4878 (p-value = 0,00844)				

Model 7.1.12: General Least Squares Results for TARP recipients - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (i) with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin, natural logarithm of Market Capitalisation, natural logarithm of Net Income and Shareholder Return. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	4,39764	1,55135	2,835	0,0052 ***
ROAA	-0,286745	0,325073	-0,8821	0,3791
ROAE	0,0398122	0,0233817	1,703	0,0907 *
NIM	-0,00702709	0,0710534	-0,09890	0,9214
SR	0,0514291	0,0365977	1,405	0,1620
ln_A	0,541571	0,300629	1,801	0,0737 *
ln_MC	0,00530100	0,225291	0,02353	0,9813
ln_NI	-0,0953569	0,242504	-0,3932	0,6947
Unadjusted R-squared = 0,64768				
F-statistic (61, 149) = 4,49039 (p-value < 0,00001)				

Model 7.1.10: General Least Squares Results for TARP recipients - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation with natural logarithm of Sum as dependent variable and explanatory variables natural logarithm of Assets, ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	5,38768	0,969632	5,556	9,32E-08 ***
ROAA	-0,227729	0,156027	-1,460	0,1461
ROAE	0,0264434	0,0145991	1,811	0,0717 *
NIM	-0,0505575	0,0545062	-0,9276	0,3548
SR	0,0287233	0,0232567	1,235	0,2184
ln_A	0,440798	0,0351826	12,53	1,42E-026 ***
Unadjusted R-squared = 0,63381				
F-statistic (59, 188) = 5,51528 (p-value < 0,00001)				

Model 7.1.14: General Least Squares Results for TARP recipients - Dependent variable: SUM

This Table displays estimates obtained from fixed effect GLS model. We use equation (ii) with natural logarithm of Sum as dependent variable and explanatory variables ROAA, ROAE, Net Interest Margin and natural logarithm of Net Income. The sample covers data of all 100 banks, during period 2002-2009.

Dependent variable: ln_sum				
	coefficient	std. error	t-ratio	p-value
const	17,3235	0,243982	71,00	3,12E-138 ***
ROAA	-0,101491	0,210355	-0,4825	0,6300
ROAE	0,0136697	0,0196755	0,6948	0,4881
NIM	-0,330292	0,0671772	-4,917	1,90E-06 ***
SR	-0,0528031	0,0301653	-1,750	0,0817 *
Unadjusted R-squared = 0,32807				
F-statistic (58, 189) = 1,59099 (p-value = 0,0106)				