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EDITORIAL

Dear readers!

Current special issue of the journal Corporate Ownership and Control is devoted to the International conference "Financial Distress: Corporate Governance and Financial Reporting Issues" in Rome, Italy, October 17-18, 2013. The world is recovering from a period of tremendous turmoil and instability in the capital markets, it is more important now than ever that governance system, regulations and accounting standards promote right decisions, policies and transparent financial statements that support sustainability and safe economic development. Weak accounting and not accurate financial reporting led companies to wrong governance decisions that provoked an enormous catastrophe which still echoes for the global economy. One of the major problems in modern business world is that most stockholders are divorced from the running of the business so they may not have the appropriate level of knowledge to assess their management's stewardship of their assets. This agent-principal problem can be solved by proper accounting and reporting practices and further improvement of governance standards. So ensuring the integrity of the essential reporting and monitoring systems will require boards of directors to set and enforce clear lines of responsibility and accountability throughout the organization. The main aim of the conference was a search for an effective relationship between management, financial reporting and stability of the economic system in crisis and post-crisis conditions by creating meaningful proposals by representatives of different research schools, regulatory bodies and practitioners. This wide range of relevant issues were highlighted during the conference.

This issue pays attention to the problems of capital structure choice in European emerging economies, non-bank financial companies vs. banks in the European Union, money laundering in cash-based economies in West Africa, risk management lessons, voluntary disclosure of firm, value relevance of financial information, financial risk of Bear Stearns and Lehman Brothers.

Matjaž Črnigoj provides new insights in capital structure choice in European emerging economies by extending the logic beyond the scope of modern capital structure theory, which is based on the assumption that firms are governed by shareholders and follow the goal of maximizing their wealth. *Grażyna Szustak* identifies the roles and motives of banks in the creation and development of EU NBFCs, with particular focus on the regulatory asymmetry between them. It also analyses the currently emerging and possible future negative effects of such cooperation, including a dangerous accumulation of systemic risk. *Ronald H Mynhardt and Johan Marx give* anti-money laundering recommendations for cash-based economies in West Africa. *Gordon Yale, Hugh Grove and Maclyn Clouse develop* key risk management lessons learned from Countrywide which was the largest generator of these risky, "no-doc" (no significant applicant qualifications) subprime mortgages and other high-cost loans which helped precipitate the 2008 financial crisis. *Tutino M., Regoliosi C. and D'Eri A.* found positive correlations between forward looking related variables and other debt related, asset related, profit and loss related and governance variables. *Alessandro Giosi, Silvia Testarmata and Ignazio Buscema* study the usefulness of accounting information perceived by investors and investigate the process of allocation of resources in the capital market in trouble waters. *Hugh Grove and Maclyn Clouse* use financial risk and fraud models to attempt to answer the question as to why Bear Stearns was bailed out, but Lehman Brothers was not. Based on the analysis, was the right or wrong firm bailed out?

We hope that you will enjoy reading the journal and in future we will receive new papers, outlining the most important issues and best practices of corporate governance!

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CONTENTS

RISK AVERSE INSIDERS WITH SPECIFIC OBJECTIVE FUNCTION AND CAPITAL STRUCTURE CHOICE IN EUROPEAN EMERGING ECONOMIES

Matjaž Črnigoj*

Abstract

I provide new insights in capital structure choice in European emerging economies by extending the logic beyond the scope of modern capital structure theory, which is based on the assumption that firms are governed by shareholders and follow the goal of maximizing their wealth. I empirically investigate capital structure choice in these countries assuming an alternative corporate governance paradigm that puts risk averse insiders with specific objective function in the firm's governance structures. I found that firms that are owned by insiders operate with significantly lower leverage, as well as that the probability that a firm uses debt at all drops if insiders are the largest shareholders**.

Keywords: Capital Structure, Emerging Economies, Leverage, Risk Averse Insiders

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1 Introduction

Typically, capital structure decisions have been analyzed by conducting tests of modern capital structure theory. Empirical evidence clearly indicates substantial tax effects (Mackie-Mason, 1990; Graham, 1996; Masulis, 1980; Kemsley and Nissim, 2002), bankruptcy costs effects (Warner, 1977; Altman, 1984; Opler and Titman, 1994; Bradley et al., 1984), agency cost considerations (Long and Malitz, 1985), and mean reversion in debt ratios (Taggert, 1977; Marsh, 1982; Auerbach, 1985; Julilvand and Harris, 1984; Opler and Titman, 1994; Hovakimian et al., 2001; Flannery and Rangan, 2006), thus confirming the trade-off theory. On the other hand, there are several important contributions in favor of the pecking order hypothesis (Shyam-Sunder and Myers, 1999; Bharath et al., 2009).

However, modern capital structure theory does a poor job in explaining capital structure choice in European emerging economies. Delcoure (2007) argues that neither the trade-off theory nor the pecking order hypothesis explain capital structure choice in these countries.[1] She found that modified pecking order proposed by Chen (2004), who rearranged the pecking order, as retained earnings, equity, and as a last resort debt, best describes firms' financing process. Managers in these countries prefer equity to debt financing because it is not contractual obligation and appears to be a free source of capital. What is more, Delcoure (2007) found that leverage ratios in these countries are well bellow the ratios observed in developed countries. Similarly, De Haas and Peters (2006) and Nivorozhkin (2005) observe that despite gradual development of the financial systems in the region enable firms to increase their leverage and bring their capital structures closer to the structures that tend to be optimal according to modern capital structure theory, firms in these countries remain underleveraged.

As already argued in Črnigoj and Mramor (2009), this is not surprising. Modern capital structure theory assumes that firms are governed by shareholders and the goal of the firm being to maximize the value of the firm. However, the firm's behavior can be also significantly affected by other stakeholders, i.e. employees and managers, whose objectives deviate from shareholder value maximization. One have to be aware, that just recently a large amount of the large and medium-sized firms in European emerging economies were privatized by employee and management buy-outs, moreover the power of insiders in these countries is augmented by the remains of the centrally-planned economic system in which equality and workers' rights were promoted.

I empirically investigate capital structure choice in these countries assuming an alternative corporate

[1] The same conclusions can be made based on the findings obtained by Mramor and Valentinčič (2001) and Berk (2006, 2007).

governance paradigm that puts risk averse insiders with specific objective function in the firm's governance structures. Using firm-level data for Central Eastern Europe in the Baltic States (CEB) from EBRD-World Bank Business Environment and Enterprise Performance Survey, BEEPS (III), I test the dependence of firm's leverage and the probability that the firm uses debt, on the fact who owns the firm. I have found that firms owned by insiders operate with significantly lower leverage, as well as that the probability that a firm uses debt at all drops if insiders are the largest shareholders. In all specifications of the empirical models I control for firm-specific capital structure determinants, industry-specific effects and differences in creditor rights between countries that affect the supply of debt.

The paper is structured as follows. In the second section I discuss capital structure choice in firms governed by risk averse insiders with specific objective function. In the third section I look at the data, while in the forth I present the methodology used in the empirical study. In the fifth section I discus the results and the sixth section concludes.

2 Risk averse insiders with specific objective function and capital structure choice

Employees and managers do not follow the goal of maximizing the value of the firm as assumed by modern capital structure theory. Employees are aimed at maximizing wages and minimizing the probability of bankruptcy. Blinder (1993), who formally derived the goal of an employee-governed firm, argues that including employees' welfare in the firm's objective function leads the firm to maximize revenues rather than profits. Managers maximize utility stemming from wages and pecuniary and non-pecuniary benefits, and only then the value of the firm that also affects their compensation. Williamson (1963) showed that manager's expense preference lead a manager-governed firm to maximize utility subject to minimum profit constraint rather than profit. Baumol (1959, 1962) challenged the traditional value-maximizing hypothesis by proposing revenue maximization. Marris (1964) argues that manager-governed firm maximizes the growth rate of the firm (constrained by the minimum level of security). Gordon (1994) argues that manager-governed firms maximize the probability of the firm's long-term survival. The objective functions of employees and managers are also compared to those of the shareholders characterized by higher risk aversion.

2.1 Specific objective function

Agency costs theory (Jensen and Meckling, 1976; Jensen, 1986; Grossman and Hart, 1982; Myers, 1977), as well as models focusing on costly intervention (Stulz, 1990; Hart and Moore, 1998; Berglof and von Thadden, 1994; Dewatripont and Tirole, 1994), emphasizes the role played by debt in reducing agency conflicts between managers and shareholders. It is argued that debt increases efficiency because it prevents managers from pursuing their own interests and forces them to take action to maximize shareholders' wealth, solve collective action problems and change incentives. The problem is that agency cost theory assumes that although managerial behavior is subject to agency problems, shareholders force managers to make capital structure decisions so as to maximize the value of the firm and thus their wealth. The question is why managers, if they have capital structure decisions under their control, would use debt to decrease their own discretion.

This question has been addressed by managerial literature on capital structure choice. Focusing on managerial control motivations, Haris and Raviv (1988) and Stulz (1988) argue that managers use debt to increase their voting power, and Israel (1991) to affect the distribution of cash flows between voting and nonvoting shares in order to influence the outcome of the takeover contest. Zwiebel (1996) argue that managers, trading off their empire-building ambitions and their needs to ensure sufficient efficiency to prevent control challenges, use debt as a credible signal to constrain their future empire building. In contrast to the agency cost theory, in which the discipliner is imposed ex ante, managers voluntarily choose debt, using potential bankruptcy as a mean to credibly commit to foregoing bad investments because of the constant presence of a potential discipliner. Morellec (2004) showed that a manager trading off his empire-building ambitions and the potential loss of control would underlever the firm relative to the optimal capital structure that maximizes the value of the firm. The numerical results of his model suggest that leverage implemented by the manager amounts to only 17,6 percent (10,0 percent when corporate control consideration are not assumed), relative to the 37,0 percent that is the optimal leverage that the manager would implement if acting in the best interests of the shareholders and maximizing the value of the firm. In addition, the results suggest that leverage decisions are related to the degree of managerial entrenchment.

Although some empirical evidence confirmed the hypothesis that shareholders improve their bargaining position by issuing additional debt and reducing the firm's financial flexibility (Bronars and Deere, 1991; Hirsch; 1991; Sarig; 1998; Hanka; 1998; Matsa, 2010), few US CFOs admitted in a 1999 survey conducted by Graham and Harvey (2001) that "A high debt ratio helps us bargain for concessions from our employees". Besides, Kale et al. (2008), investigating the disciplining role of debt and analyzing the relation between employees' productivity and leverage, observe a positive influence on employee productivity only up to some

critical value at which negative effects resulting from the costs of financial distress begin to offset the disciplining incentives. Moreover, the effect of debt on employees' productivity weakens if employees have more outside employment opportunities.

Taking into account employees' nonmonetary restructuring related costs, Chang (1992) identified firm's optimal capital structure investigating firms' restructuring decisions and deriving an optimal contract between shareholders and employees, which includes also capital structure choice. Restructuring involves asset liquidation, job reassignments and reallocations, and cost cutting, while losses include the time and effort that the relocated employees spend to learn new skills for new job assignments, extra effort due to a more demanding working environment, and so on. Because employees have no incentive to restructure, debt is used to implement the first-best restructuring rule. If the expected output exceeds the debt payment, debt can be rolled over and restructuring will not occur; otherwise the firm is forced to restructure because of the potential loss of control. He showed that an ex ante optimal level of debt that balances the financial as well as nonfinancial benefits of restructuring is generally below the level that maximizes the value of the firm because the restructuring-related costs to employees have to be accounted for.

Mramor and Valentinčič (2001) considered the theoretical framework that assumes that employees govern the firm. They argue that because the goal of an employee-governed firm is to maximize wages, its capital structure is characterized by the lowest possible level of debt. Črnigoj and Mramor (2009) provided strong empirical evidence of the negative correlation of leverage and the extent to which firms are characterized by employee-governed behavior. Črnigoj and Mramor (2009) also discuss some different channels through which capital structure choice is affected and identify some differences in the impact of the capital structure determinants proposed by modern capital structure theory. They argue that debt is preferred to equity capital when external sources are required because of the possible dilution of employees' control when issuing equity. Because employee-governed firms have a specific objective function, they expect leverage to be negatively correlated with profitability, while they expect faster-growing firms to operate with higher leverage. In addition, they expect employee-governed firms to be credit rationed and thus bankruptcy cost and collateral to be an important determinant that affects the firm's leverage.

2.2 Risk aversion

As argued in the previous section, a large body of research followed Jensen and Meckling (1976) and used an ex ante efficiency perspective to derive predictions about a firm's capital structure choice in agency setting. The problem is that the agency cost theory ignores the fact that capital structure choice itself is subject to an agency conflict. As argued in the previous section, conflicts of interest over capital structure choice arise because of managers' and employees' disutility derived when subject to the performance pressures resulting from large fixed interest payments (Jesnen, 1986; Grossman and Hart, 1982; Myers, 1977) and managers' preference for job retention (Haris and Raviv, 1988; Stulz, 1988; Israel, 1991; Zwiebel, 1996). This section discusses another important source of conflicts. This is managers' and employees' preference for lower risk due to the under-diversification of their human capital that represents a large share of their wealth.

The portfolio theory states that the optimal portfolio of risky securities will be diversified across all securities available in the market (Markowitz, 1952). However, managers and employees invest a substantial part of their wealth (their human capital) in one firm. Hence, their risk is closely related to the firm's risk. A firm's failure to achieve predetermined performance targets, or in the extreme case the bankruptcy of the firm, results in managers and employees losing their current employment, managers also seriously damaging their future employment opportunities because of loosing reputation. Moreover, risk cannot be effectively diversified by allocating human capital across many investments. An employee or a manager cannot hold more than one job at a time. Compared to the capital market, the labor market is also less flexible, meaning that human capital does not move across firms as financial capital. Finally, human capital investments are more long-term oriented. Managers and employees are therefore expected to diversify risk by other means. One of the ways is by choosing a conservative capital structure.

The first test of whether capital structure decisions are motivated by managerial risk-reduction motives was conducted by Friend and Lang (1988). They showed that a firm's leverage is negatively related to managers' shareholdings, reflecting the greater nondiversifiable risk of debt to managers than outside shareholders and the desires for maintaining low leverage. The existence of nonmanagerial principal shareholders seems to provide little evidence in affecting managers' conservative behavior. However, firms with large nonmanagerial shareholders tend to operate with higher leverage, suggesting that the existence of large nonmanagerial shareholders might force the interests of managers and shareholders to coincide. They also found that in public firms with a principal shareholder, nonmanagerial shareholders' leverage is still negatively related to managers' shareholdings; however, the impact is less significant than in closely-held firms. This reflects only a lesser desire and ability of management in public firms than in closely-

held firms to adjust capital structure according to their own interests.[2]

Strong empirical evidence that the firm's capital structure choice is significantly affected by the degree of managerial entrenchment and that managers seek to avoid debt was provided by Berger et al. (1997). Examining the relations between leverage and corporate governance variables, they found that leverage is lower when the CEO has a long tenure in office, has weak stock and compensation incentives, and does not face strong monitoring from the board of directors or major shareholders. In addition, they investigated whether the leverage changes in the aftermath of events that reduce managerial entrenchment. They found that leverage increases by 13 percent on average when firms are targets of unsuccessful tender offers. The targets that increase leverage use the proceeds to finance large special dividends, equity repurchase offers, or operational restructuring. Although one can conclude that entrenched managers use leverage as a defensive commitment device, the apparent persistence of higher leverage for two years after an unsuccessful takeover suggests that managers tend to move to a more optimal capital structure, which they would have avoided if they had been able to remain entrenched. They also observed an increase in leverage after the replacement of the firm's CEO when the turnover appeared to be forced, as well as after a major stakeholder joined the board of directors. Moreover, they found that firms with leverage deficits react to threats to entrenchment by levering the firms beyond the predicted levels, whereas no significant changes in leverage are observed in firms with leverage surpluses.

In contrast, just a few contributions investigate the impact of employees' risk aversion on capital structure choice. Berk et al. (2007), recognizing the large human costs of bankruptcy, investigated capital structure implications by deriving an optimal employment contract. Their optimal employment contract builds on Harris and Holmstrom (1992). It guarantees employees job security, unless the firm is in financial distress, and pays a fixed wage that rises when employees are more productive than expected. This is why employees become entrenched. However, if the firm cannot make interest payments at the contracted wage level, the employees experience a temporary pay cut. If the firm's performance improves, wages return to the contracted level, and if it worsens further the firm is forced into bankruptcy. Because entrenched employees are being paid more than the value they create, shareholders benefit from filing bankruptcy and normally have no incentive to avoid bankruptcy. Employees are terminated or replaced with more productive ones. As a result, entrenched employees face substantial bankruptcy costs, such as taking a wage cut and earning the current market wage. The implications for optimal leverage occur ex ante because the amount of risk sharing between shareholders and employees depends on leverage. Higher leverage implies a higher probability of bankruptcy and thus lower risk sharing. An optimal capital structure thus trades the benefits of risk sharing against the benefits of debt, such as tax shields, for example. Berk et al. (2007) argued that firms issue only modest levels of debt and will maintain cash balances despite these being associated with tax disadvantages. A firm's capital structure decisions are affected by the firm's idiosyncratic characteristics. Namely, firms with more risk-averse employees will operate with lower leverage. Because such firms attract other more risk-averse employees, they argued that the effect is self-enforcing. Heterogeneity in risk aversion in the labor market thus results in a clientele effect, implying a persistent heterogeneity in capital structure choices among otherwise identical firms. According to their optimal employment contract, firms with higher leverage pay higher wages to compensate employees for potential bankruptcy costs.

The effects of human capital costs associated with bankruptcy in capital structure decisions have been also empirically investigated. Chemmanur et al. (2009) tested whether firms with higher leverage pay their employees more and whether the resulting additional costs are large enough to offset the incremental tax benefits of debt. They found that leverage has a positive impact on average employee pay and that the additional total labor expenses associated with an increase in leverage are large enough to offset all the incremental tax benefits. The evidence thus suggests that the incremental labor costs associated with an increase in leverage are substantial enough to limit the use of debt. They found also that leverage positively affects the magnitude of CEO compensation. Finally, they tested the importance of employees' entrenchment. Examining old versus new economy firms, associated with more and less entrenchment, respectively, they documented significant differences in the effect of leverage on average employee pay and CEO compensation. They observe a positive impact of leverage on average employee pay only in old economy firms. Similarly, the impact of leverage on CEO compensation proves to be significant only in old firms, whereas leverage in new economy firms tends to affect only the cash pay of the CEO.

3 Data and methodology

3.1 Database

The data comes from third EBRD-World Bank Business Environment and Enterprise Performance Survey, BEEPS (III). Even though the survey

[2] However, they found one puzzling piece of evidence. In public firms without principal shareholders, leverage increases with the managers' shareholdings.

encompasses firms from almost 30 transition economies, I restrict the analysis to 8 most advanced European emerging economies – Czech Republic, Hungary, Poland, Slovak Republic, Slovenia, Estonia, Latvia and Lithuania (CEB). Privatization in these countries has been finished and I believe that the economies have been sufficiently transformed to market economies, thus we can expect controlling stakeholders to be powerful enough to behave independently of the central authority commands and that observed capital structures is determined by forces within the firm and not outside the firm, as was often the case in the former economic system.

Beside country composition, BEEPS data takes into account sector, size, ownership, export orientation, and location distributional criteria. The sectoral composition is determined by their relative contribution to GDP, while size composition requires that at least 10 % of the sample is in the small and 10 % in the large size categories. Proper rules are considered also at other distributional criteria.

3.2 Variable definitions

Since BEEPS data were collected by a questionnaire, I have to approximate firm's leverage from the answers on the question about the firm's financing. Firm's leverage is determined by the question in which the proportions of the firm's fixed investments financing sources are revealed (Q.45a). I use two proxies for leverage, first taking into account only borrowing from banks, while in the other I take into account also other debt sources, such as borrowing from family and friends, other money lenders and informal sources, and leasing. I determine a dummy variable $D_{bank\ loan}/D_{debt}$, which takes the value of 1 if the firm has a bank loan/debt and 0 otherwise, using the same question.

Employee-owned firm was approximated by a dummy variable ($D_{employee}$), taking the value of 1 if the largest shareholders are employees and 0 otherwise. It is determined by the question (Q.4a) asking the respondents who best describes firm's largest shareholder(s). In a similar manner, I approximated manager-owned firm ($D_{manager}$).

Then I determined some firm-specific capital structure determinants, i.e. profitability, growth and firm size.[3] Profitability (*PROF*) is approximated using the question on the operating margin – per cent by which sales price exceeds operating costs (Q.14), growth (*GROWTH*) using the question about the change of sales over the last 3 years (Q.55b1), and firm size (*SIZE*) using the question about the estimate of firm's total sales (Q.57acat). According to the trade-off theory, profitability is expected to be positively correlated to leverage because more profitable firms have higher incomes to shield and thus operate with higher leverage. On the other hand, the theory based on agency costs and the pecking order hypothesis predicts negative correlation. According to the theory based on agency costs debt serves as a disciplining mechanism and ensures that managers pursue firm's activities in a manner to maximize shareholders' wealth rather than build empires. Jensen (1986) argues that debt commits to pay out cash, thus reduces the amount available to managers to overinvest. According to the pecking order hypothesis capital structure decisions are driven by asymmetric information. Myers and Majluf (1984) argue that firm's financing process follows a pecking order, forcing the firms to exhaust internal sources first, and when external sources are required, first to issue debt, while issuing equity capital only as a last resort. Growth should be positively correlated with leverage since faster growing firms are expected to need more external finance, and taking into account pecking order hypothesis debt is preferred to equity. However, firms with high growth opportunities borrow less because growth opportunities cannot serve as collateral. Jensen (1986) and Myers (1977) also argue that in firms with high growth opportunities shareholders expropriate wealth from bondholders. Firm size is expected to be positively correlated to leverage. Rajan and Zigales (1995) argue that larger firms tend to be more diversified and thus less prone to go bankrupt.

Besides, I use seven industry dummies, determined by the question in which the respondent indicated the percentages of the sales coming from different industries (Q.2), and proxy for industry competition (*COM*), determined using the question that asks a hypothetical question what will be the result of rising the prices of the firm's main product or service by 10 % (Q.11). Industry-specific effects proved to be significant determinant of capital structure choice, while I use proxy for industry competition to see if insiders to become less conservative in their capital structure decisions when faced with pressure from competition.

Creditors' rights controls are taken from Pistor et al. (2000), who adopted and upgraded La Porta et al. (1997) indices to transition economies. *CREDCON* captures the extent to which creditors can control the bankruptcy process, *COLLAT* captures the existence

[3] There are some other firm specific determinants which have proved to significantly affect capital structure choice. The most important one missed here is tangibility of assets. Trade-off theory suggests that using tangible assets to collateralize the loan decrease bankruptcy costs, while Jensen and Mackling (1976) argue that collateral protects lender from moral hazard problem in conflicts between equity and debtholders. However, capital structure research in European emerging economies mostly failed to document positive correlation (see for example, De Haas and Peeters (2006), Nivorozhkin (2005), Črnigoj and Mramor (2009), Berk, (2006, 2007), and Mramor and Valentinčič (2001). Besides, tangibility of assets is to some extent controlled for by controlling for industry-specific effects.

of legal provision on security interests, while *REMEDY* refer to the sanctions that creditors can impose on management ex-post, which goes beyond the original contractual rights or claims based on the security interest. I approximated legal effectiveness (*LEGALEFF*) by legal effectiveness index from the EBRD Transition Report (EBRD, 2002), as found in Pistor et al. (2000) being among several alternatives the best proxy for legal effectiveness available.

3.3 Descriptive statistics

Despite the fact that BEEPS (III) includes 3.000 firms from CEB, my sample consists of only 2.117 firms. This is due to the missing data for the explanatory variables. Country decomposition is not far away from the relations between size of the countries under investigation, thus the highest number of firms being Polish, followed by firms from Hungary and Czech Republic, while other countries are being represented by approximately similar number of firms. In the sample there are 3,4 % of firms owned by insiders, 1,2 % majority owned by employees and 2,1 % majority owned by managers. Besides, there are 0,14 % and 0,19 % of firms in which managers and employees share the largest ownership share with other stakeholders. Concerning the origin of the firms, 84,3 % of firms are originally private, while only 10,5 % of them are privatized state-owned firms.

Descriptive statistics of the sample are presented in table 1. Taking into account number of employees, 74,8 % of firms can be characterized as small firms, 17,7 % as medium-sized, and 7,5 % as large firms. Median firm has sales from 250.000 to 499.000 USD. Profitability of the firms on average amount to 23,0 % (measured by the margin by which the sales price exceed operating costs). Over the last 3 years firms exhibited 8,1 % growth rate of sales on average.

Table 1. Descriptive statistics

with t-tests for the difference between average leverage among insider-governed firms and firms governed by other stakeholders.

	Mean (t-test)	Median	Std. Deviation
Sales (in $)	-	250.000-499.000	-
Profitability (in %)	23,0	20,0	15,3
Growth (in %)	8,1	0	33,4
Leverage – bank loans (in %)	10,9	0	26,0
Leverage – total debt (in %)	20,1	0	34,0
Leverage of employee-governed firms – bank loans (in %)	4,2 (2,72)	-	12,4
Leverage of employee-governed firms – total debt (in %)	8,9 (2,69)	-	21,2
Leverage of manager-governed firms – bank loans (in %)	11,6 (-0,16)	-	27,3
Leverage of manager-governed firms – total debt (in %)	14,4 (1,32)	-	29,0
N = 2.117			

Source: Author's calculations

Firms on average operate with relatively low leverage. The share of firms' fixed investments that have been financed by bank loans amounts to only 10,9 % on average, while all debt sources together represents only 20,1 % of the financial sources. Moreover, median firm actually does not use bank loans or any other source of debt finance to finance capital expenditures. Analyzing leverage of the firms given their ownership structure, I observe significantly lower leverage in the employee-owned firms, while the difference is not significant for manager-owned firms. Among employee-owned firms there are 5 % more of them without bank loans compared to the firms owned by other stakeholders, and 7 % more without any debt. Again, the difference is smaller for manager-owned firms. Leverage of the manager-owned firms may not differ significantly because some of these firms accumulated higher debt levels in leveraged buyouts resulting in high variability of the leverage ratios.

4 Empirical models and estimation techniques

I investigate capital structure choice in European emerging economies by testing two empirical models. The first model tests for the dependence of firm's leverage on the fact who own the firm, controlling for firm-specific capital structure determinants, industry specific effects, and differences in creditors' rights between countries.

The linear regression model can be written as:

$$LEV = \alpha + \beta_1 D_{employee} + \beta_2 D_{manager} + \beta_{3i} CONTROLS_i + \varepsilon, \quad (1)$$

where *LEV* represents firm's leverage, $D_{employee}/D_{manager}$ are dummy variables taking the value of 1 if employees/managers are the largest shareholders and 0 otherwise, $CONTROLS_i$ represent a vector of firm-specific capital structure determinants (profitability (*PROF*), growth (*GROWTH*) and firm size (*SIZE*)), industry specific effects (7 industry dummies and proxy for competition (*COM*)) and creditors' rights approximated by *CREDCON*, *COLLAT*, *REMEDY* and *LEGALEFF*.

The second model tests for the dependence of the probability that a firm uses a bank loan/debt on the fact who owns the firm. Dependent variable ($D_{bank\ loan}/D_{debt}$) is approximated by a dummy variable taking the value of 1 if the firm has a bank loan/debt and 0 otherwise, while the model includes the same explanatory variables and controls as the first model. Logistic regression model can be written as:

$$\text{logit}(P) = \alpha + \beta_1 D_{employee} + \beta_2 D_{manager} + \beta_{3i} CONTROLS_i + \varepsilon \quad (2)$$

The parameters of the first regression model are estimated by OLS, while estimation technique for the logistic regression model is ML.

5 Results

As hypothesized, insider-owned firms in European emerging economies proved to be very conservative in their financial decisions. When employees or managers hold the largest ownership stakes, thus expecting the firms to be employee or manager-governed, firms do not use debt finance as aggressively as firms that are governed by outside shareholders. As seen in table 2, employee-owned firms tend to operate with significantly lower leverage compared to the firms owned by outside shareholders (coefficient at $D_{employee}$ is significant at 10 % level). Lower leverage can also be observed in firms owned by managers, however the difference is smaller and statistically not significant. The results may be due to the accumulation of debt in recent leveraged buyouts in some of these firms. I estimated regressions explaining firm's leverage also excluding outliers, which were determined by Cook's distance (4/n). After excluding approximately 5 % of the firms (128 in the regression with bank loan and 121 firms from the regression with all debt sources) from the sample, all the coefficients retained the same signs but became highly significant.

Table 2. Linear regression results

in which $LEV_{bank\ loan}/LEV_{debt}$ measures firm's leverage, $D_{employee}/D_{manager}$ is a dummy variable taking value of 1 if the largest shareholders are employees/managers and 0 otherwise. *COM* proxies for competition, *PROF* profitability, *GROWTH* growth, and *SIZE* firm size (I also control for industry specific effects by including seven industry dummies). *CREDCON* captures the extent to which creditors can control the bankruptcy process, *COLLAT* captures the existence of legal provision on security interests, *REMEDY* refers to the sanctions that creditors can impose on management ex-post, which goes beyond the original contractual rights or claims based on the security interest, while LEGALEFF proxies for legal effectiveness.

	$LEV_{bank\ debt}$			LEV_{debt}		
	Coef.	Std. Err.	t	Coef.	Std. Err.	t
$D_{employee}$	-9,03865*	5,08124	-1,78	-11,57864**	6,60429	-1,75
$D_{manager}$	-1,24820	3,88547	-0,32	-7,53464	5,05010	-1,49
COM	0,385778	0,530724	0,73	1,01643	0,6898028	1,47
PROF	-0,0617312*	0,037155	-1,66	-0,0824466*	0,0482918	-1,71
GROWTH	0,0377072**	0,0172643	2,18	0,1170693***	0,022439	5,22
SIZE	1,33729***	0,2375089	5,63	0,9572075***	0,3086996	3,10
CREDCON	-3,02852	3,21724	-0,94	-4,61077	4,18158	-1,10
COLLAT	-0,0404063	0,9184267	-0,04	-1,82734	1,19372	-1,53
REMEDY	4,49239	3,24819	1,38	-1,16615	4,22180	-0,28
LEGEFFE~2001	5,58695***	1,78145	3,14	3,96161*	2,31541	1,71
Const.	-7,64710	1,03766	-0,74	25,62338*	13,48685	1,90
N	2.117			2.117		
Adj. R^2	0,0335			0,0446		

Source: Author's calculations.

As seen in table 3, if the largest shareholder(s) are employees or manager(s), a drop in probability that the firm uses debt finance can be observed, however none of the impacts proved to be statistically significant. In the similar manner as in leverage regression, I tried to address the problem of influential observation and estimated logistic regression without outliers, which were determined by Pregibon's dbeta (3 times of the average value). By doing so, I got very interesting results. In both specifications only employee-owned and manager-owned firms without bank loan/debt were left in the sample because all levered employee-owned and manager-owned firms have been characterized as outliers and thus excluded. The dummy variable $D_{employee}/D_{manager}$ thus perfectly predicts zero probability that the firm has bank loan/debt.

Table 3. Logistic regression results

in which depended variable $D_{bankloan}/D_{debt}$ is a dummy variable taking value of one if a firm has a bank loan/debt and zero otherwise. $D_{employee}/D_{manager}$ is a dummy variable taking value of 1 if the largest shareholders are employees/managers and 0 otherwise. *COM* proxies for competition, *PROF* profitability, *GROWTH* growth, and *SIZE* firm size (I also control for industry specific effects by including seven industry dummies). *CREDCON* captures the extent to which creditors can control the bankruptcy process, *COLLAT* captures the existence of legal provision on security interests, *REMEDY* refers to the sanctions that creditors can impose on management ex-post, which goes beyond the original contractual rights or claims based on the security interest, while LEGALEFF proxies for legal effectiveness.

	$D_{bank\ loan}$			D_{debt}		
	Coef.	Std. Err.	z	Coef.	Std. Err.	z
$D_{employee}$	-0,5904179	0,5580555	-1,06	-0,3815073	0,4507143	-0,85
$D_{manager}$	-0,1576469	0,3880118	-0,41	-0,3349826	0,3395078	-0,99
COM	-0,0547304	0,0540473	-1,01	0,0027203	0,0449621	0,06
PROF	-0,0083797*	0,0046916	-1,79	-0,0030684	0,0035762	-0,86
GROWTH	0,0041661**	0,0016126	2,58	0,007442	0,0014751***	5,05
SIZE	0,1891929***	0,0233775	8,09	0,0929516	0,0198773***	4,68
CREDCON	-0,0364462	0,3346287	-0,11	-0,3724538	0,276316	-1,35
COLLAT	0,0970236	0,098527	0,98	-0,0926084	0,07832	-1,18
REMEDY	0,3149067	0,3339547	0,94	0,1526792	0,2782614	0,55
LEGEFFE~2001	0,3512695*	0,1758721	2,00	0,2177554	0,1495953	1,46
Const.	-3,887338***	1,139330	-3,41	-0,3351529	0,8898104	-0,38
N	2.117			2.117		
Pseudo R^2	0,0629			0,0387		

Source: Author's calculations

It is expected financial decisions of insiders to become less conservative when faced with pressure from competition. Competition (*COM*) should also make rent extraction by insiders less desirable. However, I cannot check this directly because of high multicollinearity when including the interactive terms. Firm's leverage tends to increase when faced with pressure from competition, but I got insignificant and inconsistent results for the impact of competition on the probability that the firm uses debt finance. Acknowledging that, I can confirm that rent execration from insiders is taking place in firms from European emerging economies because firms only when faced with pressure from competition are willing to burden with debt.

All firm-specific capital structure determinants have expected signs and are statistically significant. Profitability (*PROF*) is negatively correlated to firm's leverage and the probability that a firm uses debt finance. This is in line with the pecking order hypothesis which suggests that firms' financing process because of asymmetric information and thus high transaction costs follows a specific hierarchy – using first internal sources available, and only then resort to external finance; first debt and only as a last choice to equity. However, Delcoure (2007) argues that the order of external financing in European emerging economies appears to be different and confirm a modified pecking order hypothesis proposed by Chen (2004) for developing countries. Since bond market in these countries is still developing and banks provide short-term liquidity loans rather than long-term financing, firms have to rely on equity to finance their fixed assets. In addition, shareholder rights are not well protected. Managers thus prefer equity financing since it is not binding and it appears to free source of capital. Not least, this is also inline with employees' and

managers' conservative behavior. Then, I found positive correlation of firm's growth (*GROWTH*) and firm's size (*SIZE*) to firm's leverage and the probability that a firm uses debt finance. Faster growing firms are expected to need more external finance and taking into account huge transaction cost associated with issuing equity in these countries, debt looks often as their only choice. Firm's size in contrast, should positively impact asymmetric information and lowers transaction cost and thus increase firms' ability to reach equity market. Observing positive correlation of firm's size with firm's leverage and the probability that a firm uses debt finance, I can confirm that financing practices observed in European emerging economies rarely include issuing equity. Besides, observing many significant coefficients at industry dummies, I can conclude that the industry specific effects are important determinants as well.

As already found in La Porta et al. (1997) and Pistor et al. (2000), law enforcement (*LELAGEFF*) have large and significant effect on leverage of the firms, as well as on the probability that a firm uses debt finance, while measures for law on books (*CREDCON*, *COLLAT* and *REMEDY*) do not exhibit any expected effects. The result was expected because law enforcement proved to have a much stronger impact on external finance supplied than law on books.

6 Conclusions

Capital structure choice in European emerging economies have been studied so far only by applying empirical test of modern capital structure theory, which is based on the assumption that firms are governed by shareholders and follow the goal of maximizing their wealth. I extend the logic beyond the scope of modern capital structure theory and empirically investigate capital structure choice in these countries assuming an alternative corporate governance paradigm that puts risk averse insiders with specific objective function in the firm's governance structures.

Using firm-level data for Central Eastern Europe in the Baltic States (CEB) from EBRD-World Bank Business Environment and Enterprise Performance Survey, BEEPS (III), I found found that firms owned by insiders operate with significantly lower leverage, as well as that the probability that a firm uses debt at all drops if insiders are the largest shareholders. In the linear regression model, as well as in logistic regression, I found also that firm's leverage decreases with profitability and increases with firm's growth rate and firm's size. Besides, observing many significant coefficients at industry dummies, I conclude that the industry specific effects are important determinants as well. Not least, as already found in La Porta et al. (1997) and Pistor et al. (2000), leverage of the firms, as well as on the probability that firm uses debt finance, is significantly affected by law enforcement in the country, while measures for law on books do not exhibit any expected effects.

Despite one could argue that the results hold only for less than 5 % of the firms, one has to be aware that I consider only firms that are majority owned by insiders that is not so common to observe nowadays. However, similar implications can be observed when insiders hold nonprincipal ownership shares. What is more, ownership is not the only source of power. Insiders can govern the firms also without owning the firms. Approximating the power of insiders stemming from other sources and investigating capital structure implications is an ongoing research that already provided some plausible results (see for example Črnigoj and Mramor (2009)). This will allow us to address larger proportion of firms, to generalize the results and explain firms' conservative financial behavior observed in practice.

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NON-BANK FINANCIAL COMPANIES VS. BANKS IN THE EUROPEAN UNION: A SERIOUS REGULATORY ASYMMETRY WITH CONSEQUENCES

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Abstract

This paper discusses the urgent need to regulate the parallel banking system, an issue which is growing in strength – and which is both topical and very important for the security and stability of the EU financial market. It aims to identify the roles and motives of banks in the creation and development of EU NBFCs, with particular focus on the regulatory asymmetry between them. It also analyses the currently emerging and possible future negative effects of such cooperation, including a dangerous accumulation of systemic risk.

Keywords: European Union, Shadow Banking, Banking System, Basel III, Banking Union, Green Paper, Systemic Risk, Financial Instability

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Introduction

The on-going financial crisis, hailed as the crisis of the 21st century, and its consequences in particular have resulted in the EU regulators undertaking some emergency initiatives aimed at restoring the security and stability of the heavily tarnished banking sector – a sector that occupies a prominent place in terms of the assets of the Community's financial market, as it accounts for as much as 350% of the EU GDP. Among the regulatory changes currently taking place in the banking sector, a particularly important one is the incipient process of creating a banking union, whose primary aim is to rescue banks, especially those in the euro area by means of macro-financial supervision, the European Financial Stabilisation Mechanism, and common deposit guarantees. Furthermore, prudential norms are being tightened further due to the obligatory requirements imposed on banks by Basel III as, in the view of the regulators, Basel II proved too lenient, and the focus on micro-prudential supervision was incorrect. The time has arrived for definancialisation of the European economy as well as some deleveraging activities in the financial sector, a legitimate objective of the revised Basel framework provisions. However, the question is whether the right direction for the regulators is to focus primarily on the banking sector or not. It seems that it is not. While restrictions were being imposed on banking operations, the market failed to observe the growth of the shadow banking sector, also referred to as the parallel banking system or the shadow area, even if it was growing with the active participation of the banks. It has developed and continues to grow since the shadow area's assets in the EU are rising. At the same time, the sector also generates a high, uncontrolled risk which poses a real threat to the financial stability of the EU's financial sector.

Therefore, this paper aims to identify the roles and motives of banks in the creation and development of EU NBFCs, with a particular focus on regulatory concerns. It also analyses the consequences of the banks' actions, which are now coming to the surface. Bearing in mind the above-described objective, the paper defines the concept of shadow banking, the scale of the relevant phenomenon, the risk generated by shadow banking, and the role of regulators and banks in the expansion of the sector. Finally, it assesses the European Commission's efforts in 2012 concerning future regulation.

In order to achieve this objective, several research methods had to be employed, including scientific observation and induction, so as to generalise the information contained in the paper, and deduction in order to draw conclusions and conduct scientific criticism.

1 Shadow Banking in the EU - Overview of the Problem

The definition of shadow banking was proposed by the European Commission in its Green Paper on Shadow Banking (2012). The Commission understands shadow banking as the system of credit intermediation that involves entities and activities outside the regular banking system[4]. Although the

[4] Komisja Europejska. Bruksela, dnia 19.3.2012 r. COM(2012) 102 final

definition is not the most precise one, the European Economic and Social Committee is still of opinion that the lack of a generally agreed definition is no obstacle to the regulation of the shadow banking sector. Instead, the Commission identified two pillars on which the shadow banking system is based. They are:

- the entities engaged in the following activities: offering products with deposit-like characteristics, performing maturity or liquidity transformation, undergoing credit risk transfer, and using direct or indirect financial leverage;
- the activities of such entities, including securitisation, security lending and repurchase transactions[5].

What subjects should be covered by the concept of shadow banking? In principle, all entities other than banks whose activity overlaps with banking activities to any extent. These are: investment funds (e.g. Exchange Traded Funds), hedge funds, private equity funds, including venture capital, financial and credit intermediaries, lending, factoring and lease companies, as well as currency exchange bureaux. [Masiukiewicz, 2011, p. 387]. The list also comprises entities trading in securities, entities providing credit guarantees, insurance and reinsurance companies that issue or guarantee credit products, securitisation companies, Special Investment Vehicles (SIVs), Special Purpose Vehicles (SPVs) and Asset Backed Commercial Paper Programmes. It is worth noting that the above list is not exhaustive. There are many other entities, generally having no specific operational framework or even naming conventions, which constitutes a real threat, especially in the face of crisis. Some EU countries go even further by including on their NBFC lists the postal service (France) or co-operative businesses (UK)[6]. One may also wonder whether this broad circle should not include credit rating agencies, given their functions in the securitisation process.

Consequently, if we consider so broad a list of entities as forming the parallel banking system, as well as the diverse profile of their activities, we can actually derive a broader definition of shadow banking, extending it to all entities other than banks but rendering typical banking services to any extent, both in terms of assets and liabilities, as well as performing intermediary operations (maturity, liquidity and risk transformations; using financial leverage), without being subject to regulation typical of banks, and financial supervision, and thus not ensuring due customer protection in the event of bankruptcy. The latter issue is very important, as numerous institutions from the shadow banking segment start their business activity fraudulently to lure customers using high and guaranteed gains, and then extorting funds from them. As they are not intending to invest the money, they employ creative accounting schemes and present customers with fictitious profits, thus developing typical pyramid schemes. A spectacular example of such activity was the world's largest Ponzi scheme operated by Bernard Madoff, which collapsed at the height of the crisis, in 2008. In that case, losses were suffered by major banks, universities, politicians, etc. More often than not, however, the real victims are consumers who lack adequate knowledge of investment rules, the risks related to investing on the financial market and legal regulations, so are the easiest to beguile. If the institution to which they have entrusted their money in good faith goes bankrupt, it is frequently tantamount to consumer bankruptcy or serious financial losses at best. Dire consequences await not only the investors, but also the customers who use the services of lending companies, since the interest rates in the loan offer are incomparably higher than those of the banks, in some extreme cases reaching 100-120% p.a. Commissions tend to be huge as well. Finally, another dangerous market player is the payment agency, which act as an intermediary in the repayment of debtors' liabilities (most of which are large) to their creditors. Unfortunately, numerous practical examples are known of entities that fail to transfer customer payments to their final addressees. Apart from the need to reduce the risk of NBFCs and regulate their cooperation with the banking sector, customer protection is one of the main reasons that necessitate quick but reasonable regulation of shadow banking entities' operations. Sadly enough, until now it has remained rather on the sidelines of EU financial regulation and supervision. Meanwhile, in Europe, this market is very creative and growing, although the rate of its growth varies across the EU. At the forefront we find the UK, France and Germany [Szpringer, 2009, p. 183]. However, the Netherlands are not far behind. The Financial Stability Board (FSB) estimates the global shadow banking sector assets at USD 67 trillion, a figure equivalent to the annual global GDP, which according to the International Monetary Fund amounted to USD 69.9 trillion in 2011[7]. According to the Bank for International Settlements (BIS), of this figure, in 2011 the euro's share was as much as EUR 15.3 trillion, representing 25% of the total assets of its entire banking sector (estimated at EUR 38 trillion)[8].

Risk is an inherent part of financial sector activities. The statement is fully applicable to shadow

(http://ec.europa.eu/internal_market/bank/docs/shadow/green-paper_pl.pdf)

[5] Szygiel J., UE walka z cieniem, „Bank" 2012, Vol. 4, p. 15.

[6] http://zif.wzr.pl/pim/2012_4_2_1.pdf (30.05.2013).

[7] http://www.bankier.pl/wiadomosc/67-bilionow-dolarow-w-finansowej-broni-masowej-zaglady-2683205.html (30.05.2013).

[8] http://www.obserwatorfinansowy.pl/forma/analizy/banki-wyhodowaly-monstrum-ktore-je-teraz-podgryza/ (30.05.2013).

banking entities, which form, as we can see, a substantial part of both the global and the EU financial market. Excessive risk can lead to the emergence of systemic risk, and consequently to financial crisis, or, in other words, financial instability with all its consequences for the economy and its entities [Davis, 2003, p. 2]. The United States learned only too well about this, since a key factor in the outbreak of the American crisis in 2007 were para-banking activities in the shadow area carried out in cooperation not only with the banking sector, but also the real estate market and insurers. The business of shadow banking entities, diversified, and almost identical to that of the banking sector as it is, as well as its operational scale, expose such businesses to the same risk as banks, namely: credit risk, market risk, operational risk, liquidity risk and other typical risks. The following are considered the most dangerous of shadow banking activities, generating the highest risk: extending maturity dates (combining loans with credit default swaps (CDS)), lowering the degree of liquidity, only partially effective transfer of risk, the use of high and often hidden financial leverage (here it seems appropriate to introduce regulation setting the maximum acceptable leverage ratio)[9]. The risk to which shadow banking entities expose themselves, and errors in risk management, do have an impact on the banking system as well, thus also threatening a stability already battered by the current stability crisis. Both categories, i.e. the banking system and shadow banking interpenetrate each other, and they are linked both directly and indirectly. Typical examples of risk transfer channels to banks include banking loans taken out by NBFCs or contingent liabilities.

2 Overregulation of Banks. Effect of Regulatory Arbitrage. Green Paper on Shadow Banking

Indeed, it was the banks themselves that contributed to the development of the financial market sector that is discussed here. As a result, they are now forced to compete with that sector, and bear the consequences of non-existent risk management. The reasons for this attitude on the banks' side seem obvious. Banks are constrained by financial supervision and legal rigours, especially supervisory prudential standards (the most important EU regulations in the field of standards, supervision and risk are listed in Table 1). However, they have an appetite for risk and wish to increase their rates of return, without the need for costly recapitalisation to compensate for the bank risk level.

Meanwhile, the process has begun under Basel III of deleveraging banking operations, which allows for the strengthening of banks with equity, good quality, changes in liquidity requirements for banks, a gradual move away from risky derivatives to increase lending to businesses, and economic development. It also targets the bank staff remuneration system and provides sanctions for irregularities.[10] There is no doubt that the activities of banks, which play a special role in the economy as institutions of public trust, must be regulated. However, the decision to tighten the rules of banking operations must be preceded by a regulatory impact analysis, as the new controls cannot be too radical. This view is supported, among others, by the European Parliament's Economic and Monetary Affairs Committee (ECON). Over–regulation is therefore as dangerous as under-regulation. Paradoxically, it is the regulated banking sector and its morbid desire for higher profits that became one of the pivotal triggers for the crisis (American subprime loans, investments in junk bonds). In addition, regulation is not enough, as it is also necessary to ensure that the sector could function on the market that is predictable and stable in both legal and economic terms. It is also known that focusing on micro-prudential supervision coupled with underestimation of macro-prudential supervision has proved a failure. Now, crisis-time supervisory changes are meant to save the day, most importantly including the banking union with the European Central Bank (ECB) as a macro-level supervisor for banks in the euro area.

While acting within the constraints imposed by Basel II, and its current amendment known as Basel III, banks are, unfortunately, deliberately moving part of their business to the freely regulated, and sometimes completely unregulated, shadow area. In fact, banks are the main entities to set up NBFCs. The FSA has established that the share of British banks in shadow banking assets in the UK is as high as 92%, whereas the assets of Italian banks in the Italian shadow banking market account for 98%. So it is obvious that the banks do whatever they can to bypass the prudential standards that bind them. For example, if an investment bank sets up a Structured Investment Vehicle (SIV) – a conduit which is very popular among shadow area entities – and starts transferring its balance sheet assets there, then its operating freedom and financial leverage will increase, while the solvency will remain at the level required by the supervisor. On the other hand, the SIV will use the bank assets thus purchased to issue debt securities, whose rating will be high, because the company is a bank-owned vehicle. Low risk means low interest rates. And the return on investments (financed with the proceeds from the issue and sale of commercial papers) on derivative instruments are huge during an economic boom. In such a situation, it is hardly surprising to see similar measures undertaken by commercially-minded banks.

[9] http://www.obserwatorfinansowy.pl/forma/analizy/shadow-banking-czyli-pieniadze-w-strefie-ryzyka/ (27.05.2013).

[10] Minkina P., Lekarstwo na kolejny kryzys. „Bank" 2013, Vol. 5, p.11.

Table 1. EU regulation in the field of supervision, prudential standards and banking risk management

Banking union (draft): - First pillar: Starting from 2014, the ECB will exercise financial supervision over banks in the euro area (the right to license, control and punish banks, as well as to decide on their recapitalisation) - Second pillar: recovery and resolution plan - Third pillar: joint guarantee fund
CRD IV: Capital Requirements Directive - CRD / Capital Requirements Regulation – CRR (adopted by the European Parliament, pending approval of the Council of the EU): - implement the provisions of Basel III on the level of EU legislation
Council Regulation (EU) no 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board
Regulation (EU) no 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending decision no 716/2009/EC and repealing Commission decision 2009/78/EC
Regulation (EU) no 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macroprudential oversight of the financial system and establishing a Euopean Systemic Risk Board
Directive 2006/48/EC relating to the taking up and pursuit of the business of credit institutions (amended by: Directive 2009/83/EC; Directive 2009/111/EC; Directive 2010/76/EU). - EU banking law - legislation concerning licensing and operations of credit institutions - rules allowing the exercise of prudential supervision over credit institutions - establishment of the consolidated supervision framework - division of supervisory powers between the national supervisory authorities of the home and host Member State - **shall be replaced with a CRD IV**
Directive 2006/49/EC of the European Parliament and of the Council of 14 June 2006 on the capital adequacy of investment firms and credit institutions (amended by: Directive 2009/27/EC; Directive 2009/111/EC; Directive 2010/76/EU): - capital adequacy requirements for credit institutions - rules concerning the exercise of prudential supervision over credit institutions - **shall be replaced with a CRD IV**
Directive 2002/87/EC of the European Parliament and of the Council of 16 December 2002 on the supplementary supervision of credit institutions, insurance undertakings and investment companies in a financial conglomerate and amending Council Directives 73/239/EEC, 79/267/EEC, 92/49/EEC, 92/96/EEC, 93/6/EEC and 93/22/EEC, and Directives 98/78/EC and 2000/12/EC of the European Parliament and of the Council (changes: Directive 2010/78/UE) - definition of a financial conglomerate - harmonisation of supervision over financial conglomerates in the EU

Source: Directive 2006/48/EC (OJ L 177 p. 1, 2006); Directive 2006/49/EC (OJ L 177 p. 201, 2006); Directive 2002/87/EC (OJ L 35 p. 1, 2003); Regulation (EU) no 1092/2010 (OJ L 331/1, 2010); Regulation (EU) no 1093/2010 EC (OJ L 331/12, 2010); Council Regulation (EU) no 1096/2010 (OJ L 331/62, 2010); Pawlik K., Droga do CRD IV/CRR. "Bank" 2013, Vol. 5, p. 12.

It seems that the best solution will be to deprive them of such opportunities by means of tightening up EU law. Standards creation is insufficient in itself, if the regulators fail to regulate the activities of banks in a comprehensive way (previous Basel Accords were strict about the regulation of the banks' balance sheets, while omitting their off-balance sheet activities)[11] and do not prevent the circumvention of such standards. Therefore, banks are not, as it has been demonstrated above, the sole culprits of the uncontrolled growth of the shadow banking market. Previous actions of the regulators are incommensurate with the development of NBFCs. Now it is time to change the current state of affairs. It is all about implementing restrictions on NBFC activities, which are similar to those imposed on banks, and thus working towards improved security and reduced leveraging. An effective system for the control and monitoring of banks' links with the shadow area should also be implemented, with a simultaneous assessment of the effects of such cooperation (the actual level of financial and non-financial risk thus generated, detection of systemic risk accumulation, and a strong role for macro-prudential supervision). It is not an easy task. Firstly, the NBFC market must be thoroughly diagnosed: the

[11] Opinia Europejskiego Komitetu Ekonomiczno-Społecznego w sprawie zielonej księgi w sprawie równoległego systemu bankowego COM(2012) 102 final, Dziennik Urzędowy C 011, 15/01/2013 P. 0039 – 0043.

existing laws governing the legal framework for NBFC operation must be analysed, and possible legal solutions thought through. It is because we would like to avoid the total elimination of such entities from economic life, as some of them do pursue honest business activities, boosting the competition and fuelling the banks' efforts to win new business.

Nowadays, banks are faced with the powerful market player that the shadow banking sector has become, a player partly created though their own active participation. Lending operations (loans and borrowings), deposit activities and payment handling services are also in their domain today. A good example is PayPal, which in 2012 handled transfers worth USD 145 billion. In order to compete with that technological company, banks had to reduce their fees for transfers and resign from commissions on online payments. Another good example is Google Wallet – the service for handling payments via NFC phones instead of payment cards. The interchange fee for card transactions in Poland is among the highest in the EU, as it ranges between 1.6% and 1.65%, shared by the bank and the card issuer. Banks must therefore choose: retail chains and long-time co-operants, or Visa and MasterCard. Besides, retail chains also compete with banks. To quote just one example, the Tesco chain in the UK has established its own mini-bank. It issues credit cards, grants consumer and mortgage loans, and accepts deposits. And its business is growing fast[12].

Obviously, the European Commission can see the existing problem, but it has done little to solve it. The concept of shadow banking emerged in 2007, while the causes were being explored of the current crisis, known as the financial crisis of the 21st century. It was only in 2012 that the Green Paper on Shadow Banking was published, but it is really difficult to find any specific proposals for regulation there. It only indicates some general ways to solve the problem of legislation: indirect regulation of shadow banking activities with the use of regulation concerning banks and insurers; extension of the existing prudential regulation applicable to banks to shadow banking; and direct regulation specifically directed at various types of shadow banking activities. 2012 also saw the completion of the EU shadow banking market overview carried out by the Basel Committee on Banking Supervision (BCBS), International Organisation of Securities Commissions (IOSCO) and the Financial Stability Board (FSB). It is a matter of urgency now to publicise their findings, compile a precise and exhaustive list of activities that need new or improved regulation, and also identify the impact of the proposed regulatory arrangements on the EU financial market (which will not be easy; yet, failing that, the shadow banking sector may be regulated in an incorrect way, which could be even worse for the financial stability than the current lack of regulation of the sector), and only then construct regulatory solutions. It seems, however, that we should not expect appropriate solutions soon, especially as the shadow banking entities are trying to delay the inevitable progress towards the introduction of regulation that will hamper their activities.

Conclusions

There is nothing inherently wrong with the existence of the shadow banking segment. Such entities have their advantages, as their offers complement the banks' product portfolios and fuel competition. Also, there is social demand for such businesses, and, last but not least, their formation is legal. Consequently, any future regulation of their activity cannot lead to the entities' disappearance from the financial market altogether, but only increase the security and stability of their operations by implementing appropriate risk management procedures, adequate prudential standards, and deleveraging. What is highly disturbing is the fact that the entities from the sector discussed here are operating freely and increasing their scale of operations. As a result, they have accumulated unknown sources of risk, thus increasing systemic risk and the extent of irregularities that are now being discovered. This, on the one hand, poses a threat to customers, and, on the other hand, it could lead to the outbreak of another dangerous financial crisis. Given that, it does not seem safe to leave NBFCs outside bank-like regulation and oversight system. If the issues discussed here are resolved, it will also prevent banks from circumventing obligatory prudential standards, and thus put a stop to the risk-generating, out-of-control and dangerous process of diverting a substantial part of mainstream banking activities to the parallel banking system.

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ANTI-MONEY LAUNDERING RECOMMENDATIONS FOR CASH-BASED ECONOMIES IN WEST AFRICA

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Abstract

Money laundering can boost corruption, worsen poverty, and bankrupt vulnerable financial institutions. In view of this, a study was conducted amongst the banks in West Africa, in cash-based economies, with the objective to ascertain the level of their Financial Action Task Force implementation.
The study found that the implementation of the Financial Action Task Force recommendations in these countries was at different stages due to these countries being cash-based economies. The majority of these countries have anti-money laundering legislation but lack the capability to monitor and counter money laundering activities. This may be ascribed to a lack of adequate resources, expertise, investigations and prosecution capabilities.
Some amendments to the Financial Action Task Force recommendations are proposed to incorporate cash-based economies in order to effectively combat money laundering.

Keywords: Money Laundering, Cash-Based Economies, Anti-Money Laundering, Corruption, Financial Action Task Force, Corruption Perception Index, Financial Intelligence

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1 Introduction

Money laundering (ML), if not controlled and eliminated, boosts corruption, worsens poverty, bankrupts vulnerable financial institutions, destabilises countries and dries up donations to countries involved – at the expense of ordinary citizens.

Today, economies around the world can be classified as credit-based, cash-based or a combination of cash-based and credit-based economies. Credit-based economies come to exist when the country has a credit history verification process. Credit histories are built up over time as and when people use credit to purchase goods and services and generate a payment history in the process (Kerala Investor, 2010).

Consumers increasingly choose to use debit cards, credit cards and mobile money services to complete transactions. In addition, businesses such as retail stores and public transportation services experience increasing costs and safety risks in handling cash, and therefore prefer digital transactions instead (Björling, 2012).

Moshi (2012) defines a cash-based economy as: "An economy in which more than 50 per cent of the economic transactions in all sectors are conducted in cash, and in which the majority of the population are unbankable". In these economies, the services (for example water and electricity) provided by formal institutions are also paid for in cash by the beneficiaries of such services. In addition, formal government institutions such as revenue and customs departments may collect taxes in the form of cash. Even clients who have bank accounts, have to draw cash in order to pay for services or tax (Moshi, 2012).

Masare (2012) is of the opinion that uncontrolled cash transactions, which are legal in many countries, are facilitating ML. The reason given was that it is often difficult to detect suspicious transactions. Masare (2012) further states that developing countries are facing the threat of ML activities as a result of their cash-based economy. ML can be defined as the process where the proceeds of crime are transformed into apparently legitimate money or other assets. The process comprises three phases, namely placement, layering and integration (Duhaime's Law, 2012). Money launderers often try to "clean" their money through gambling, building real estates and investing in industries.

In response to mounting concern over ML, the Financial Action Task Force on Money Laundering (FATF) was established by the G-7 Summit in 1989 (FATF, 2010). HM Revenue Services (2010) describes FATF as an inter-governmental body which develops international standards to combat ML and

terrorist financing. During April 1990, the FATF issued a report containing a set of "Forty Recommendations" which were intended to provide a comprehensive plan of action needed to fight ML. During February 2012, the FATF completed a thorough review of its standards and published the revised FATF Recommendations.

According to Addo-Larbi (2010), West Africa is considered to be one of the poorest regions in the world. This region consists of 16 countries, namely Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea Bissau, Guinea Conakry, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.

West Africa faces a challenge with regard to ML due to the country's vulnerability to organised crime and limited capacity to respond effectively to this threat. In addition, the people behind ML are using West Africa as a conduit. None of the West African countries can therefore take the issue of transnational organised ML for granted. Moshi (2012) agrees that cash-based economies are more prone to ML. The reasons cited are the dominance of cash transactions and the narrowness of the financial sector.

Concerns were however raised about the difficulties of implementing the FATF recommendations in developing countries (CENFRI, 2008). One of the main concerns was the possibility that inappropriate implementation of FATF standards may exclude the financially vulnerable and marginalised citizens of such countries from the formal financial system.

In addition, the concern is that this may undermine the social and political stability as well as the economic development of these West African countries. Zerzan (2011) agrees with this view and states that implementing these recommendations in countries requires substantial effort and coordination, budgetary dedication and political will.

In view of the concerns raised with implementing the FATF recommendations, a study was conducted amongst the banks in West Africa with the objective to ascertain the level of their FATF implementation. A second objective was to use, amongst other, the results of the study to provide additional recommendations in order to facilitate FATF implementation in cash-based economies.

2 International anti-money laundering

In order to combat ML, terrorist financing and the financing of the proliferation of weapons of mass destruction require the co-operation of countries worldwide. In fact, this has to be done in a globally coordinated and comprehensive manner (Goredema, 2003).

The FATF assists by providing 40 plus 9 recommendations for combating the afore-mentioned activities.[13] During 2012, FATF had 36 members and the co-operation of 180 countries in their global network (FATF, 2010).[14] At the heart of the FATF 40 plus 9 recommendations is that all countries should introduce legislation that criminalises ML. The basis for this requirement is the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988 (the so-called Vienna Convention) and the United Nations Convention against Transnational Organized Crime, 2000 (the so-called Palermo Convention), as well as the 1999 United Nations International Convention for the Suppression of the Financing of Terrorism.

The FATF recommends that each country establish a Financial Intelligence Unit (FIU) in order to receive, analyse and monitor information about any suspicious transaction reports (STRs) (FATF, 2010). STRs deal with possible transfers of funds that might be the proceeds from criminal activities or terrorist financing. Legislation needs to protect financial institutions as well as their directors, officers and employees from criminal and civil liability for breach of any restriction on the disclosure of information, even if they do not have knowledge of the details of the suspected possible criminal or terrorist activities. Equally they should be prevented by law from disclosing that they have submitted an STR to their FIU.

Financial institutions may not open or operate accounts for customers on an anonymous basis or in fictitious names. To this end, evidence of the identity of the person or legal entity is required, which is referred to as Know Your Customer (KYC). In the case of individuals, this may include their identity documents, proof of physical address and/or proof of being registered with their tax authority.

In the case of legal entities such as trusts and companies, their constitutions or founding documents, proof of registration in addition to the documents required from individuals may be required. The financial institution must therefore take reasonable measures to ensure that it is knowledgeable about the ownership and control of any business organised as a legal entity.

Recommendation 5 of the FATF 40 esrecommendations specifically suggests that financial institutions must conduct customer due diligence (CDD) measures. CDD requires that the financial institution must obtain information about the purpose and intended nature of the business relationships of its customers on a continuous basis.

However, ML may also be committed by using non-financial institutions such as attorneys, notaries, accountants, estate agents, automotive dealers, dealers

[13]The FATF recommendations are provided at www.fatf-gafi.org/recommendations and these are updated regularly.

[14] Details of the members and observers of the FATF are published on their website at http://www.fatf-gafi.org/pages/aboutus/membersandobservers/

in precious metals and precious stones, as well as casinos. FATF recommendation 12 thus equally requires such non-financial institutions report any suspicious transactions to their applicable FIUs.

The FATF recommendations may be applied relatively effectively in countries where financial institutions are used in order to effect payments and financial transfers between businesses and between individuals. However, the challenge is finding ways of applying the 40 FATF recommendations in cash-based economies that do not rely on financial institutions as part of their payment system and financial intermediation process.

The International Monetary Fund (IMF) provides technical assistance to members of the IMF on a voluntary, cooperative basis on how to implement AML and how to combat the financing of terrorism (CFT). The IMF has 188 members worldwide and all the West African countries listed above are members of the IMF. Therefore, West African countries could benefit from the technical assistance of the IMF in implementing AML and CFT.

The World Bank by means of its Financial Market Integrity Group equally provides assistance to countries regarding AML and CFT. This includes technical assistance, assessments and policy development. Technical assistance includes country-specific laws and/or legislation, implementing institutional frameworks and regimes, developing financial intelligence capacity and enhancing the ability of the judiciary to investigate and prosecute AML and CFT. The assessments are done with a view to identify flaws or gaps in a country's AML and CFT frameworks, and to provide training where necessary. Reports for four of the West African countries have been published, namely Burkina Faso, Mauritania, Niger and Sierra Leone.

In the United States of America (USA), AML is combatted, inter alia, using the Bank Secrecy Act (BSA) and the Patriot Act. The Patriot Act strengthens the BSA and imposes a number of AML obligations directly on broker-dealers, including:

- AML compliance programmes;
- customer identification programmes;
- monitoring, detecting, and filing reports of suspicious activity;
- due diligence on foreign correspondent accounts, including prohibitions on transactions with foreign shell banks;
- due diligence on private banking accounts;
- mandatory information-sharing (in response to requests by federal law enforcement); and
- compliance with "special measures" imposed by the Secretary of the Treasury to address particular AML concerns.

Several agencies in the USA handle investigations and prosecutions, ranging from the US Department of Justice, the Federal Deposit Insurance Corporation, the Federal Reserve System, the Financial Crimes Enforcement Network, the Financial Industry Regulatory Authority, the National Credit Union Administration, the Office of Comptroller of the Currency, and the Office of Thrift Supervision and the Securities and Exchange Commission. These agencies have successfully prosecuted several financial institutions since 2004 for breaches regarding AML and CFT in the USA.

Europe does not have a perfect system for managing AML. The European Union (EU) AML proposals, political will, cross-border cooperation and proof of beneficial ownership are regarded by Transparency International (2008) as shortcomings of AML in Europe. According to both Transparency International and the European Commission, beneficial ownership registries would be a cost-effective mechanism for preventing ML. An improved fourth AML directive was expected to be announced for the EU during 2013.

According to the FATF Mutual Evaluation of the Russian Federation, Russia had, in a short space of time (2003 to 2008), implemented and enhanced its AML/CFT system and has done so in less time than many other countries. The implementation of Recommendation 33 and Special Recommendations III, VI, VIII and IX was found lacking, especially given the most important ML and terrorist financing techniques that Russia faced.

Special recommendation III requires the freezing and confiscation of terrorist assets, whilst special recommendation VI requires that any individual or legal entity providing a service for the transmission of money must be licensed or registered, and fully subject to all FATF recommendations. Special recommendation VIII requires that all non-profit organisations must be protected from being abused as a conduit for terror financing. Special recommendation IX calls for the detection of physical cross-border transportation of currency and bearer-negotiable instruments that may be related to AML or CFT.

Some countries in Africa have no national identity system and no proper address verification documentation (KPMG, 2011). This makes KYC and CDD in such countries virtually impossible, thus complicating AML and CFT measures. During 2011, KPMG conducted a survey among banks about their AML practices. According to KPMG (2011), the profile of AML in Africa and the Middle East has risen since 2007, with 79 per cent of respondents claiming their board of directors took an active interest in AML compared to 54 per cent in 2007.

South Africa (by means of its Financial Intelligence Centre (FIC) and Nigeria (by means of its Central Bank of Nigeria (CBN)) have taken the lead in Africa by requiring approval of the AML policies implemented by boards of directors and reviewing it annually during inspections by their regulators. Eighty five per cent of KPMG African and Middle East respondents have a formal programme for monitoring the effectiveness of their AML systems and controls.

3 AML in West Africa

According to Moshi (2007: 7-10), Africa faces the following challenges in preventing and combatting ML and combatting the financing of terrorism:

- poverty and a lack of skilled human capital;
- law enforcement capacity constraints coupled with resource constraints of low-income countries making it difficult to implement all the FATF 40 + 9 measures simultaneously;
- cash-based and parallel economies (predominantly informal sectors) in African countries, which enable money to circulate outside the conventional financial system, thus resulting in cash transactions that are neither traceable nor documented;
- greater access to regulated and accessible financial services, which cannot be achieved in the short term;
- money being moved across borders easily and without drawing the attention of authorities; and
- several other law enforcement priorities besides ML and CFT.

Although the West African countries are not members of FATF, fifteen of the Western African countries decided on 10 December 1999 to establish the Inter-Governmental Action Group against Money Laundering in West Africa (GIABA). Mauritania could not be found on the list of members (GIABA 2012: 10). GIABA became an associate member of the FATF in June 2010 and in addition to strengthening the cooperation between its members, also has the objective of protecting members' national economies and financial markets against the proceeds of crime and CFT.

Moshi (2012) agrees that cash-based economies are more prone to ML. The reasons cited are the dominance of cash transactions and the narrowness of the financial sector. Concerns were, however, raised about the difficulties of implementing the FATF recommendations in developing countries (CENFRI, 2008).

One of the main concerns was the possibility that inappropriate implementation of FATF standards may exclude the financially vulnerable and marginalised citizens of such countries from the formal financial system. In addition, the concern is that this may undermine the social and political stability and the economic development of these countries. Zerzan (2011) agrees with this view and states that implementing these recommendations in these countries involves a lot of work and requires enormous coordination, budgetary dedication and political willingness.

In view of the concerns raised with implementing the FATF recommendations, a study was conducted amongst the banks in West Africa (GIABA countries) with the objective to ascertain the level of their FATF implementation. A second objective was to use, amongst others, the results of the study to suggest amendments to the FATF recommendations in order to facilitate implementation in cash-based economies.

4 Methodology

Money launderers have the ability to penetrate almost any financial system in the jurisdictions around the world. There is no precise, universal method to measure the vulnerability of a financial system.

The Bureau of International Narcotics and Law Enforcement Affairs (US Department of State, 2012), however, has developed a checklist of factors that contribute to making a country or jurisdiction particularly vulnerable to ML or other illicit financial activity. In the study being reported here, this particular checklist was used as a basis and the following aspects of the checklist were used:

- establish where the GIABA countries feature on the Corruption Perception Index (CPI);
- establish to which extent ML activities are criminalised;
- identify the existence of rules that obstruct law enforcement investigations or reporting of suspicious transactions by both banks and non-bank financial institutions;
- identify the requirements to disclose the beneficial owner of an account or the true beneficiary of a transaction;
- identify whether effective monitoring of cross-border currency movements exists;
- identify whether there are any reporting requirements for large cash transactions;
- establish how non-bank financial organisations are regulated and monitored;
- establish whether supervisory authorities are adequately staffed, skilled and committed;
- establish whether the relevant countries are financial centres or tax-havens; and
- establish whether these countries are perceived to be corrupt.

Based on the checklist above, a wide-spread review of applicable information was conducted to obtain the relevant information about each of the countries in GIABA with the objective to ascertain the level of their FATF implementation.

In addition, structured interviews were conducted with individuals from the different countries using the checklist above. The interviews conducted were strictly confidential and, at their explicit request, none of these individuals were named.

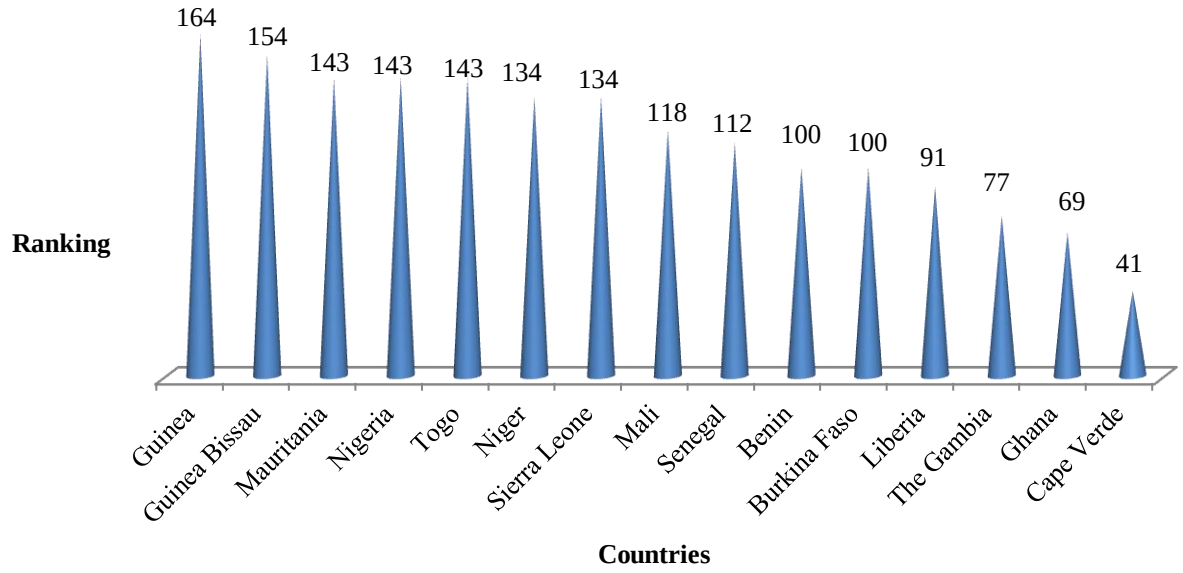
5 Findings

As mentioned in the research methodology above, research was conducted to obtain information about factors that contribute to making a country or jurisdiction particularly vulnerable to ML or other illicit financial activity.

Figure 1 below depicts the findings of the study with regard to the ranking of the GIABA countries.

On the x-axis, Figure 1 shows the GIABA countries surveyed. On the y-axis, the individual country rankings are shown. The CPI contains 174 different countries (Transparency International, 2012). In this index, the higher the ranking, the higher the perceptions of being corrupt. The GIABA countries are ranked between 41 and 164 with 12 of the GIABA countries featuring in the top half (87 and above) of the CPI.

Figure 1. Corruption Perception Index



Source: Transparency international, 2012

Figure 2 below depicts the FATF implementation profile of the GIABA member countries as obtained through the research conducted for this study. For various reasons, none of the countries' individual results are shown and the results for the GIABA region as a whole are depicted.

The following points highlight the information that was obtained during the research:

- it appeared that all but one of the GIABA member countries had started implementing the FATF recommendations;
- the level of implementation varied from country to country;
- three of the 15 GIABA member countries were deemed to be regional financial centres, making them possible ML targets;
- all of the GIABA member countries were deemed to be predominantly cash-based economies, making them vulnerable as possible ML targets;
- twelve GIABA member countries had AML legislation and a Financial Intelligence Unit, which left the region as a whole vulnerable;
- by their own admission, only six of the GIABA member countries had sufficient expertise and resources to implement AML procedures, which enhanced the risk of ML activities in the other member countries;
- one of the GIABA member countries had yet to pass legislation that would criminalise ML, which posed a serious threat to the vulnerability of the region;
- in ten of the GIABA member countries, AML procedures were also applicable to non-banking entities, which posed a serious threat to the vulnerability of the countries involved as well as the region;
- only five GIABA member countries had AML investigation capabilities, which posed a serious threat to the vulnerability of the countries involved as well as the region;
- ongoing monitoring of AML activities was found in six GIABA member countries, making the other countries vulnerable as possible ML targets;
- actual AML prosecutions had only occurred in six GIABA member countries, which could indicate that possible money launderers might not be discouraged to engage in ML activities in the region; and
- actual AML convictions had only occurred in four GIABA member countries, which could indicate that possible money launderers might not be discouraged to engage in ML activities in the region.

In addition, the participants in the study were of the opinion that the current FATF recommendations were not suited for implementation in cash-based economies. The reason given was that the economies of cash-based economies are not as sophisticated as those in the developed countries, which, to a large

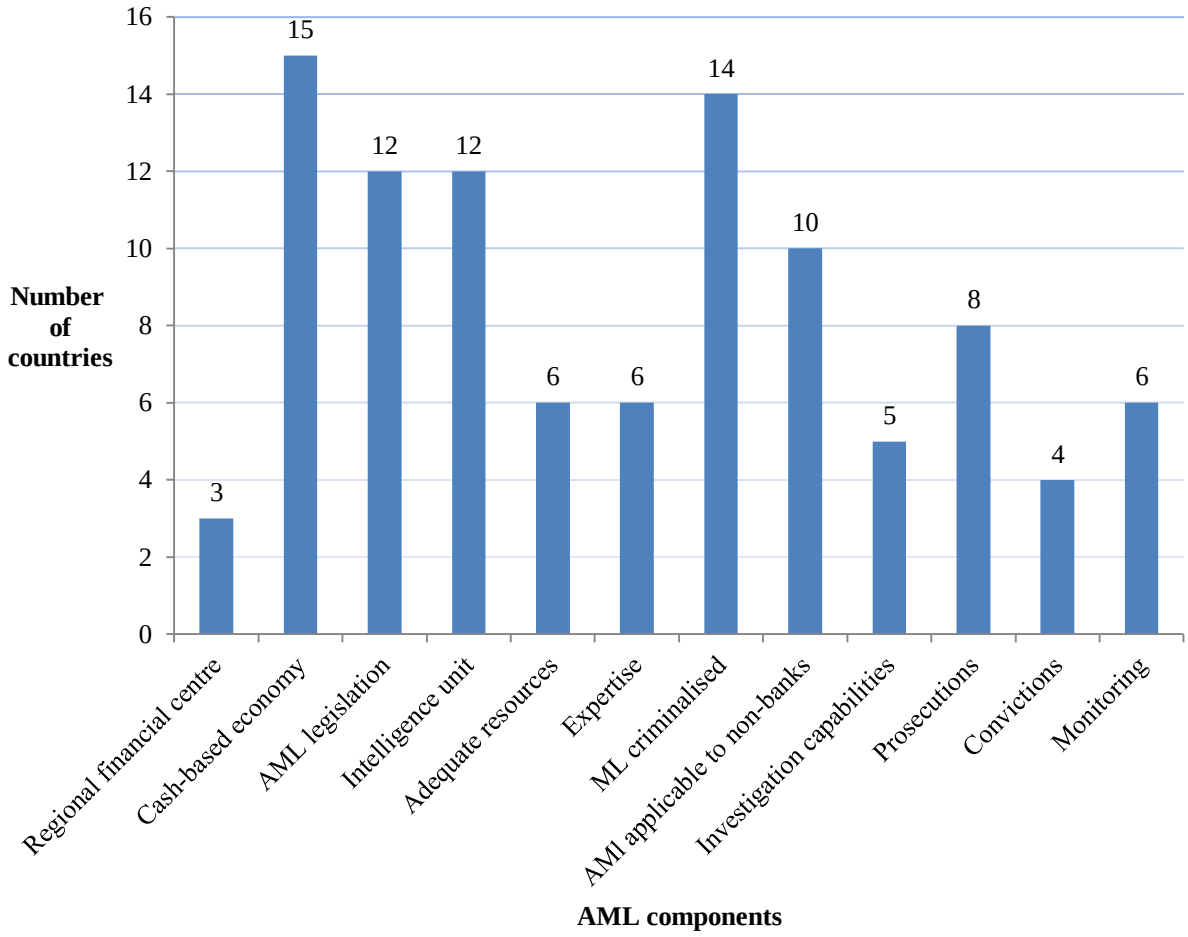
extent, dilutes the advantages of the implementation of the current FATF recommendations.

The participants were also unanimous in expressing a definite need for guidance or recommendations on the combating of ML in cash-based societies.

The conclusions drawn from the findings are the following:

- the findings of the study seemed to support the Corruption Perception Index ratings of the different GIABA member countries;
- although some GIABA member countries were on track to full implementation of the FATF requirements, the region as a whole was vulnerable to ML activities;
- the lack of sufficient legislation, expertise and resources made the GIABA member countries a target for potential ML in the region;
- the lack of AML procedures, AML monitoring, investigating capabilities, prosecutions and convictions made the GIABA member countries an even larger target for potential ML in the region; and
- there seemed to be a need for additional FATF recommendations specifically aimed at cash-based economies.

Figure 2. FATF implementation profile of GIABA member countries



Source: Authors' own compilation

6 Recommendations

The recommendations of this study focus on providing general guidelines for the implementation of AML measures in cash-based societies, in particular in the GIABA member countries. These recommendations could be incorporated within the current FATF recommendations to facilitate their implementation in cash-based societies. The following recommendations are proposed:

6.1 Political agenda

Countries should have the political will to fight ML. Governments should adopt a culture of zero tolerance with ML and should institute efforts in this direction with the passing into law of robust and resilient anti-money laundering legislations. This should also include adequate cooperation between government departments and agencies, and efficient investigation capabilities as well as fighting corruption. In addition,

countries should establish networks, international cooperation building as well as working closely with its allies to address the problem.

6.2 Improve legislation, implementation and supervision

As mentioned above, governments should ensure the implementation of robust law and regulations. This study has however shown that the GIABA member countries have not all implemented applicable laws and regulations. A concerted effort should be made to ensure that applicable government agencies tasked with AML are adequately resourced and that the correct level of expert staff are employed. Monitoring of possible ML and the reporting thereof should receive priority.

Governments should make sure that all role players are supervised to ensure the effective combating of ML. These role players include accountable institutions such as attorneys, estate agents, financial traders, banks, long-term insurers, gambling businesses, dealers in foreign exchange, members of a stock exchange and the money remittance industry.

Governments should also have measures in place to detect the physical cross-border transportation of currency and other assets. Countries should ensure that their authorities have the legal authority to stop or restrain currency or other assets that are suspected to be related to ML, or that are falsely declared or disclosed.

Governments should pay special attention to unregulated bureaux of exchange and alternative remittance systems, which are an important vehicle of ML. These systems are used to evade exchange control restrictions and other laws and regulations. All efforts should be made to curb the activities of these systems.

6.3 Improve investigation and prosecution capabilities

Governments should be encouraged to improve their investigative and prosecution capabilities. As the results of the current study have shown, law enforcement agencies need to improve on these capabilities in order to achieve a higher conviction rate. Improvements should be made to staffing criminal investigative departments, training and mentoring these departments, and building greater cooperation between government agencies, police and prosecutors through training and developing the capability to investigate high-level corruption cases.

6.4 Governance of money laundering risk in the private sector

All accountable institutions (AIs) should be encouraged to implement a risk-based approach to the management of ML risk. A risk-based approach provides a framework for identifying the degree of potential money laundering risks associated with customers and transactions and allows for an AI to focus on those customers and transactions that potentially pose the greatest risk of money laundering.

AIs should be supervised on the level of governance of ML risk. All AIs should apply the good risk governance to the identification, assessment, management and communication of ML risks. The process should incorporate criteria such as accountability, participation and transparency.

AIs should address the challenges associated with ML. These challenges include increasing interconnectedness throughout the world, the extent of social networking, the volume of transactions, the fast-paced technological change and conflict of interests in business. In order to address these challenges, AIs should establish clear roles and responsibilities with regard to ML, an ML policy and plan, an ML risk management framework and an ML risk management process. In addition, the role of the board, board sub-committees and executive management should be clearly defined.

AIs should appoint competent ML risk managers who have to focus on identifying the external and internal ML risks that AIs face, evaluate the likely effect of these risks, introduce a range of control measures, and monitor and evaluate the success of these measures.

AIs should give special attention to politically exposed persons (PEPs). It is recommended that not only should PEPs be identified but a risk profile of each should be compiled. Factors such as nationality, the person's position, authority and powers, business relationships, types of products or services offered/required, foreign parties previously dealt with and any applicable historical facts should be taken into account when compiling PEP's risk profile.

6.5 Enhance consumer education

Consumer education about ML has already been cited as a method to combat ML. However, consumer education should be enhanced not only to highlight ML risks to consumer but also to include the risks attached to the handling of cash and the advantages of banking the cash.

Specific education programmes should focus on the risks associated with handling cash, such as the theft of cash, illegal cash transfers, false records and false invoices.

6.6 Enhance banking services

Countries but in particular banking institutions should enhance banking services to customers in order to combat ML. Countries should incentivise banks to expand their branch network, automatic teller

machines and even mobile banking at both demographic and geographic levels.

Banks or post office banks should be incentivised to draw customers from low-income levels. Banks should lower requirements on minimum balances, fees and documentation requirements. Banks should make "plain-vanilla" products available to customers to meet the demands for basic banking services.

6.7 Regional co-operation

Countries should be encouraged to improve upon their regional interconnectedness by enhancing regional cooperation and integration. Cash-based economies are at different levels of implementing AML components mainly due to differing social and economic priorities. A concerted effort is needed to better link national with regional priorities so that countries may fully benefit from each other's strengths and overcome ML problems.

7 Conclusion

Uncontrolled money laundering boosts corruption, worsens poverty, bankrupts vulnerable financial institutions, destabilises countries and dries up donations to countries involved – at the expense of ordinary citizens. West Africa in particular faces a challenge with regard to ML due to the region's vulnerability to organised crime and limited capacity to respond effectively to this threat. In addition, the people behind ML are using West Africa as a conduit. During the current study, concerns were also raised on the implementation of the FATF recommendations in West Africa.

In light of the above, a study was conducted with the purpose to ascertain the level of FATF implementation in the GIABA member countries in West Africa. A second objective was to use the results of the study to suggest additional recommendations in order to facilitate effective FATF implementation in cash-based economies, particularly amongst GIABA member countries in West Africa.

The study reviewed the challenges posed by the 40 FATF recommendations and the nine special recommendations aimed at combatting AML and CFT in the USA, Europe, the Russian Federation and Africa, with specific reference to West Africa.

In addition, the study found that the implementation of the FATF recommendations in the GIABA member countries in West Africa was at different stages. The majority of these countries had AML legislation and financial intelligence units. However, the ability to control ML activities seemed to be lacking. It was found that the majority of these countries lacked adequate resources, expertise, investigation capabilities and prosecution capabilities all of which led to a low rate of ML convictions.

Based on the current study, several enhancements are proposed to the current FATF recommendations and this includes developing the political will to fight ML, improving AML legislation, implementation and supervision of AML legislation and regulations, improving investigation and prosecution capabilities at country level, enhancing governance of money laundering risk in the private sector, enhancing consumer education, enhancing banking services to the "unbanked" population, and regional co-operation.

The study was limited to the GIABA member countries in West Africa. ML is however found all over the world and a study of cash-based economies in other regions could further enhance the effectiveness of AML measures.

The incorporation of the recommendations made in this study on the FATF recommendations per se could be have a significant influence in the combat against ML in cash-based societies specifically in West Africa.

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RISK MANAGEMENT LESSONS LEARNED: COUNTRYWIDE REPORT

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Abstract

International and U.S. banks should benefit from studying Countrywide Financial Corporation's business practices leading up to the 2008 financial crisis in order to develop lessons learned for improved risk management and corporate governance by both boards of directors and management. Especially for U.S. banks, the 2010 Dodd-Frank Act now requires all U.S. banks supervised by the Federal Reserve Bank to have risk management committees with at least one "risk management expert" on the committee. However, the $6.2 billion "London whale" loss at JPMorgan Chase in 2012 has motivated large institutional shareholders of JPMorgan Chase common stock to demand the removal of three risk management board members. It was hard to determine the "risk management expert" among the four committee members: a JPMorgan Chase director since 1991, the head of Honeywell International, a former KPMG executive, or the president of the American Museum of National History.

Internationally, the proportion of bank boards that have risk committees was significantly higher in Europe in 2005 (26.6%) than in the United States (9.6%) (Allemand et al 2013). When a board decides to create a risk committee, it shows greater awareness of the importance of risk management and control (Hermanson 2003). When risks are complex and when the regulatory environment is strong, the creation of a risk committee becomes necessary and a risk management committee can help to make the profile risk of a bank more intelligible to the board. The presence of such a committee should lead to a lower risk (Brown, Steen and Foreman 2009). However, Countrywide had a risk management committee. Although it was repeatedly warned of investment risks by senior Countrywide executives, it ignored such risk warnings. Similarly, a weak system of management control was found to be a key, recurring structural factor in corporate governance implications from the 2008 financial crisis (Grove et al 2012).

The following excerpts from the forensic accounting report on Countrywide are used to develop six key risk management lessons that should have been learned by any bank risk management committee for improved corporate governance. This forensic accounting report for Countrywide Financial Services was prepared by Gordon Yale, a practicing forensic accountant in Denver, Colorado. This forensic investigation of Countrywide was performed at the request of the Attorney General of the State of Florida who used the resulting forensic report in litigation against Countrywide's Chief Executive Officer, Angelo Mozilo. A Florida court threw the Mozilo case out because Mr. Mozilo was not a resident of the state. Before an appeal by the Florida Attorney General was decided, the Mozilo case was dropped because Bank of America, which had acquired Countrywide as it neared financial collapse in 2008, settled a larger action with eleven states, including Florida, for approximately $8.4 billion. In doing so, Bank of America avoided prosecution for Countrywide's alleged fraudulent conduct – inducing customers into taking out subprime mortgages and other risky, high-cost loans. The State of Florida's share of that settlement was nearly $1 billion. This forensic report was used to develop key risk management lessons learned from Countrywide which was the largest generator of these risky, "no-doc" (no significant applicant qualifications) subprime mortgages and other high-cost loans which helped precipitate the 2008 financial crisis.

Keywords: Risk Management, Lessons Learned, Countrywide Bank

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1 Introduction

The following summary was from the March 8, 2011 report provided to the Attorney General of the State of Florida by Gordon Yale:

At your request, I have reviewed various documents including annual Countrywide Financial Corporation ("CFC" or "Countrywide") Forms 10-K for the years ended December 31, 2002 through 2007 filed with the U.S. Securities and Exchange Commission ("SEC"). I have also reviewed certain quarterly filings of CFC Forms 10-Q and various other SEC filings by CFC and Angelo R. Mozilo, extracts from transcripts of testimony by various Countrywide executives as well as a limited number of internal CFC e-mail provided to the state of Florida in this matter. In addition, I have read extracts from the deposition taken by the state of Florida of Mr. Mozilo, the former chairman and chief executive officer of Countrywide as well as other documents cited in footnotes to this report. The purpose of this review and analysis was to form certain opinions on matters related to this case. Based upon the endeavors I have described, my findings and opinions, to a reasonable degree of professional certainty, are as follows:

- From at least 2004 through June, 2008, CFC engaged in lending activities that various CFC executives, including Angelo Mozilo, knew were high risk to both to CFC and its borrowers.
- CFC's high-risk loans included subprime mortgages, subprime adjustable rate mortgages ("subprime ARMS"), home equity, home equity lines of credit (or "HELOCs") that were typically second lien loans, and Pay-option ARMS. Pay-option ARMS permitted negative amortization of the loan up to 115 percent of the initial borrowing.
- To reduce its risk of loss on these loans, CFC typically bundled its loans into residential mortgage-backed securities ("RMBS") and sold them to investors in the marketplace, retaining a residual interest. The design of many of these securitizations provided a structured hierarchy of investor rights to the cash flows that the underlying loans were expected to produce.
- Under generally accepted accounting principles ("GAAP") of the period, and since rescinded, CFC could account for a securitization as a sale of assets even if it retained a residual interest. As a result, CFC was permitted to recognize the present value of its estimated share of the future interest and in many instances, servicing income produced by the underlying loans in the RMBS upon the closing of the securitization transaction.
- Under most conditions, this accounting treatment permitted Countrywide to recognize more income during the period than it would have reported had it simply held the underlying loans on its balance sheet.
- The acceleration of CFC earnings, coupled with the securitization of higher risk assets, benefitted both Countrywide and Mr. Mozilo. Higher earnings contributed to higher valuations of CFC stock and increased Mr. Mozilo's earnings-based compensation as well as the value of his stock options until 2007, when home values began what would be a precipitous decline.
- Billions of dollars of these loans were made to CFC customers in Florida, and continued to be serviced by CFC until Bank of America acquired the company in June 2008.
- A recent study concluded that, of the executives of the 14 largest financial institutions in the United States, Mr. Mozilo realized more income than any of his counterparts from 2004 through 2008. He realized approximately $423 million of compensation from salary, bonuses and the sale of CFC stock between 2004 and 2008. Approximately $377 million resulted from the net sales of Countrywide stock.

From Yale's findings and opinions, we have identified six lessons that should be learned from Countrywide's activities and history. Each is discussed below.

2 Lesson learned number 1: Do not ignore increasingly ubiquitous high risk loans and other high risk activities

For the twelve months ended December 31, 2002, Countrywide was the third largest home lender in the United States.[15] On a consolidated basis, CFC originated approximately $251 billion of home loans. The dollar value of its loan production was some 3.8 times larger than the loan production for the fiscal 2000 year. Of these $251 billion of loans originated in calendar 2002, nearly 86 percent were conventional conforming or non-conforming loans. More risky nonprime mortgage loans represented only 3.7 percent of originations while prime home equity loans, typically secured by second liens, were approximately 4.6 percent of originations.[16]

From December 31, 2002 to 2006, the originations of non-prime loans grew by more than 500 percent while prime home equity loans grew by nearly 400 percent during the four-year period. CFC did not specifically disclose the amount of Pay-option loans it originated, but Pay-options were generally classified as prime loans and were apparently classified as conventional and non-conforming.[17] Table 1, reproduced from the Countrywide SEC filings, enumerates the dollar volume growth of all loan originations.[18]

[15] See Page 17 of the CFC 2002 Form 10-K

[16] See Page 24 of the CFC 2005 Form 10-K

[17] See Page 2 of Angelo R. Mozilo Memorandum, dated August 16, 2006 at SEC-Melone-0001147

[18] See Page 24 of the CFC 2005 Form 10-K and Page 29 of the CFC 2007 10-K

Table 1. Countrywide Financial Corporation Consolidated Loan Production 2001 through 2007

	2007	2006	2005	2004	2003	2002	2001
				In Millions			10 Months
Conventional Conforming Loans	$216,829	$149,095	$167,675	$138,845	$235,868	$150,110	$76,432
Conventional Non-Conforming Loans	$117,634	$211,841	$225,217	$140,580	$136,664	$61,627	$22,209
Nonprime Mortgage Loans	$34,399	$47,876	$44,637	$39,441	$19,827	$9,421	$5,580
Prime Home Equity Loans	$16,993	$40,596	$42,706	$30,893	$18,103	$11,650	$5,639
FHA/VA Loans	$22,379	$13,093	$10,712	$13,247	$24,402	$19,093	$14,109
Commercial Real Estate Loans	$7,400	$5,671	$3,925	$358	$ -	$ -	$ -
	415,634	**468,172**	**494,872**	**$363,364**	**434,864**	**251,901**	**123,969**

By December 31, 2004, Countrywide had grown to become the largest originator of home loans in the U.S. and the company would remain the leader through 2007.[19] CFC's growth in loan originations between 2002 and 2005, which nearly doubled, were not the primary result of the 11.7 percent growth in originations of conventional conforming loans, but were more the product of the 365 percent growth in conventional non-conforming loan originations (including Pay-option ARMs), the nearly 474 percent growth of non-prime mortgage loans, and the approximately 367 percent growth of prime home equity loan originations.

A September 2004 report to the CFC Corporate Credit Risk Committee provided substantially more detail than CFC's Form 10-K filings. The committee members were informed that in the last year *"non-conforming funding rose from 23% to 41%, subprime rose from 5% to 12% and Home Equity products rose from 5% to 9%. Relatively new products such as Pay-option, Interest Only LIBOR and FlexSaver now represent 18% of conventional volume. ARM products represented 15% of conventional funding a year ago and now represent 50%. Interest Only (sic) funding represent 45% of conventional ARMs."*[20] However, the Corporate Credit Risk Committee took no action to reduce this increasing dependence on high risk loans.

3 Lesson learned number 2: Do not ignore the initial risk warnings of senior management executives

Mr. Mozilo and other Countrywide executives were apparently well aware of the increased risks of subprime, home equity and Pay-option loans. In September 2004, for example, Mr. Mozilo wrote:

"As I look at production trends, not only at Countrywide but also with other lenders, there is a clear deterioration in the credit quality of loans being originated over the past several years. In addition, from my point of view, the trend is getting worse as the competition for subprime, Alt-A and nonconforming in general continues to accelerate. GE, Ameriquest and others, excluding Wells, Chase and BofA, have not only become more price competitive but have substantially lowered credit, down payment and income requirements. This trend could cause borrowers to be more vulnerable to adverse changes in interest rates, the economy or both. It appears that home buyers, driven by a strong desire to own a home combined with rapidly increasing values, are stretching themselves beyond any historical standards to get into the home of their dreams. The bottom line of my perspective on this trend is that we should seriously consider securitizing and selling (NIMS) a substantial portion (sic) of our current and future subprime residuals even though the value in retaining such residuals "appears" to be a better economic execution than a NIMS (net interest margin securities) *execution.*

I fully understand that our residuals have been modeled on a conservative basis but it is only conservative based upon historical performances. But the type of loans currently being originated combined with the unprecedented stretching of all aspects of credit standards could cause a bump in the road that could bring with it catastrophic consequences. If that were to happen, the .50 basis points (sic) additional cost of the NIM versus retention on our balance sheet would look like a bargain…[21]"

[19] See Page 105 of the 2005 CFC Form 10-K and Page 146 of the 2007 CFC Form 10-K

[20] See Corporate Credit Risk Committee Minutes, dated September 21, 2004 at CFCP001241531

[21] See Mozilo e-mail to Stan Kurland dated September 1, 2004 at NYF-SEC 009492

As will be more fully discussed in a subsequent section, Countrywide securitized most of the loans it originated. Conventional conforming, and initially some non-conforming, conventional loans could be securitized with no structured recourse to CFC. Subprime and home equity loans securitization structures, however, frequently provided that CFC (as the sponsor) retain a subordinated interest (or tranche) in the securitization to provide additional collateral to the more senior tranches. Such was the market in 2004 that Countrywide could securitize and sell some of these retained interests. Thus, Countrywide's structural exposure to loss would be limited to the retained interest in the retained interests it had sold through subsequent securitizations.

In an August 2005 email, before homes sales and home prices had fully peaked, Mr. Mozilo wrote about the risks of Pay-Option loans in Florida:

"*I am becoming increasingly concerned about the environment surrounding the borrowers who are utilizing the pay option loan and the price level of real estate in general but particularly relative to condos and specifically condos being purchased by speculators (non-owner occupants). I have been in contact with developers who told me that they are anticipating a collapse in the condo market very shortly simply related to the fact that in Dade County alone 70% of the condos being sold are being purchased by speculators. This situation is being repeated in Broward County, Las Vegas as well as other so called "hot" areas of the Country.*

We must therefore re-think what assets we should be putting into the bank. For example you should never put a non-owner occupied pay option ARM on the balance sheet. I know you have already done this but it is unacceptable. Secondly only 660 FICO's and above, owner occupied pay options should be accepted and only on a limited basis. The focus should be 700 (FICO scores) *and above (owner occupied) for this product. The simple reason is that when the loan resets in five years there will be an enormous payment shock and if the borrower is not sufficiently sophisticated to truly understand this consequence, then the bank will be dealing with foreclosure in potentially a deflated real estate market. This would be both a financial and reputational catastrophe.*

Frankly, I am no longer concerned about the pace of growth of the bank. In fact if there was little to no growth over the next six months until we can assure ourselves of high quality performing assets, I would be a supporter of little to no growth. Since we own the assets of the bank and (are) responsible for the long-term performance of those assets, we must focus on quality and not quantity if that's the choice we have to make. I feel strongly that over the next twelve months we are going to be facing one of the most difficult and challenging real estate and mortgage markets in decades and I want to take steps now to mitigate and hopefully avoid any damage to the bank.

On Sunday I met a mortgage broker from a town near Troy, Michigan who told me that he does all of his business with Countrywide. First I was pleased with the news until he told me why. He said that the area he serves is severely economically depressed and that the only way he can qualify his borrowers is (sic) via the pay option ARM. I have heard this story many times over from mortgage brokers who utilize the pay option for very marginal borrowers for the sole purpose of creating volumes and commissions. We simply cannot and will not allow our Company to be victimized by this pervasive behavior and since we can't control the behavior of others, it is essential that we control our own actions…[22]"

The Corporate Credit Risk Committee ignored these initial risk warnings of senior managers and took no action to reduce this increasing dependence on high risk loans.

4 Lesson learned number 3: Do not stay the course against ongoing risk warnings

While the e-mail discussed above precipitated a series of e-correspondence from Carlos Garcia, the CEO of Countrywide Bank, and to other CFC executives, the simple fact was that Countrywide continued making high-risk loans. As Table 1 above enumerates, CFC originated more subprime loans in 2006 than it did in 2005 and originated only a marginally smaller volume of conventional non-conforming and prime home equity loans.

Further, despite Mr. Mozilo's alarmist but prescient e-mail, the portfolio of Pay-option loans retained in CFC's Banking Operations segment actually grew from $26.1 billion at December 31, 2005 to $32.7 billion at December 31, 2006.[23] The increase of approximately 25.4 percent occurred despite significant increases in borrowers choosing low payment options that did not fully pay interest as due. In 2005, more than 53 percent of Pay-option loans were amortizing negatively. By December 31, 2006, more than 88 percent of Pay-option loans had negative amortization.[24]

Moreover, CFC also retained more home equity loans in 2006 than it retained in 2005. According to the 2006 Countrywide Form 10-K, CFC retained nearly $15 billion of prime home equity loans as investments in 2005 and more than $20.2 billion in 2006, an increase of approximately 35 percent.[25] The result of the decision to retain more Pay-option and home equity loans in 2006 was to expose Countrywide to the full risk of loss should the loans fail. Had

[22] See Mozilo e-mail to Carlos Garcia dated August 1, 2005 at CFC20071061393

[23] See Page 64 of the 2006 CFC Form 10-K

[24] Ibid.

[25] See Page F-36 of 2006 CFC Form 10-K

Countrywide reduced these originations, CFC's risks would have been reduced.

Although home equity loans were not mentioned in the Mozilo e-mails, CFC knew that it was exposed to losses on its home equity loan and HELOC products because the loans were typically second lien loans and in some instances, these loans were piggybacked to make down payments on home purchases or were used in tandem with Pay-option loans. For example, in response to Mr. Mozilo's August, 2005 e-mail, Mr. Garcia wrote to CFC executives:

"*Pursuant to Angelo's (sic) direction, please make every effort to further accelerate the assessment of low FICO borrowers and appropriate action on pay options (sic). Also are there additional markets besides South Florida and Vegas that merit discontinuation of lending to investors or condo borrowers? We still have South Florida and Vegas lending shut down for all products, right? (sic) I want to get with Stan and back to Angelo this week. In the meantime, pending the completion of analyses and deliberation, we should now stop investing in pay option loans less than 660 FICO unless the CLTV* (current loan-to-value) *is 70 percent or lower or they have MI* (mortgage insurance). *Likewise stop loaning on HELOCS with underlying pay options unless the CLTV is under 70 and the FICO is over 660 unless we can buy MI economically…"*

And to Mr. Mozilo, Mr. Garcia wrote[26]:

"No lending to investors in any market is the direction we are following/implementing immediately without waiting on analyses or deliberation … I do agree with your concern, particularly given the fact that credit availability is going to tighten or at least get a lot more expensive due to the growing concerns over pay option and IO (interest only) *loans, rising rates, housing bubbles and ensuring regulatory and lender actions."*

While Countrywide did not enumerate losses on home equity portfolios in 2004 through 2006, it did disclose delinquencies and foreclosures in its loan-servicing portfolio. While delinquencies in home equity loans in 2004 were less than delinquencies on conventional mortgage loans (.79 percent vs. 2.24 percent), by 2006, the trend had reversed. Delinquencies on home equity loans were 2.93 percent in 2006 while conventional delinquencies were 2.76 percent. Of more concern was that delinquencies of subprime loans in the servicing portfolio grew to 19.03 percent.[27]

Disclosure in Countrywide filings also detailed growing credit losses on the residuals it held as a result of home equity loan securitizations. These losses were taken despite the fact that during the three-year period between 2004 and 2006, home prices in the U.S. increased more than 34 percent. In 2007, home prices declined by approximately 9 percent, and the credit losses on home equity residuals ballooned.[28] Table 2 below illustrates CFC's losses on home equity residuals.[29]

Once again, the Corporate Credit Risk Committee ignored the ongoing risk warnings of senior managers and took no action to reduce this increasing dependence on high risk loans.

5 Lesson learned number 4: Do not be seduced by significant profits on high risk loans and other high risk activities

Despite Mr. Mozilo's expressed concerns about the risks of Pay-option and subprime loans as well as the significant write-offs of home equity residuals while home prices were rising in 2004 and 2005, Countrywide increased its exposure to these high-risk loans. Documents in this matter do not fully establish why CFC made these decisions, but disclosures in CFC SEC filings clearly establish that higher risk loans were clearly more profitable. Table 3 illustrates the CFC gains on sale from the securitization from various loan classes.[30]

[26] See Garcia e-mail to Angelo Mozilo dated August 2, 2005 at CFC20071061392

[27] See Page 9 of 2006 CFC Form 10-K

[28] See Case-Shiller 20-City Composite Index

[29] See Pages 95 and F-38 of the CFC 2005 10-K and Page 120 of the CFC 2007 10-K

[30] See Pages 81, 61 and 78 of the CFC 2005, 2006 and 2007 Forms 10-K, respectively and Page 60 of the CFC Form 10-Q for the six months ended June 30, 2008

Table 2. Countrywide Financial Corporation Losses on Home Equity Residuals For the Years Ended December 31, 2004-2007

	2007	2006	2005	2004
	In Thousands, except for Percentages			
Net Prime Home Equity Residuals	$422,681	$1,506,109		
Available for Sale			$143,950	$275,598
Trading			$782,172	$533,554
Total Net Prime Home Equity Residuals	$422,681	$1,506,109	$926,122	$809,152
Credit Losses on Prime Home Equity Residuals	$896,020	$79,359	$34,173	$29,370
Gross Total Prime Home Equity Residuals	**$1,318,701**	**$1,585,468**	**$960,295**	**$838,522**
Credit Loss as % of Gross Prime Home Equity Residuals	**67.95%**	**5.01%**	**3.56%**	**3.50%**

Table 3. Countrywide Financial Corporation Gain on Sale as a Percent of Loans Sold For the Periods Ended December 31, 2003 through June 30, 2008

	6/30/2008	12/31/2007	12/31/2006	12/31/2005	12/31/2004	12/31/2003
Prime Mortgage Loans	1.36%	0.80%	1.07%	0.82%	0.93%	1.40%
Nonprime Mortgage Loans	N/M	-1.91%	1.84%	2.01%	3.64%	4.43%
Prime Home Equity Loans						
Initial	N/M	-4.16%	1.71%	2.10%	2.78%	1.90%
Subsequent Draws	2.56	2.30%	3.52%	-	-	-

Clearly, from 2003 through 2006, the securitization or sale of subprime and home equity loans generated substantially greater relative returns than the securitization or sale of prime mortgage loans. While the Countrywide SEC filings don't enumerate gains on sale or profits from Pay-option lending, Mr. Mozilo established the importance of Pay-option loans to CFC in a memorandum to the CFC Board of Directors in August 2006[31]:

"*… Countrywide's Option ARM, which is called Pay Option, is an important product in several respects. Consumers have responded favorably to this product due to the flexibility it offers and as such, it represent a significant portion of our volume (around 20% in recent quarters) and is the most profitable prime product in our origination channels. The Pay Option also comprises the bulk of the Bank's investment loan portfolio. Pay Option loans are therefore a very important contributor to the Company's earnings…*

… From a Market Risk perspective, Pay Options are the safest first lien choice because the underlying accrual rate on the loan changes each month as a function of interest rates. From a Credit perspective, Pay Option loans are riskier because the loan balance can increase (from the negative amortization) and because the borrower is exposed to payment shocks (especially at the recast where the payment increase can be very large). However, Pay Option loans have the highest Expected Return compared to all other first liens we could retain as an investment."

Table 4 estimates the impact of the gains on sale from Pay-option,[32] subprime and home equity loans[33] as well as the net interest income from Pay-option loans on Countrywide's consolidated revenue.[34] The estimates below exclude mortgage-servicing income

[31] See Angelo Mozilo Memorandum to CFC Board of Directors dated August 16, 2006 beginning at SEC-Melone-0001147

[32] Estimate based on Pay-option loans representing 10 percent of CFC's total loan production (Mozilo said it was 20 percent of production for recent quarters) divided by Prime Mortgage Loans Sold times the actual gain on sales for prime loans as disclosed on Page 81 and Page 69 of 2005 and 2006 CFC Forms 10-K

[33] Actual, per CFC Forms 10-K. See Pages 81 and 61 of CFC 2005 and 2006 Forms 10-K, respectively

[34] Estimated utilizing average actual Pay-option loan balances in CFC Banking Operations Segment times spread between actual annualized yield on mortgage loans less annualized rate of interest-bearing liabilities. See Pages 76 and 65 of CFC's 2005 and 2006 Forms 10-K. See Pages F-5 and F-4 of CFC 2005 and 2006 Forms 10-K for CFC Total Consolidated Revenue

by category because the amounts were not disclosed in CFC SEC filings. Clearly, the revenues from these products that Mr. Mozilo understood to be high risk were significant to Countrywide.

Table 4. Countrywide Financial Corporation Significance of Pay-option, Subprime and Home Equity Revenues For the Years Ended December 31, 2003 through 2006

	2006	2005	2004	2003
Gains on Sale				
Pay-Option Estimate	$502,835	$405,088	$337,647	N/A
Nonprime Mortgage Loans	$703,686	$881,843	$1,115,450	$452,866
Prime Home Equity Loans			$778,622	$15,566
Initial	$459,158	$510,109		
Subsequent Draws	$151,611	$121,519		
Estimated Net Interest-Pay-Option	$723,240	$363,711	$55,941	N/A
Total	**$2,540,530**	**$2,282,270**	**$2,287,660**	**$468,432**
Consolidated Total Revenue	**$11,417,128**	**$10,016,708**	**$8,566,627**	**$7,978,642**
Nonprime and Home Equity as % of Consolidated Total Revenue	**22.3%**	**22.8%**	**26.7%**	**5.9%**

Clearly, the Corporate Risk Management Committee was also enticed by these high profits and recommended no action to reduce dependence on such high risk investments.

6 Lesson learned number 5: Do a cost/benefit analysis on the securitization of loans and other high risk activities

Securitization—the bundling, sectioning and remarketing of financial assets—was the financial structure of choice in the mortgage markets of the new millennium. Financial institutions, like Countrywide, realized three primary benefits from securitization structures largely because of permissive accounting rules under U.S. generally accepted accounting principles ("GAAP"). These primary benefits included:

- Off balance sheet treatment of assets and liabilities arising from transactions that were often, in substance, secured loans with limited recourse to the borrower.
- The immediate recognition of interest income, typically earned only with the passage of time.
- The immediate recognition of revenue from mortgage loan servicing prior to doing the actual work.

Until the rules were reversed for calendar-year companies beginning on January 1, 2010, these benefits were perfectly legitimate under GAAP for an entire generation. Securitizations took many forms and employed a variety of structures, but the elements common to each are the aggregation of income producing financial assets that are in turn transferred to a bankruptcy remote entity, typically a trust, and then carved into pieces (or tranches) that have a structured hierarchy of rights to the anticipated cash that the assets were expected to generate.

The financially engineered product was then remarketed much as a note or a bond—that is, a debt instrument secured in this case by mortgage loans—but sold as a series of tranches, each with different risks and correspondingly different returns. In many securitizations, the tranches were (and continue to be) parsed so that the most senior tranche has the first right to virtually all the cash generated by the underlying assets that collateralized the security.

When and only when the periodic interest and principal due the senior tranche were paid, the remaining cash flowed to the next, most senior tranche in the hierarchy and so on down to each of the remaining subordinate tranches. Deconstructed to their simplest terms, many securitization transactions were (and continue to be) little more than a secured loan with recourse, often limited recourse, to the borrower. But because GAAP treated even these securitization transactions as a sale, the benefits of the structure multiplied.

First, qualifying securitizations were off balance sheet. Countrywide, for example, typically bundled the mortgage loans it originated and sold them. If it sold virtually all of its economic interests in a particular pool of mortgages and had no meaningful continuing economic rights or obligations, then the transaction was clearly a sale. The underlying mortgages would be removed from Countrywide's balance sheet and transferred to the purchaser. The amounts paid to Countrywide would be revenue and profit, and could be determined simply by subtracting Countrywide's cost of the mortgages and the retained benefits from the revenue it received from their sale.

On the other hand, if the purchasers of the various tranches insisted that Countrywide continue to

hold a significant interest in the security, and the interest retained by Countrywide was the most subordinate tranche, reducing it to the first loss piece in the event that the underlying mortgages defaulted, then the economic substance of the securitization looked more like a secured loan, with limited recourse, than a sale.

Further, if that same subordinate tranche held by Countrywide had the right to the excess cash flows, from the difference between the interest generated by the underlying mortgages and the interest paid to the holders of the more senior tranches, then the subordinate tranche was not just excess collateral for the benefit of the more senior tranches. It provided Countrywide the continuing economic benefit of the interest spread that could be valuable.

Under this scenario—where the securitization structure produced substantially the same benefits of a secured loan with limited recourse—it should have been hard to argue that it wasn't a secured loan with limited recourse. Despite the logic, if the transaction met GAAP requirements, GAAP permitted such transactions to be treated as asset sales. As asset sales, mortgages would be removed from Countrywide's balance sheet and no debt obligation to security holders would be recorded.

6.1 Gain on Sale

Countrywide and every other sponsor of securitizations realized other benefits of securitization to their bottom line. Because the accounting rules treated such conforming transactions as sales, Countrywide was permitted to recognize a profit (or loss) when the securitization transaction closed. One element of the determination of the profit was the valuation of the sponsor's continuing interest in the spread between the interest received from the underlying mortgages and the interest paid to security holders and other retained interests. That spread was typically greater on the securitization of high-risk loans such as subprime and home equity products. As a result, the gains from the sale of subprime or home equity securitizations were larger. This was consistently true at Countrywide (See Table 3 above).

A number of factors, including prepayments and defaults, impacted the value of the interest spread. For example, the duration of a mortgage impacted the length of time the interest spread would be realized. Similarly, defaulted loans had the potential to lower the interest spreads. Thus, the valuation of the sponsor's residual in the interest spread from the securitization was something of a guess. And because credit standards were deteriorating and new products were introduced, the estimation process had significant uncertainty. In a September, 2006 e-mail, Mr. Mozilo wrote[35]:

"… 1. Pay Options have become the lightening rod in the arena of "exotic loans." It is getting the attention of ratings agencies, regulators and the press. 2. We have no way, with any reasonable certainty, to assess the real risk of holding these loans on our balance sheet. The only history we can look to is that of World Savings; however, their portfolio was fundamentally different than ours in that their focus was equity and ours is FICO. In my judgment (sic), as a long time lender, I would always trade off FICO for equity. The bottom line is we are flying blind on how these loans will perform in a stressed environment of higher unemployment, reduced values and slowing home sales … I therefore believe the timing is right for us to sell all newly originated pay options and begin rolling off the bank balance sheet, in an orderly manner, pay options in their portfolio."

If Countrywide couldn't assess the risk of Pay-Option loans in 2006, they certainly couldn't assess it in 2004. Nevertheless, Countrywide, like every sponsor, was permitted to recognize gains on sale even if it retained residual interests of a highly uncertain value. Further, the interest spread component of the valuation permitted Countrywide and other sponsors to recognize the present worth of the interest spread even though such interest had neither been earned nor paid.

GAAP was wholly inconsistent on this issue. The senior tranche owners of securitizations recognized interest earnings in their financial statements only if mortgages remained outstanding and interest accrued. In other words, they recognized interest earnings periodically, with the passage of time, which determined whether interest on a loan was earned and ultimately, whether it would be paid. Securitization sponsors, however, recognized the present worth of the estimated interest due them upfront.

6.2 Mortgage Servicing Rights

The third primary benefit of securitization was the recognition of profit on mortgage servicing rights ("MSRs"). Countrywide, like a number of sponsors, sold loans into securitization pools of mortgages, but retained the right to administer or service the mortgage for a fee of between 25 and 50 bps annually.[36] When sponsors securitized mortgage loans, but retained mortgage servicing rights, the MSRs were considered to be a retained interest requiring valuation. Moreover, the estimated value of MSRs was utilized in the determination of the gain on sale from the securitization. The values were derived from the present worth of the estimated future cash flows from mortgage servicing fees.

And like the interest spread, estimated value of the MSRs was recorded at the close of the securitization transaction although the 25 to 50 bps of fee income would be earned in each future year that

[35] See Mozilo e-mail, dated September 26, 2006 at CFC2007B786677

[36] See, for example, Page F-20 of 2006 CFC 10-K

the mortgages were outstanding. Because many factors, including interest rate movements, loan prepayments, delinquencies and defaults impacted the length of time a mortgage loan would remain outstanding as well as how long servicing fees would be paid, the estimate was uncertain and somewhat volatile.

Despite the uncertainty in estimating the value of residual interests and MSRs, two primary components of the gain on sale calculation, the impact on Countrywide's financial statements was highly significant. Table 5 recapitulates CFC's gains on sale related to home equity and subprime loans securitizations and the related, estimated income from mortgage servicing on home equity and subprime loans as well as income from CFC residual interests from its high risk loan securitizations. These amounts were recorded in Countrywide's income statements.

Table 5. Countrywide Financial Corporation Significance of Gain on Sale on Home Equity and Subprime Loans For the Years Ended December 31, 2003 through 2007

	2007	**2006**	**2005**	**2004**	**2003**
Gain on Sale	$(574,649)	$1,314,455	$1,517,471	$1,894,072	$468,432
Servicing Fees, Net	$333,212	$154,496	$120,503	$87,473	$(120,263)
Income from Retained Interests	$505,325	$513,136	$455,986	$388,474	$410,346
Gain Related Income	$263,888	$1,982,087	$2,093,960	$2,370,019	$290,083
Total Revenue	$6,061,437	$11,417,128	$10,016,708	$8,566,627	$7,978,642
Gain Related Income as % of Total Revenue	**4.4%**	**17.4%**	**20.9%**	**27.7%**	**3.6%**

The tenuous nature of recognizing massive gains on sale that were largely dependent on estimates of revenue that had been recognized, but not earned, did not become fully apparent in CFC financial statements until 2007, when declining home prices and other factors compelled CFC to record multi-billion dollar impairment charges against its retained interests. Once again, the Corporate Risk Management Committee did not analyze possible risks by doing a cost/benefit or other analysis on the securitization of loans or any other high risk business strategies since the benefits were so appealing and enticing.

7 Lesson learned number 6: Do stress tests on key risks which may be realized

By the end of 2006, it was clear that home prices in most markets had peaked. The Case-Shiller 20-city composite index indicated a less than one percent increase year-over-year and three California markets—San Diego, San Francisco and Los Angeles—experienced larger changes. According to Case-Shiller, home values in San Diego and San Francisco declined approximately 4.2 percent and 1.4 percent, respectively, while in Los Angeles, home prices increased by approximately 2 percent.[37]

Mr. Mozilo remained both vigilant and prescient. In a June, 2006 e-mail, the Countrywide CEO wrote:[38]

"In my discussions with Stan (Kurland, the CFC President and Chief Operating Officer) *and Dave* (Sambol, the CFC Chief of Production and soon to become president), *it came to my attention that the majority of pay options originated by us, both wholesale and retail, are based upon stated income. There is also some evidence that the information that the borrower is providing us relative to their income does not match up with IRS records. As rates continue to climb, it is evident that two things are going to happen relative to the loans on the Bank's balance sheet:*

1. That the time of reset is going to accelerate because the 115% of the original loan amount will be reached sooner than scheduled.

2. That the reset payments are going to be substantially higher than the buyer expects and what was used in the initial qualification.

We have at least 20% or more of the Bank's pay option loans at a FICO of 700 or less. It is clear that the lower FICO borrowers are going to experience a payment shock, which is going to be difficult if not impossible for them to manage. Since we know or can reliably predict what's going to happen in the next couple of years, it is imperative that we address the issue now. First and foremost the Bank should not be accumulating any loans below 680 unless the LTV is 75% or lower. Secondly we should comb the assets to assess the risks that we face on FICO's under 700 and determine if we can sell them out of the Bank and replace them with higher quality paper. Thirdly we should take a careful look at our reserves and begin to assume the worst …"

Mr. Mozilo had every right to be concerned. Despite the modest prices changes between 2005 and 2006, there had been a substantial increase in California home prices between December, 2000 and

[37] See Case-Shiller 20-City Composite Index

[38] See Mozilo e-mail to Carlos Garcia et al, dated June 1, 2006 at CFC2007A371364

December, 2005. Table 6 summarizes the Case-Shiller data.

Table 6. Case-Shiller Home Value Changes in California Markets From the Period December 31, 2000 through 2005

	2000 Index	2005 Index	% Change
Los Angeles	110.12	264.77	263.8%
San Francisco	128.58	215.11	214.1%
San Diego	116.32	248.55	247.5%

But despite Mr. Mozilo's continued and well founded concern, the Pay-option ARM loan balance held for investment in the CFC Banking Operations segment grew from $26.1 billion to $32.7 billion at calendar year-over-year and peaked at nearly $35.4 billion September 30, 2006.[39] The average loan-to-value on Pay-option ARM products did not decline from 2005 to 2006, but the average FICO score decreased slightly from 720 to 718. Pay-option ARM delinquencies grew from .1 percent to .63 percent of bank operating assets, but the allowance for loan losses as a percentage of non-accruing loans actually declined year-over-year.[40]

Mr. Mozilo was also rightly concerned about CFC's subprime products. In a March 28, 2006 e-mail, apparently written in reaction to a CFC buy back of a pool of 100 percent LTV subprime loans as a result of indemnifications provisions, Mr. Mozilo wrote[41]:

"*Based upon our meeting today we agreed to the following…*

2. Sambol will make certain that the people responsible for the origination process understand the necessity for adhering to the guidelines for 100% LTV sub-prime product. This is the most dangerous product in existence and there can be nothing more toxic and therefore requires that no deviation from guidelines irrespective of the circumstances …

… 4. Spector to review the buybacks and to take every step possible to correct the deficiencies and look to another secondary sale opportunity in order to reduce the loans of this type on our balance sheet …

… Again it is important that we take all of the corrective measures to resolve the outstanding issues with this product but more important to establish all of the necessary protocols to assure that we are originating these loans in a manner which takes us out of harm's way and that the loans are sold in a manner to avoid further and unnecessary exposure to the Company …"

Within two weeks, Mr. Mozilo amplified his concerns in an e-mail regarding first quarter 2006 earnings.[42] In part, he wrote:

"As per our conversation this morning, it appears to me that there are several important issues which must be addressed relative to our 100% sub prime second business … I have personally observed a serious lack of compliance within our origination system as it relates to documentation and generally a deterioration (sic) in the quality of loans originated versus the pricing of those loan (sic). In my conversations with (David) *Sambol, he calls the 100% sub prime seconds as the "milk" of the business. Frankly, I consider that the product line to be the poison of ours. Obviously, as CEO I cannot continue the sanctioning of the origination of this product until such time I can get concrete assurances that we are not facing a continuous catastrophe …"*

According to the CFC Form 10-Q for the quarter ended March 31, 2006, nonprime delinquencies in the servicing portfolio were 12.51 percent, some 292 bps greater than the first quarter of 2005.[43] The delinquency rate on nonprime mortgage loans in the servicing portfolio would continue to grow to 19.03 percent by year-end.[44]

Mr. Mozilo also remained troubled by the risks of Pay-option and HELOCs. In a May, 2006 e-mail to David Sambol, he wrote:[45]

"*… In addition, per our conversations of this week, I want you to examine our risk profile as it relates to the assets of the balance sheets of both CFC and the Bank. Although all assets should be reviewed including exposure on our residuals and excess servicing, we must pay special attention to HELOCs and pay options…*

… Per some of the suggestions offered during our meeting we should take every step possible to reduce balance sheet risk by:

1. Taking steps to encourage pay option mortgagors to refinance into IO's.

[39] See Page 53 of CFC Form 10-Q for the nine months ended September 30, 2006

[40] See Pages 107 and 108 of 2006 CFC Form 10-K

[41] See Angelo Mozilo e-mail to Stan Kurland et al dated March 28, 2006 at CFC2007A370003

[42] See Angelo Mozilo e-mail to Stan Kurland et al dated April 13, 2006 at CFC2007B008980

[43] See Page 63 of CFC Form 10-Q for the quarter ended March 31, 2006

[44] See Page 9 of 2006 CFC Form 10-K

[45] See Angelo Mozilo e-mail to David Sambol dated May 18, 2006 at CFC2007B061677

2. Where deemed appropriate the Bank should forgive the prepayment penalty if it appears obvious that the borrower will potentially default upon reset.

3. Through our payment coupon, we should alert all Pay-option borrowers what could happen upon reset.

Obviously there is much more that we can do to manage risk much more carefully during this period of uncertainty both as to the rate environment and untested behavior of Pay-options. Work closely with Carlos (Garcia) *and Stan on the execution of the strategies that we pursue. The combination of effectively managing our expenses and finessing off potential risks should keep us in good shape until the storm clears …"*

Despite these expressions of caution, CFC originated more prime home equity loans in 2006 than it did in 2005 and subprime loan production decreased only by 10 percent (See Table 7).

Table 7. Countrywide Financial Corporation Loan Production by Type As Percent of Total Production For the Years Ended December 31, 2005 through 2006

	2006	**2005**
Conventional Conforming	31.9%	32.0%
Conventional Non-Conforming	45.2%	47.2%
Nonprime Mortgage Loans	10.2%	9.0%
Prime Home Equity Loans	8.7%	8.9%
FHA/VA Loans	2.8%	2.1%
Commercial Real Estate Loans	1.2%	0.8%
	100.0%	**100.0%**

7.1 Running in Place

Despite the record price of Countrywide common shares in early 2007 and the share repurchases in late 2006, CFC's earnings had been largely stagnant since 2003 and its returns on equity had declined sharply. Countrywide's price earnings multiple had rarely been higher, but the Company's performance was unremarkable.

Despite generally increasing volumes in higher risk loan production—particularly subprime, home equity and non-conforming products (including Pay-options and Alt-A loans)—Countrywide's earnings grew a total of 12.7 percent in the four-year period from 2003 through 2006, but the growth rate in CFC's production of risky products was substantially faster. Table 8 recapitulates growth by loan category.

Table 8. Countrywide Financial Corporation Comparison of Growth Between Earnings and Higher Risk Loan Production 2003 through 2006

	2006	**2003 In Millions**	**% Total Growth**
Conventional Non-Conforming Loans	$211,841	$136,664	55.0%
Nonprime Mortgage Loans	$47,876	$19,827	141.5%
Prime Home Equity Loans	$40,596	$18,103	124.3%
CFC Net Income	$2,674.8	$2,372.9	12.7%

The growth in higher risk loan production (See Table 1 above), the majority of which was shoveled off of Countrywide's balance sheet through securitizations, did not produce increases in CFC's gains on sale. In fact, gains on sale declined between 2003 and 2006 from nearly $5.9 billion to almost $5.7 billion.

One of the reasons CFC's gains on sale declined and its net income increased only modestly between 2003 and 2006 was that spreads on higher risk loans had narrowed. Per Table 3 above, gains on sale as a percentage of loans sold declined significantly in three major categories: prime loan gains on sale declined from 1.40 percent of loans sold to 1.07 percent; subprime dropped from 4.43 percent to 1.84 percent and prime home equity declined from 1.90 percent to 1.71 percent.[46] The decline in prime loan spreads occurred despite the fact that CFC's mix of loans changed dramatically. In 2003, conforming loan

[46] Countrywide changed its reporting on home equity lending so the more highly profitable subsequent draws on home equity loans have not been considered in this analysis.

originations totaled approximately $236 billion but by 2006, had declined to approximately $149.1 billion. Prime non-conventional originations, including Pay-option and Alt-A loans, grew from $136 billion in 2003 to $211 billion in 2006.

Coupled with increasing operating expenses, the declines in securitization gain on sale margins apparently compelled Countrywide not only to originate and sell more high risk loans, but also to keep substantially greater amounts of loans it knew to be high risk on its balance sheet. In other words, to grow profits, CFC took substantially more risk**. A**dditional risks included holding increasing amounts of nonprime and home equity retained interests—often the first loss tranche of the securitization—as well as carrying significantly greater amounts of home equity, subprime and Pay-option loans on its balance sheet.

In other words, while net income was substantially stagnant between 2003 and 2006, Countrywide literally put the company on the line when it more than doubled its exposure to high-risk loans and residual interests to generate earnings and meet competitive demands.[47] Moreover, despite the higher risks, profits on securitizations were declining. Table 9 summarizes the magnitude of high-risk assets from 2003 through 2007.

Despite the additional risk embedded in Countrywide's balance sheet, in the fourth quarter of 2006, CFC repurchased some 38.6 million shares of its common stock for approximately $1.51 billion or an average of slightly more than $39 per share.[48]

7.2 A Very Bad Year

By August 2007, many of Mr. Mozilo's fears about toxic loans were realized. Between January 2 and December 31, 2007, prices for home equity loans originated in 2006 were collapsing. Mr. Mozilo clearly foresaw what was to follow. In a March 2007 email to various CFC executives, he wrote:[49]

"*Our production in Pay Options is increasing. How is this happening when the underwriting guidelines have been so severely restricted? I also see that we continue to have a substantial inflow of subprime. In light of the fact that we are taking substantial losses on subprime and its attendant residuals, how do we justify continuing intake of such substantial volumes? I do not want to continue to have to hold subprime for investments on our balance sheet because of the lack of liquidity and the adverse pricing environment. Have you sold the Pay-options in the Bank as we had discussed about a month ago?"*

In April, 2007, New Century Financial Corporation, the nation's second largest originator of subprime loans filed for bankruptcy. New Century had initially securitized nearly all of the subprime loans it originated, but by the third quarter of 2006, the company reported an inventory of nearly $9 billion of mortgage loans held for sale and an additional $14 billion held for investment. The $23 billion of largely subprime loans were funded by approximately $22.4 billion of debt.

According to the New Century Bankruptcy Examiner, the immediate causes of New Century's failure were the announcement that interim 2006 financial statements would require restatement and a sharp increase in the number of home foreclosures, about half of which were subprime by the fourth quarter of 2006.[50] As a result, lenders began pulling their credit lines. In June 2007, two Bear Stearns hedge funds announced that redemptions would be suspended. The highly leveraged funds held collateralized debt obligations ("CDOs") largely backed by subprime loans. Losses in the two funds were nearly total.[51]

During this same period, delinquency rates on home loans continued to increase, further exacerbating the descent of home values at alarming rates. Six of the top ten communities suffering the highest rates of mortgage delinquencies were in California and Florida, Countrywide's two largest markets. In the second quarter of 2007, Merced, Stockton, Riverside and Modesto, California, experienced delinquency rates that ranged from nearly 5.1 percent to 8.1 percent. In Miami and Ft. Lauderdale, Florida, delinquencies were 5.4 and 5.1 percent, respectively.[52] By July 2007, home values in Los Angeles had declined 3.4 percent from December 2006, while values in San Diego and San Francisco fell 3.7 percent and 1.6 percent, respectively. In Florida, conditions were worse. Miami home values dropped 7.3 percent for the period while the Tampa decline was 5.96 percent.[53]

[47] For 2003, see Pages F-22 and F-44 of 2003 CFC Form 10-K and Page F-22 of 2004 CFC Form 10-K
For 2004, see Pages F-22, F-25, F-33 and F-44 of 2004 CFC Form 10-K
For 2005, see Pages F-35 and F-38 of 2005 CFC Form 10-K and Page 34 of 2006 CFC Form 10-K
For 2006, see Page F-39 of 2006 CFC Form 10-K and Pages F-36, F-45, F-46 of 2007 CFC 10-K
For 2007, see F-36, F-40, F-45 and F-46 of 2007 CFC Form 10-K

[48] See Page F-6 of the 2006 CFC Form 10-K

[49] See Angelo Mozilo e-mail, dated March 9, 2007 at CFC2007C097767

[50] See Pages 1 and 47 of Final Report of Michael J. Missal, Bankruptcy Court Examiner, dated February 29, 2008, New Century TRS Holdings, Inc., Case No. 07-10416 (KJC)

[51] See Bear Stearns' Bad Bet, by Matthew Goldstein and David Henry, BusinessWeek.com, October 11, 2007

[52] See Mortgage Delinquencies, WSJ.com, July 19, 2007

[53] See Case-Shiller Composite 20-City Index for respective cities at December, 2006 and July, 2007

Table 9. Countrywide Financial Corporation Summary of High Risk Residuals and Loans Compared to Shareholders' Equity For the Years Ended December 31, 2003 through 2007

	2007	2006	2005	2004	2003
			In Thousands		
High Risk Financial Instruments and Loans					
Available for Sale					
Nonprime Mortgage Loans	$3,038,980	$4,917,895	$6,736,946	$9,882,701	$7,193,075
Home Equity Loans	$82,131	$1,813,947	$1,948,874	$1,033,653	$551,310
Nonprime and Home Equity Retained Interests	$123,917	$343,593	$587,076	$899,716	
Trading Securities					
Nonprime and Home Equity Retained Interests	$591,847	$1,567,863	$1,448,464	$721,480	
Held for Investment					
Prime Home Equity Loans	$34,539,144	$20,093,644	$14,991,351	$11,435,792	$12,804,356
Nonprime Loans	$2,725,407	$115,054	$255,677	$171,592	$175,331
Pay-Option ARMs Loans	$28,973,498	$32,732,581	$26,101,306	$4,698,665	
Investments in Other Financial Instruments					
Home Equity and Subprime Securities					$5,332,548
Nonprime and Home Equity Retained Interests					$691,575
Total High Risk Financial Instruments and Loans	**$70,074,924**	**$61,584,577**	**$52,069,694**	**$28,843,599**	**$26,748,195**
Shareholders' Equity	$14,655,871	$14,317,846	$12,815,860	$10,310,076	$8,084,716
Excess of High Risk Instruments to S/H Equity	**$55,419,053**	**$47,266,731**	**$39,253,834**	**$18,533,523**	**$18,663,479**
High Risk Instruments to Shareholders' Equity	**478%**	**430%**	**406%**	**280%**	**331%**

On July 24, 2007, in a conference call that reportedly lasted more than three hours, Countrywide announced its earnings for the second quarter ended June 30. While the company realized earnings of $919 million for the six months then ended, the results represented a decline of approximately 35 percent from the comparable period in 2006. Operating cash flow deficits were some $6.8 billion, partly as a result of Countrywide's inability to sell off loans.

Delinquencies on Countrywide's sub-prime loan servicing portfolio rose to more than 20 percent, up from 13.7 percent in the prior year and home equity loan delinquencies jumped to 3.7 percent. In all, Countrywide announced that it recorded nearly $445 million of loan losses and took an additional $697 million impairment charge on its retained interests from securitizations, a tenfold increase over the comparable six-month period in the prior year. Trends matter and Countrywide's reports drove a broader market selloff that resulted in a two percent decline in the S & P 500, its largest drop in 5 months, and Countrywide's shares declined by 11 percent that day to $30.50.[54]

When Countrywide filed its Form 10-Q with the SEC on August 9, 2007, it stated, in part:

… As of June 30, 2007, we have $190.3 billion in available sources of short-term liquidity, of which we consider $46.2 billion highly reliable and available. We believe we have adequate financing available to meet our currently foreseeable needs …[55]

In fact, at the date of its filing, CFC had less than a week. On August 15, 2007, the market for Countrywide's commercial paper simply shut down. Within eight days, Bank of America purchased some $2 billion of Countrywide's preferred shares, paying a 7.25 percent dividend. Along with the preferred share purchase, Bank of America acquired an option to convert the preferred into CFC common shares at $18

[54] See Home Lender's Woes Fuel Market's Decline, The New York Times, July 24, 2007 and Page 2 of CFC Form 10 Q for the three months ended June 30, 2007

[55] See Page 93 of CFC Form 10-Q for the quarter ended June 30, 2007

each. On August 23, 2007, the day the transaction was announced, CFC common shares traded as high as $24.46 and closed the day at $22.02. The Bank of America equity infusion coupled with Countrywide's draw down of its $11.5 billion bank lines, allowed CFC to survive the August liquidity crunch, but the transaction was widely viewed as a rescue because of the onerous preferred share dividend and the in-the-money option exercise price. [56]

The benefits of the new equity also permitted Countrywide to endure as an independent entity until January 11, 2008, when Bank of America announced it would acquire Countrywide for approximately $4.1 billion in an all-stock transaction.[57] The $4.1 billion valuation was at a massive discount to CFC's December 31, 2007 book value of nearly $14.7 billion,[58] but by then, much of Wall Street shared much of Mr. Mozilo's early and apocalyptic vision of subprime, home equity and Pay-option lending.

For the year ended December 31, 2007, CFC reported a net loss of more than $703 million. The amount included nearly $2.3 billion of loan loss provisions and some $2.38 billion of impairment charges on its retained interests from securitizations. The day before the Bank of America announcement that it would acquire Countrywide for about $7.16 per share, CFC shares increased 51 percent to $7.75. After the official announcement on January 11, 2008, Countrywide's shares declined to $6.33.

Once again, the Corporate Risk Management Committee did no stress tests or other analyses to assess any of the risks related to these mortgage investments and securitizations and continued to ignore the CEO's repeated risk warnings.

8 Summary

Howard Schilit (2010), the well-known forensic accountant, has stated that the one lesson we have learned from history is that we have learned nothing from history, and he has recommended that to find fraud, we must study the history of fraud. Similarly, this observation can carry over to study the history of risk management leading up to the economic recession in order to understand and develop good risk management practices by both management and boards of directors for better corporate governance. Thus, this paper has developed six risk management lessons learned from the history of Countrywide:

1. Do not ignore ubiquitous high risk loans and other high risk activities
2. Do not ignore the initial risk warnings of senior management executives
3. Do not stay the course against ongoing risk warnings
4. Do not be seduced by significant profits on high risk loans and other high risk activities
5. Do a cost/benefit analysis on the securitization of loans and other high risk activities
6. Do stress tests on key risks which may be realized

Also, the Securities and Exchange Commission (SEC) charged Mozilo with insider trading and securities fraud on June 4, 2009. On Friday, October 15, 2010, Mozilo reached a settlement with the SEC. He agreed to pay $67.5 million in fines and accepted a lifetime ban from serving as an officer or director of any public company. The SEC settlement was the largest by an executive connected to the 2008 housing collapse and financial crisis. The fine represented a small fraction of Mozilo's estimated net worth of $600 million and Countrywide paid $20 of the $67.5 million penalty, due to an indemnification agreement that was part of Mozilo's employment contract. The terms of the settlement allowed Mozilo to avoid acknowledging any wrongdoing and in February 2011, the criminal investigation against him was dropped.

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[56] See Countrywide Gives Bank of American $447 Million Gain, Bloomberg.com, dated August 23, 2007

[57] See Countrywide rescue: $4 billion, CNNMoney.com, dated January 11, 2008

[58] See Page 48 of 2007 CFC Form 10-K

FORWARD-LOOKING QUANTITATIVE INFORMATION IN ITALIAN LISTED FIRMS. EMPIRICAL EVIDENCE IN 2006-2010

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Abstract

The topics of voluntary disclosure of firm is an open debate. Literature has been variously focused on different path take into account the Stakeholder Theory (Freeman, 1984). In this paper we deal with an emerging issue related to the IASB document "Management Commentary. A framework for presentation". In particular, objective of the research is to provide evidence on the potential relations between financial and governance-related variables with measures of the existence and quality of forward-looking information in the Annual Reports. Adopting a content analysis approach with the help of statistical analysis, we considered annual disclosure reports of a sample of 218 Italian industrial listed firms in the period 2006- 2010. We found positive correlations between forward looking related variables and other debt related, asset related, profit and loss related and governance variables.

Keywords: Management Report, Management Commentary, IFRS, IASB, Italian Market

JEL Classification: G14, M42, M43

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1 Introduction

Within the set of documents that traditionally Italian listed companies must produce in compliance with mandatory rules, codes of conduct or common practice, the Management Discussion and Analysis (MD&A) report has always been the most de-structured element. In fact, the primary function of the MD&A report is to provide an overall picture of the business performance achieved during the reporting period on the basis of summarized economic results and with reference to the impact of the reporting entity's activities on the broader business environment it operates in; as a consequence, this report combines in the same place information which are different by nature (i.e. CSR-related, Environmental Reporting, future business perspectives) and format (i.e. narratives as well as raw figures and point or range estimates) and this results in a document whose characteristics largely vary between different preparers.

In this context, the Legislative Decree n. 32/2007 took a step forward in trying providing a minimum required level of information. Since the MD&A report, as mentioned, is still a document presenting "general aspects" of the business of a firm, some specific key elements have been identified and made "mandatory" by the Decree 32/2007. However, the Decree does not mandate a specific disclosure content for any of these mandatory elements.

In fact and for example, one of the major points of "generality" is reported in the Italian Civil Code (art 2428, paragraph 6, comma 2), which introduces the "predictable outlook of operations" as mandatory information. In the domestic conceptual framework, the Annual Report is not only a statement of backward information on "past operations" since it is prepared in a "going concern perspective" (this focus is strengthened in the IAS-IFRS framework). Consistent with this evidence, it can be useful that even the MD&A report can be prepared adopting the same perspective.

However, without this mandate, no detailed requirements are provided for by the Italian legislator, nor by the Italian standard setter. So that, while companies are mandatory to disclose forward-looking information on the business, no guidelines on this class of information have been expressly provided, either by the legislation or by

the Italian accounting standard setter, the Organismo Italiano di Contabilità (here and after, OIC).

Differently, in the IASB document "*Management Commentary. A framework for presentation"* (December 2010) – a guide for Preparation of the MD&A that is a similar document as of management report prepared by Italian listed companies – the topic of the "forward-looking information" is carefully analyzed. The IASB conceptual framework underlines that "*Explanations of management's perspective of the entity's direction, targets and prospects, in Additions to explanations of past events, can help users of the financial reports to develop expectations about the entity from its past performance and current state*" (IASB 2010, par. BC 38).

In the traditional perspective of the IFRS financial statements firm disclosure has to be useful and verifiable by investors. So that, since "*forward-looking information might present an over-optimistic picture of the entity"* (IASB 2010, par. BC 39), the IASB suggests that "*Management should disclose the assumptions used in providing forward-looking information"* (IASB 2010, p. 18).

2 Objective of the paper

Given the above, the paper presents the "state of the art" on the disclosure provided in the MD&A Report. We considering a five year period before the issuance of the IASB document "*Management Commentary. A framework for presentation"*. In particular, the main objective of the research is to provide evidence on the potential relations between financial and governance-related variables with measures of the existence and quality of forward-looking information in the Annual Reports of a sample of Italian firms listed in the period considered. Even if it there's no compulsory ways to provide this kind of information for Italian listed companies, this MD&A section represents a useful framework to orient the content of management report.

3 Literature review and hypothesis development

3.1 The key role of disclosures: a look at literature

In modern capital markets, financial disclosures – either voluntary or mandatory – are a means of solving information asymmetry (Akerlof 1970) and agency-related (Jensen and Meckling, 1976) issues. "*The optimal allocation of resources between savers and entrepreneurs is critical to the efficient functioning of any economic system. A two-stage relationship occurs between these two categories of economic operators: initially, a natural information asymmetry exists whereas, on one hand, entrepreneurs have first-hand information regarding the actual and expected value of their business, and in their intent to attract household financial resources may overstate this value; on the other hand, savers necessarily have to rely on entrepreneurs to gather the information they need in order to make their investment decisions. Once entrepreneurs have secured these resources they are able, under certain circumstances, to expropriate these savings and manage them to achieve their own economic objectives which may differ from those of the savers*." (Healy and Palepu 2001, p.407).

Healy et al. (2001) in their literature review on various research streams arising from voluntary and mandatory disclosures-related issues state that: "*The information and agency frameworks raise a number of important questions for financial reporting and disclosure researchers. These include questions on (i) the role of disclosure and financial reporting regulation in mitigating information and agency problems, (ii) the effectiveness of auditors and information intermediaries as a means of increasing the credibility of management disclosures and uncovering new information, (iii) factors affecting decisions by managers on financial reporting and disclosure, and (iv) the economic consequences of disclosure*." (p. 410).

Verrecchia 2001 provides a taxonomy of accounting literature on disclosures by identifying the following three categories: ''*association-based disclosure''*, ''*discretionary-based disclosure*'' and ''*efficiency-based disclosure*''. Dye (2001) makes a distinction in the disclosure literature into *mandatory disclosure* and *voluntary disclosure*. Particularly the latter deals with "*a special case of game theory with the following central premise: any entity contemplating making a disclosure will disclose information that is favorable to the entity, and will not disclose information unfavorable to the entity*" (p. 184). Al-Razeen and Karbhari (2004) provide a wider taxonomy of annual corporate disclosure distinguishing into *mandatory* disclosures, *more-in-depth mandatory* disclosures, which is information that exceeds the minimum mandatory requirements, and *other voluntary* disclosures.

Over the years, academics, accounting standard setters, professional bodies and other international organizations (AICPA 1994, ACCA 1999, OECD 2011, CICA 2001, ICAEW 2000, FASB 2001, IASB 2010, NZICA 2011, FASB 2012) have devoted significant efforts into trying building some degree of consistency between *mandatory* and *voluntary* disclosures (including corporate social responsibility disclosures), trying

to discipline in particularly the voluntary information contained in the MD&A reports in order to make information disclosed, voluntary and mandatory, more useful for each class of stakeholders. Particularly, literature on voluntary disclosures has investigated, on one hand, how different levels of disclosures – both in terms of volume and quality – are driven by entity-specific factors and stakeholder-management policies; and, on the other hand, what is the relationship between these disclosures and analysts forecasts and future earnings. In the context of Stakeholder Theory (Freeman, 1984), the presence of voluntary disclosures is a signalling element that may suggest how an entity addresses the requests of the different interested parties it deals with. The basic concepts of this theoretical framework, especially for what concerns social and environmental disclosures, were further elaborated into the Legitimacy Theory (Suchman 1995) which holds that entities are bound to the broader community they belong to by a social contract which they need to comply with and which influences their disclosure policies. In general terms, voluntary disclosures include two macro categories of information sets:

(i) disclosures which are included in regulated annual reports statements (financial statements, footnotes, MD&A, etc.); and

(ii) disclosures provided through voluntary investor communication, such as analysts' presentations, press releases and other non-regulated corporate reports.

3.2 A specific focus on voluntary disclosures

In this work, we focus our attention on the former group of above mentioned disclosures. Looking at Annual Reports, instead of press releases or other sources of voluntary corporate communication, is consistent with the approach taken in main stream literature (Botosan 1997, Lang and Lundholm 1993) where Annual Report MD&A disclosures have proved to be consistent with other disclosure communication means. Moreover, using Annual Reports ensures that voluntary information is consistent – at least in general terms – with the audited financial statements.

Particularly, in this paper we consider the voluntary content of mandatory disclosures by analysing quantitative forward-looking information of Italian listed firms reported in the section of the annual MD&A statement. In this section, top management discusses the "*foreseeable evolution of the business*" (translation of "Evoluzione prevedibile della gestione" as reported in Italian financial statements). This is somehow a peculiarity in the 'world' of voluntary disclosures: Italian legislator asks to top management to provide information on the future prospects of the business. Nevertheless, he does not provide any guidelines on 'how' to say it nor 'what' to disclose. Due to this uncertainty on the minimum content to provide in order to be compliant with Italian mandatory disclosure framework, and in order to map the "state of the art", we analyzed the characteristics of firms providing differing levels and types of disclosures in this section of the MD&A report. So that, our research follows the path of previous literature which generally focuses on searching the main drivers of forward looking voluntary disclosures.

Focusing on *voluntary* disclosure, some authors (Tarca and Seah 2006, Tarca et al. 2011) have analyzed the association between different regulatory frameworks and the type (e.g. forward-looking vs. historical, financial vs. non-financial and quantitative vs. qualitative), quantity and quality of these disclosures. Beretta and Bozzolan (2008) note that quantity and quality of voluntary disclosures are generally considered as closely intertwined so that the former determines the latter. Authors provide more in depth investigation on the qualitative aspect of disclosures, concluding that "*disclosure is of high quality when it is positively associated with accuracy and negatively associated with the dispersion of analysts' estimates*" (p. 20).

These findings show that voluntary disclosure, when located both in the MD&A and in other parts of companies' Annual Reports, plays a key role in helping analysts and other users of financial statements in better interpreting the content of the "raw numbers" reported in the statements. The importance of investigating the relationship between the quantitative information disclosed by companies is also testified by the effect that the degree of disaggregation of the information being presented and their accuracy has on analysts' judgement and their alignment with management's future expectations (Lansford et al. 2013). Also previous literature has addressed the existing relationship between the existence of discretionary disclosures and the nature of the information to disclose (favourable vs. unfavourable), whereas a manager "*decides to either release or withhold*" financial information "*on the basis of the information's effect on the asset's market price*" (Verrecchia 1983, 2001).

Verrecchia also recalls that: "*The idea that the possessor of superior information or insight will signal what he knows either directly or through his actions to achieve some economic benefit has been studied by a number of economists in a variety of institutional settings*" (p. 180). Particularly, earlier contributions have qualified discretionary disclosures in terms of

"good" or "bad" news and tried to identify whether any delays in reporting financial information (either mandatory or voluntary) were associated to some extent to the nature of the information itself (either good or bad) (Ball and Brown 1968) .

In general, according to Barth et al. (1997) previous literature suggests that "*firms have incentives to disclose favorable and unfavorable information to investors, because such a disclosure policy, ceteris paribus, increases the value of the firm*" (p. 41). Also, Dye (1998, 2001) investigate voluntary disclosures from the investor's point of view, in the context of a "*a model of trilateral information asymmetry, with investors potentially ignorant of what the firm knows, the firm ignorant of what investors know, and investors ignorant of what other investors know*" (p. 261). Lee (2007) shows that a significant association exists between the a firm's (or a group of firms') ownership structure and the level of voluntary disclosures, particularly "*the greater the separation of cash flow rights [i.e. ownership] from control rights [i.e. voting rights], the greater the incentives of the controlling owner to expropriate the wealth of minority shareholders because the controlling owner receives the entire benefit of private rent extraction, but only bears a fraction of the cost. Thus, controlling owners have greater incentives to reduce firm-level voluntary disclosure to hide their private benefits of control*" (p. 394).

Also, previous studies on voluntary disclosures have shown that increasing external financing needs lead to higher level of voluntary disclosure to reduce information asymmetry (Frankel et al., 1995; Healy et al., 2001). Lang and Lundholm (1993) consider six potential explanatory variables grouped into three categories (performance, structural and offer variables) to explain the determinants of the level of voluntary disclosures.

Other studies examine the association between corporate disclosure and corporate governance related characteristics, such as corporate ownership, type of ownership rights and composition of the board of directors. Considering the hypothesis that managerial ownership may mitigate agency costs and reduce investors' information needs, Gelb (2000) provides evidence that firms with a lower number of managers in the ownership structure tend to offer a more extensive disclosures in their Annual Reports. Bushee and Noe (2000) found a positive association between analysts' disclosure ratings and institutional ownership and nature of shareholder rights. Eng and Mak (2003) found that firms with lower managerial ownership and a lower percentage of outside directors have greater voluntary disclosure. According to Gul and Leong (2004), a sample of firms, listed in Hong Kong market presenting CEO duality, show lower level of voluntary disclosure especially when the proportion of expert outside directors is lower. Ajinkya et al. (2005) found that firms with a higher percentage of outside directors in the board and a greater presence of institutional investors are more likely to issue earnings forecasts with higher frequency. Cheng et al. (2006) found evidence that firms with stronger shareholder rights regimes and higher levels of financial transparency have lower costs of equity capital and higher forecasts accuracy.

Healy and Palepu (2001) make a review of various research streams in voluntary disclosures originate from two different positions focusing on the motivations behind voluntary disclosures. To our purposes, we recall the following: (i) studies where voluntary disclosures help addressing conflicts of interest between managers and shareholders (see below 1-5); or researches consider the economic constraints to voluntary disclosures (see below 6).

(1) capital markets transaction hypothesis: before a debt or equity issue, managers use disclosure to influence investors' perceptions of a firm (*ex multis* Healey and Palepu, 1993, 1995; Myers and Majluf, 1984; Barry and Brown, 1985-1986; Merton 1987; Lang and Lundholm, 1993-1997).

(2) Corporate control contest hypothesis: given the risk of job loss accompanying poor stock and earnings performance, managers use corporate disclosures to reduce the likelihood of undervaluation and to explain away poor earnings performance (Brennan, 1999).

(3) Stock compensation hypothesis: firms that use stock compensation extensively are likely to provide additional disclosure to reduce the risk of misevaluation or to meet any restrictions with respect to insider trading rules (Noe, 1999; Aboody and Kasznic, 2000; Miller and Priotroski, 2000).

(4) Litigation cost hypothesis: the threat of shareholder litigation for inadequate or untimely investor disclosure encourage firms to increase voluntary disclosures (Skinner 1994, 1997; Francis et al., 1997; Miller and Priotroski, 2000).

(5) Management talent signalling hypothesis: talented managers have an incentive to make voluntary earnings forecasts to reveal their type (Trueman, 1986).

(6) Proprietary cost hypothesis: the degree of voluntary disclosure depends on concerns that such disclosures can damage an entity's competitive position in the market (Verrecchia, 1983; Darrough and Stoughton, 1990; Wagenhofer, 1990; Feltham and Xie, 1992; Newman and Sansing, 1993; Darrough, 1993; Gigler, 1994; Hayes and Lundholm, 1996; Piotroski, 1999).

Whatever the motives justifying the issuance of voluntary disclosures, forward looking information are an important aspect to look at for at least two main reasons.

First of all, in the existing literature, voluntary disclosure statements are generally assessed not only in terms of 'word counts', but also by means of weights indicating the degree of disclosure quality (Botosan, 1997; Botosan and Plumee, 2002; Bozzolan et al., 2003; Beretta and Bozzolan, 2008), whereas higher weights are generally assigned to forward looking information (as opposed to historical or backward-looking voluntary disclosures). This is because, companies disclosing voluntary forward looking information – especially when they are listed – do so with the aim of adding value to their communication with their stakeholders in order to reduce the degree of information asymmetry between managers and investors and benefit from a lower cost of capital (Lundholm and Van Winkle 2006). Moreover, forward looking voluntary disclosure have a signalling power as they let disclosing entities be potentially perceived by their stakeholders as being confident (with respect to the credibility of voluntary disclosures, and to the risks associated with unfaithful statements in the US, see *ex multis* Johnson et al. 2001) in their capabilities to foresee the future prospects of the business so that they do not mind sharing this information with them.

Secondly, focusing on forward looking disclosures included in the MD&A report is particularly important also when considering the broader field of corporate financial reporting. In fact, although financial statements, depending on the extent to which current measurements are used in corporate accounts, might embed a variable amount of forward-looking information which are built in the figures presented in the statements, forward looking narratives may help 'putting some colour' around these hidden prospective information. On the other hand, financial statements may underestimate some items because accounting standards do not allow for their proper recognition and measurement and therefore, because of this underestimation, financial statements may not ultimately provide relevant prospective information to their stakeholders. In this case, forward looking information and other voluntary disclosures make up for this lack of relevance in the financial statements by providing what is necessary to know in addition to the raw accounting figures (this is particularly true when looking at specific sectors – such as high technology ones – where the value relevance of financial statements, as measured in terms of the explanatory power of book values with respect to market values, is limited because of the absence of proper intangible assets accounting, see *ex multis* see Amir and Lev 1996). In other words, forward looking information, especially when they are expressed in quantitative terms (Guthrie and Pettie, 2000), may provide important information to understand the context in which current measurements are performed in the mandatory statements and, by this means, assess to what extent past performance may be indicative of future performance (SEC 1989, IASB 2010).

Several Authors have considered under a number of different viewpoints the role of forward looking information in the *economics of disclosures*. Some have focused their efforts on trying assessing the ability of forward looking information to explain future earnings. For example, as reported, Beretta and Bozzolan (2008) consider forward looking information on a sample of Italian firms. They provide evidence that the change in analysts' forecasts on the firms being surveyed is significantly and positively associated with the quality of such information and that, therefore, these disclosures are useful for users of companies' financial reports. Lundholm and Myers (2001) find evidence that a trade-off exist between the informative power of accounting earnings and the volume of voluntary disclosures with respect to market returns of stocks.

Some authors have put efforts in trying identifying the determinants of voluntary forward looking disclosures. For example, Miller and Piotroski (2000) show that firms with stronger and more persistent earnings news are more likely to provide forward-looking disclosures during the turnaround period. They also show that firms operating in high litigation industries, with strong institutional ownership, having greater stock option-based compensation and facing larger non-equity stakeholders are more likely to provide disclosures. Menicucci (2013) considers the association between firms' characteristics and the level of forward-looking information as measured in terms of word count of forward looking statements, in management commentaries of 40 Italian listed companies for fiscal year 2010. This Author considers as explanatory variables for the level of disclosure of the sample, book value on total assets as a proxy of firm size, the return on equity as a measure of profitability and the debt to equity ratio as a measure of the financial leverage of the firm. This study shows a significant negative association between the volume of forward looking information and profitability, while other variables present insignificant correlations.

Also Aljifri and Hussainey (2007) tried to identify the drivers of corporate voluntary forward looking disclosures in the context of the United Arab Emirates by reference to five firm explanatory characteristics, adopting a quantitative

approach based on counting the number of sentences considering forward looking expressions and dividing it by the number of total disclosure sentences. Particularly this study shows that there is a significant positive association between the level of forward looking disclosures and the degree of financial leverage, while there is a negative association with the profitability measure. More recently, a contribution from Li (2010) considering a sample of Chinese listed firms, considers an interesting approach to forward looking voluntary disclosures from both a methodological and an outcome perspective. The author looks at computerised statistical approach which allows for a more powerful data collection than a dictionary approach (Stone 1997). By adopting this methodology, the paper finds that the tone of forward looking statements– whether it is positive or negative – as considered over a thirteen year period through the Bayesian measure utilised is significantly associated with future earnings.

Beattie et al. (2004) found an association between quantity and quality of disclosures and built a valuation framework for voluntary disclosures which includes a measure of the extent to which disclosure are spread among different topics. Beretta and Bozzolan (2008), moving forward from Beattie's framework (2004), build a new system to estimate the qualitative and quantitative characteristics of corporate voluntary disclosures by building up a multidimensional index and applying it to a sample of 85 industrial Italian listed companies over a three-year period.

3.3 Research Question

At this stage of the research, we focused on financial and governance related characteristics of those Italian listed firms which provide (and to the extent they do) forward looking quantitative information. In our opinion, trying to identify financial and governance related determinants – if any – of a comprehensive index of voluntary disclosures (and especially of forward looking information) is necessarily a second step of a broader analysis which relies, in the first place, on a preliminary assessment of the characteristics of firms which generally provide different types of such information with some evidence that the information provided is somehow reliable.

On the contrary, a low level of disclosure (along the three above mentioned dimensions) of such information for the whole population of Italian stock exchange could reduce the importance of any identified association.

Therefore, the scope of this paper can be summarized as a time series investigation of all Italian listed companies (excluding banks, insurance companies and other financial institutions), to find the financial and governance-related characteristics of those companies which provide quantitative forward looking information (and, on the other hand, of those which do not provide).

For what concerns financial characteristics of firms, we consider three dimensions: (A) income variables, (B) debt related variables and (C) asset variables. For governance related characteristics (D) ownership variables and (E) board of directors variables have been considered.

Stated that, research questions can be summarized as follows

RQ1: are there any correlations between the existence and quality of forward looking disclosures and A, B and/or C factors?

RQ2: are there any correlations between the existence and quality of forward looking disclosures and D and/or E factors?

4 Methodology

4.1 Methods used in previous research

This analysis covers disclosures in the financial statements of a sample of Italian listed firms between 2006 and 2010 following the idea of Evans and Taylor (1982), who recommend in-depth examination of published financial statements to measure the degree of disclosure. This multi-period analysis permits a more comprehensive picture of the implementation process and also the various methods used.

The framework chosen by Woods and Marginson (2004), Linsley, Shrives and Crumpton (2006), and Woods, Dowd and Humphrey (2009), who used *content analysis* as the main tool of research are also interesting. Reynolds et al. (2008) used a *survey-based analysis*. Other studies utilize quantitative analysis, in particular *cross-sectional models*, in which each type of disclosure index is regressed on proxy-related variables in order to detect the existence of a statistically significant relationship (Poshkwale & Courtis, 2005; Mohan, 2006). Researchers have also tried to find all accessible measures of disclosure quality (Healy & Palepu, 2001; Beattie, McInnes & Fearnley, 2001).

This study adopts a content approach similar to both Linsley et al. (2006) and Woods et al. (2009). Linsley et al. (2006) used a sample of nine pairs of UK and Canadian banks, selected according to asset value, to highlight the differences in banking risk disclosure between the two markets and isolate differences that are country-specific.

Woods et al. (2009) used the top 25 banks of the world in terms of market capitalization. Their cross-country investigation, conducted on the Annual Reports of banks in three different time

intervals ("*start (2000), mid (2003), end (2006)*", p. 11), highlighted "*changes in disclosure practices over time*" (p. 15); unlike, Linsley et al. (2006) did not investigate on changes over time.

4.2 Methods used in the research

The analysis applied in this paper is different from other content researches because at this stage the paper limits the sample only to firms adopting IAS-IFRS principles in order to observe the quality of disclosure of a group of entities which are homogeneous in terms of the reference disclosures framework and to find out whether "discretional responses" to the requirement to disclose forward looking information in the MD&A report are correlated with economical and governance related elements.

Annual reports from the five-year period (2006-2010) of a sample of 218 Italian listed firms have been considered to investigate the nature and characteristics of "*Forward-Looking*" disclosures in the Italian market. The period selected has been chosen in order to comprehend some years before financial crisis in 2008 and some years after.

4.3 Data set

Data have been collected from Annual Report of each company, once the firms of the sample released the financial document. So that, most accounting data are related to December 31 of each year observed (2006-2010), while the few remaining are related to September 30 or June 30 (according to the different publication date of annual reports).

4.4 Sample

The final sample is made up of 218 Italian industrial companies all listed as of 2011, December 31, regarding their reporting data since 2006 to 2010. The total observation figure is 933. As we are working with an unbalanced sample, some data are incomplete or missing. Some of the firms, in fact, have not always been listed in the period 2006 – 2010; therefore, they have been included in the sample since their listing date. Even if for those companies data are incomplete, we believe that their reporting can still be of help in order to highlight on the practices adopted in disclosing "forward looking" information before the adoption of the IASB "Management Commentary". Entities belonging to the financial sectors, such as banks and insurance companies, pure holding companies and all companies which as of year-end 2011 (December, 31) are no longer listed have been excluded from the investigation.

The list of surveyed companies can be observed in Table A.1**.**The investigation conducted provides test related to a first step of the analysis on the disclosure content adopted by the sample observed in order to understand the "forward looking ability" of the firms to achieve the "performance goals" in the future.

In this research we firstly tested the existence of some correlation between financial and institutional (i.e. governance) elements and five forward looking disclosure attitude indexes.

The first index has been expressed as a dummy variable which considers the existence of any quantitative forward looking information disclosure regardless of their nature: if there is at least one of the following: income, debt or asset related information the index has a value equal to 1, otherwise 0.

The next three indexes investigate the existence of a specific type of forward looking information (income, debt or asset related as mentioned above).

The last index investigates the quality of forward looking information, in terms of reliability of the information provided. The detailed description of these indexes is provided here below.

4.5 Variable description

Forward Looking, dummy variable: the existence of any quantitative forward looking information per year, whatever the information type is. In Table A.2 some descriptive elements concerning yearly distribution of outlooks are shown.

P: the sum of yearly forward looking information concerning asset elements (R&D, Investments, and so on)

R: the sum of yearly forward looking information concerning income elements and configuration of income (such as sales, revenues, EBITDA, EBIT, net profits, and so on)

F: the sum of yearly forward looking information concerning financial structure related elements (Net Financial Position, Debt, and so on)

OUT_REL (Outlooks Reliability): the reliability of outlooks is calculated in terms of their potential to effectively predict actual results in the next fiscal year.

The index is calculated as the sum of following factors:

- 1 if the outlook fits actual results;
- 0.8 if outlook is worse than the actual results;
- 0.6 if the outlook is better than the actual results, but the latter is above 70% of the former;
- 0.4 if the outlook is better than the actual results, but the latter is between 30% and 70% of the former;

- 0.2 if the outlook is better than the actual results, but the latter is lower than 30% of the former;
- 0 if there is no outlook information.

In any case, if a firm provides more than one outlook information in the same year, the index is the weighted average of the numbered indexes. In Table A.3 some descriptive statistics concerning the yearly distribution of outlook reliability (expressed in terms of a triple qualitative option, "fit", "worse", "better") is shown.

IND, dummy variable: 1 if firm does belong to Industrial industries, 0 otherwise;

CONS, dummy variable: 1 if firm does belong to Commercial Goods industries, 0 otherwise;

SERV, dummy variable: 1 if firm does belong to Service industries, 0 otherwise;

ICT, dummy variable: 1 if firm does belong to ICT industries, 0 otherwise;

GOV, dummy variable: 1 if firm does belong to public sector, 0 otherwise;

Size: natural logarithm of Total Assets;

Rec&Inv: as a risky indicator, calculated as the sum of receivables and inventories, divided by total assets;

EBITDA/S: a profitability indicator, calculated comparing EBITDA, as a proxy of the cash generating attitude of the firm, and sales;

ROA: a profitability indicator, calculated comparing Ebit and total assets;

NFP/E: a leverage indicator, calculated comparing Net Financial Position and Shareholder Equity;

Foreign Funds, dummy variable: 1 in case of foreign funds have equity stakes of firm's, 0 otherwise;

Foreign Funds (%):calculated as a percentage of equity owned by foreign funds;

OD%: calculated as a percentage of outside directors in the Board.

5 Results

5.1 Descriptive Statistics and Pearson Statistics on Test Correlation

Table 1 shows main descriptive statistics (mean, median, minimum, maximum and first and third quartiles) of the untransformed variables used in the analysis.

Table 1. Descriptive Statistics

Variable	Mean	Minimum	Q1	Median	Q3	Maximum
Forward Looking (Y/N)	0,1318	0	0	0	0	1
P	0,0418	0	0	0	0	2
R	0,211	0	0	0	0	4
F	0,0268	0	0	0	0	2
OUT_REL	0,09297	0	0	0	0	1
IND	0,3012	0	0	1	0	1
CONS	0,2294	0	0	0	0	1
SERV	0,3387	0	0	1	0	1
ICT	0,1308	0	0	0	0	1
GOV Y/N	0,07931	0	0	0	0	1
SIZE	13,136	7,292	11,946	12,796	14,25	18,94
REC&INV	0,4095	0,02857	0,25717	0,39668	0,53862	4,96136
EBITDA/S	0,0641	-50,3273	0,0611	0,1143	0,1921	4,3535
ROA	0,03642	-0,5871	0,00224	0,04326	0,07801	0,85805
NFP/E	1,876	-45,17	0,06	0,462	0,929	761,036
FOR_FUNDS Y/N	0,5981	0	0	1	1	1
FOR_FUNDS %	0,08912	0	0	0,0283	0,1004	0,95
OD%	0,37447	0	0,25835	0,3333	0,45825	0,9

Table 2 presents Pearson correlations between the transformed variables. P-values associated to statistics are shown in Italics.

Pearson test correlation provides evidences to support several theoretical evidence from previous literature.

Table 2. Pearson correlation among the variables

	Forward Looking Y/N	P	R	F	OUT_REL	IND	CONS	SERV	ICT	Gov Y/N	LN TA	REC& INV	EBITDA /S	ROA	NFP /E	Out Funds Y/N	Out Funds
P	0.522																
	0.000																
R	0.837	0.304															
	0.000	*0.000*															
F	0.395	0.358	0.406														
	0.000	*0.000*	*0.000*														
OUT_REL	0.958	0.516	0.806	0.381													
	0.000	*0.000*	*0.000*	*0.000*													
IND	**-0.076**	**-0.122**	-0.044	0.006	**-0.067**												
	0.020	*0.000*	*0.175*	*0.847*	*0.039*												
CONS	0.059	-0.012	0.058	0.048	0.046	**-0.358**											
	0.073	*0.720*	*0.075*	*0.145*	*0.156*	*0.000*											
SERV	0.036	**0.086**	-0.013	**-0.084**	0.041	**-0.047**	**-0.390**										
	0.275	*0.009*	*0.691*	*0.010*	*0.216*	*0.000*	*0.000*										
ICT	-0.020	0.060	0.006	0.050	-0.023	**-0.255**	**-0.212**	**-0.278**									
	0.550	*0.065*	*0.853*	*0.128*	*0.482*	*0.000*	*0.000*	*0.000*									
Gov Y/N	**0.085**	**0.172**	0.045	**0.069**	**0.099**	-0.020	**-0.113**	**0.201**	**-0.114**								
	0.009	*0.000*	*0.168*	*0.036*	*0.002*	*0.546*	*0.001*	*0.000*	*0.000*								
LN TA	**0.199**	**0.236**	**0.201**	**0.246**	**0.220**	-0.020	**-0.077**	**0.210**	**-0.171**	**0.255**							
	0.000	*0.000*	*0.000*	*0.000*	*0.000*	*0.537*	*0.019*	*0.000*	*0.000*	*0.000*							
REC&INV	0.000	**-0.091**	0.025	0.005	-0.004	0.057	**0.142**	**-0.206**	0.033	**-0.145**	**-0.301**						
	0.996	*0.005*	*0.443*	*0.868*	*0.895*	*0.082*	*0.000*	*0.000*	*0.311*	*0.000*	*0.000*						
EBITDA/S	-0.074	0.018	-0.034	0.008	-0.056	0.031	0.011	-0.051	0.016	0.025	**0.103**	0.006					
	0.024	*0.580*	*0.305*	*0.802*	*0.087*	*0.344*	*0.749*	*0.122*	*0.631*	*0.442*	*0.002*	*0.856*					
ROA	0.061	0.022	**0.072**	0.002	**0.086**	**0.116**	0.033	**-0.096**	**-0.065**	0.057	**0.178**	0.040	**0.156**				
	0.064	*0.495*	*0.027*	*0.962*	*0.009*	*0.000*	*0.311*	*0.003*	*0.047*	*0.083*	*0.000*	*0.217*	*0.000*				
NFP/E	-0.016	-0.009	-0.014	-0.006	-0.017	-0.035	-0.017	0.054	-0.007	-0.017	-0.048	0.005	0.005	-0.015			
	0.616	*0.791*	*0.662*	*0.856*	*0.604*	*0.292*	*0.595*	*0.100*	*0.832*	*0.612*	*0.142*	*0.867*	*0.881*	*0.655*			
Foreign Fun	**0.067**	0.039	**0.092**	**0.101**	**0.070**	0.014	0.016	**-0.088**	**0.085**	**-0.083**	**0.241**	-0.020	0.047	**0.178**	-0.042		
	0.039	*0.233*	*0.005*	*0.002*	*0.033*	*0.669*	*0.633*	*0.007*	*0.010*	*0.011*	*0.000*	*0.534*	*0.151*	*0.000*	*0.205*		
Foreign Fun	-0.061	-0.045	-0.036	-0.011	-0.058	0.032	**-0.067**	-0.031	**0.083**	**-0.120**	0.060	-0.053	0.019	**0.070**	-0.018	**0.471**	
	0.062	*0.166*	*0.273*	*0.735*	*0.079*	*0.331*	*0.042*	*0.345*	*0.011*	*0.000*	*0.066*	*0.103*	*0.554*	*0.033*	*0.581*	*0.000*	
OD%	**0.094**	**0.089**	**0.086**	0.061	**0.096**	**-0.150**	0.033	**0.137**	-0.029	**0.344**	**0.266**	**-0.106**	**0.089**	0.048	-0.009	0.052	-0.004
	0.004	*0.006*	*0.009*	*0.064*	*0.003*	*0.000*	*0.311*	*0.000*	*0.379*	*0.000*	*0.000*	*0.001*	*0.006*	*0.143*	*0.778*	*0.115*	*0.914*

As Table 2 shows very clearly, many are the correlations between different variables. We decided to highlight columns regarding elements of interest, in fact only the first five columns, named Forward Looking, P, R, F and OUT_REL are of our main stake for this analysis.

First of all, we have to underline that for what concerns the sector columns any of the observed variables presents some positive and/or negative correlation. The descriptive relevance of these issues make us avoid any comment, but few words may be useful to highlight that ICT sector seems to be no correlated with any of outlook-related variables. So, we can conclude by saying that except this latter sector, the industry membership presents quite different correlations with the forward looking disclosures attitude.

Forward Looking: this dummy variable is positively correlated with the public sector ownership (and this broadly consistent with the hypotheses of Eng and Mak, 2003), the size of companies (Cerf, 1961; Cooke, 1991), the presence of Foreign Funds among the owners (not with the higher percentage of those) and with the percentage of outside directors in the Board (Eng and Mak, 2003). These links seem to be also strongly consistent with several theoretical hypotheses: when governance is built consistently with best practices, or is impacted by the presence of foreign professionally structured investors and/or public sector empowered probably you can find a wider voluntary disclosure, especially about forward looking elements.

P: this variable is positively correlated to the existence of public sector inside the ownership, to the firm size and to the growing presence of outside directors, while it is negatively correlated to the Rec&Inv variable (proxy for a degree of riskiness of financial statement) (consistently with Ferguson et al., 2002 which consider a similar risk indicator, i.e. liquidity ratios)). For former correlations we already argued while commenting Forward Looking results previously. For the latter, otherwise, we note that when current assets are proportionally higher among other total assets, firms do not favorably disclose asset-related forward looking information. On one hand, this is consistent with the general caution principle that traditionally Italian annual report preparers comply with, on the other hand this element shows a particular element of weakness: as current assets are higher, asset related information should be more crucial, so that forward looking ones have to be possibly disclosed.

R: this variable is positively correlated to firm size, the existence of Foreign Funds among the owners (Naser et al., 2002) and the percentage of outside directors in Board of Directors. Moreover, an interesting element is useful to be noted: the positive correlation between R-index and Return on Assets. This seems to be particularly meaningful: the greater the operating profitability of the company, the higher its willingness to disclose income-related forward looking information (in contrast to Aljifri & Hussainey, 2007).

F: this variable is positively correlated to the public-sector ownership, the presence of foreign funds among shareholders, and the wider presence of outside directors in the Board; moreover, F-index is negatively correlated to SERV sector.

OUT_REL: this variable (discrete, not dummy) is positively correlated with several governance-related elements: the public sector ownership, the existence of foreign funds among qualified shareholders and the greater presence of outside directors; it's also positively correlated to firm size as well to return on assets. The correlation between firms profitability and their ability to fit previous forward looking targets seems to be coherent with the management general ability to achieve objectives and to predict future evolutions, both market evolution and firm's results evolution.

6 Conclusions, implications and further research

We note that only 132 firms have disclosed forward looking information in five surveyed years. Those disclosing furthermore provide only few forward looking elements, and they often do not disclose again in following years the same information previously disclosed. This result underlines that listed firms in the Italian Stock Exchange tend to provide only limited volume of information about future in terms of forecast and performance expected. It seems that MD&A Report of Italian listed firms is still not completely addressed to disclose useful information for external investors. It still suffers of opacity, since firms probably prefer to hide any specific data on range of profit and cash flow expected.

As the Tables provided clearly show, there are several positive correlations between Forward looking related variables and other debt related, asset related, profit and loss related and governance variables.

We believe that the most useful information concern the positive correlations of several of Forward looking related variables and corporate governance related factors, such as Government ownership, outside directors percentage and foreign funds presence among shareholders. These correlations seem to provide a still incomplete, but clear picture of the necessary road map to increase and strengthen voluntary disclosures (both for what concerns non mandatory information, and the discretionary content of information compulsorily required by laws or self-regulation codes).

Further research can analyze if this increasing path has progressed, and if there are reasonable effects over economic fundamentals, or a reduction in the volatility of stock prices and returns and level of exchanged volumes.

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Appendix A

Table A.1. List of surveyed Companies

A2A	BRIOSCHI	ENERVIT	INTERPUMP GROUP	PIQUADRO	STEFANEL
ACEA	BULGARI	ENGINEERING	IRCE	PIRELLI & COMPANY	TAS
ACE GAS- APS	BUONGIORNO	ENI	IREN	POLIGRAFICA SAN FAUSTINO	TELECOM ITALIA
ACOTEL GROUP	BUZZI UNICEM	ERG	ISAGRO	POLIGRAFICI EDITORIALE	TELECOM ITALIA MEDIA
ACQUE POTABILI	CAD IT	ERG RENEW	ITWAY	POLTRONA FRAU	TERNA
ACSM- AGAM	CAIRO COMMUNICATION	ERGYCAPITAL	ITALCEMENTI	PRAMAC	TERNIENERGIA
AEDES	CALEFFI	ESPRINET	JUNVENTUS FOOTBALL CLUB	PRELIOS	TESMEC
AEFFE	CALTAGIRONE EDITORE	EUROTECH	K.R. ENERGY	PREMUDA	TISCALI
AEROPORTO DI FIRENZE	CAMPARI	EUTELIA	KERSELF	PRIMA INDUSTRIE	TOD'S
AEROPORTO TOSCANO	CARRARO	EXPRIVIA	KINEXIA	PRYSMIAN	TXT
AICON	CASA DAMIANI	FALK RENEWABLES	KME GROUP	RATTI	UNI LAND
ALERION CLEAN POWER	CDC POINT	FASTWEB	LA DORIA	RCF GROUP	VALSOIA
AMPLIFON	CEMBRE	FIAT	LANDI RENZO	RCS MEDIA GROUP	VIANINI INDUSTRIA
ANSALDO STS	CEMENTIR HOLDING	FIDIA	LAZIO S.S.	RDB	VIANINI LAVORI
ANTICHI PELLETTIERI	CENTRALE DEL LATTE DI TORINO	FIERA MILANO	LE BUONE SOCIETA'	RECORDATI	YOOX
ARENA	CHL	FINARTE CASA D'ASTE	LOTTOMATICA	RENO DE MEDICI	YORKVILLE BHN
ARKIMEDICA	CIA	FINMECCANICA	LUXOTTICA	REPLY	ZIGNAGO VETRO
ASCOPIAVE	CICCOLELLA	FNM	MAIRE TECNIMONT	RETELIT	ZUCCHI
ASTALDI	CIR	FULLSIX	MARCOLIN	RICHARD GINORI 1735	
ATLANTIA	CLASS EDITORI	GABETTI PROPERTY SOLUTIONS	MARIELLA BURANI	RISANAMENTO	
AUTOGRILL	COBRA	GAS PLUS	MARR	ROMA	
AUTOSTRADA TO-MI	COFIDE	GEFRAN	MEDIACONTECH	ROSSS	
AUTOSTRADE MERIDIONALI	COGEME SET	GEOX	MEDIASET	SABAF	
B&C SPEAKERS	CRESPI	GEWISS	MERIDIANA FLY	SADI SERVIZI INDUSTRIALI	
BASICNET	CSP INTERNATIONAL	GRANITIFIANDRE	MOLECULAR MEDICINE	SAES GETTERS	
BASTOGGI-IRBS	DADA	GREEN VISION AMBIENTE	MONDADORI EDITORI	SAFILO GROUP	
BEE TEAM	DANIELI & C.	GRUPPO CERAMICHE RICCHETTI	MONDO HE	SAIPEM	
BEGHELLI	DATALOGIC	GRUPPO COIN	MONDO TV	SARAS	
BENETTON GROUP	DE LONGHI	GRUPPO EDITORIALE L'ESPRESSO	MONRIF	SAVE	
BENI STABILI	DIASORIN	GRUPPO MINERALI MAFFEI	MONTEFIBRE	SCREEN SERVICE	
BEST UNION COMPANY	DIGITAL BROS	HERA	MONTI ASCENSORI	SEAT PAGINE GIALLE	
BIALETTI INDUSTRIE	DMAIL GROUP	I GRANDI VIAGGI	NICE	SERVIZI ITALIA	
BIANCAMANO	DMT	I VIAGGI DEL VENTAGLIO	NOEMALIFE	SETECO INTERNATIONAL	
BIESSE	EDISON	IGD	NOVA RE	SIAS	
BIOERA	EEMS	IL SOLE 24 ORE	OLIDATA	SNAI	
BOERO BARTOLOMEO	EL. EN.	IMA	PANARIA GROUP	SNAM RETE GAS	
BOLZONI	ELICA	IMMSI	PARMALAT	SOCOTHERM	
BONIFICHE FERRARESI	EMAK	IMPREGILO	PIAGGIO & C.	SOGEFI	
BORGOSESIA	ENEL	INDESIT COMPANY	PIERREL	SOL	
BREMBO	ENEL GREEN POWER	INDUSTRIA E INNOVAZIONE	PININFARINA	SORIN	

Table A.2. Yearly distribution of Outlooks

	Elements	*Firms*	*Outlooks per firm*
2006	49	21	2,333333333
2007	61	27	2,259259259
2008	60	32	1,875
2009	50	26	1,923076923
2010	54	26	2,076923077
	274	132	

Table A.3. Yearly distribution of Outlook Reliability

	Fit	*Worse*	*Better*
2006	11	20	18
2007	14	27	20
2008	7	31	22
2009	4	16	30
2010	9	23	22
	45	117	112

THE VALUE RELEVANCE OF FINANCIAL INFORMATION IN TROUBLED WATERS. THE EVIDENCE OF ITALIAN CONTEXT

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Abstract

Stemming from value relevance research, this study investigates the ability of accounting and financial data to provide useful information about the economic value of the firm in trouble waters. Because the firm is at the center of a network of interests of many stakeholders, that put some expectations on it, the investors requires useful financial statements information in order to take rational investment decisions about financial instruments, such as equity and corporate debts. Academic literature define value relevant the accounting information able to change the expectations but also to induce a change in the behavior of the decision makers. To ensure that the accounting information reported in the financial statements are value relevant they need to be related to the company current value. The aim of this research is to study the usefulness of accounting information perceived by investors and to understand the process of allocation of resources in the capital market in trouble waters.

Keywords: Financial Information, Accounting, Stakeholders, Capital Market

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1 Literature review

Value Relevance studies belong to the broader field called Capital-Market-Based Accounting (CMBAR), that start with the pioneering studies dating back to the 60s of Ball and Brown (1968) and Beaver (1968).

According to the clearly established academic literature, the value relevance analysis is purely focused on the link between accounting values and stock market prices. The value relevance studies are based on the assumption of capital market efficiency, that is the capacity of capital market to react to the new information on the company financial performance. In Beaver opinion (1968), the value relevance is the explication power of accounting data in accordance with the specifications in the stock price, while in Hellstrom one (2005), it is the peculiar ability of the financial statements to capture or summarize information about the value of equity securities. As a consequence, the degree of association between financial information and equity market value could be interpreted as an indicator of the relevance of financial statements information on the formation of the company's market value.

According to Ball and Brown (1968), the utility of net income must be assessed by examining the information content. Their analysis considers the net income as relevant information and suggests using its relationship with stock returns as a predictive criterion of its information's utility. A change in market value associated with a new communication of net income as index of financial information would provide evidence of its utility.

Beaver (1968) focused on information relevance of net income at the moment of announcement of the financial statements. The aim of the analysis was to measure empirically the perception of investors in informative value at announcement of financial results. Beaver found the empirical evidence about the increase obtained from both the trading volume and the volatility of earnings. Beaver concluded that net income was "relevant value": the announcement of the financial results affected the trend of both, the volume and the price of the ordinary shares in the week after publication.

However, recent empirical studies suggest deterioration in the ability of the profits to be value relevant, as pointed out by Collins, Maydew and Weiss (1997), and by Levers and Zarowin (1999). The literature debate was born in order to explain the loss of value relevance over time. Collins et al. (1997) identify numerous external factors that may have contributed to the change of the estimation power of value relevance. In particular, they refer to the companies increase in the technology and services field that resulted in an increase of its intangible assets, present in the firm and not accounted for in their financial statements; the lower persistence of earnings due to special components; the increase in the number of losses reported by companies which may result in a decreased ability of earnings to predict future returns (Hayn, 1995).

In summary, the literature does not agree on the value relevance of earnings, arriving to conflicting empirical results. The debate refers to the inability of net income to report a significantly stable relationship with market prices and return in the long run and to present similar significance of the correlations tested in different countries on the same variables. Despite net income determines an impacts on financial market at the moment of announcement, this information does not seem to generically useful to explain the company's value over time. This possibility can be considered only by recognizing a continuous misalignment between accounting data and market data, as a logical consequence of the presence of accounting policies inspired by conservatism, and even not neglecting any specific legal accounting characteristics of each country.

Stemming from this controversial debate, our analysis aims at verifying and assessing how and how much financial performance affects market performance of listed companies during the financial crisis through the empirical analysis of the Italian listed companies, with the reference to the industrial sector. In particular, we investigate if the financial crisis has revealed additional and alternative (other than those already found in the literature) financial factors that can explain the listed companies shares value in the case of Italian listed companies. We expected that the financial crisis has determined a change in the investment behavior of stakeholders, changing their time horizon of interest. In according of this expectation, we formulate the following hypothesis for the Italian listed companies:

H1: In the financial statements of industrial companies the value relevance of net income is higher than that of book value per share (Ohlson model)

H2: In the financial statements of industrial companies the value relevance of short time variables, as dividend yield is higher than that of long time variables, as leverage (our model)

Our model aims to reconstruct the evolution of the average market price on the basis of the identification of endogenous variables: the objective of the study is to verify whether these variables are able to assess the impact of corporate financial performance's trend on the share price's trend. In addition, the correlation analysis between the market price and the company's financial performance has been enhanced by the introduction of exogenous variables that can explain the financial crisis' impact on the changes in the share price and, as a consequence, on the financial performance of the companies. We compared the trend of the single company performance with the performance of their specific sectors, which by definition are affected by the recessive crisis.

2 Data sample and data collection

To build a consistent model, we considered the Italian companies listed on the Milan Stock Exchange, excluding banks and financial institutions, over the period between 2006 and 2011. The choice of the period 2006-2011 allow us to compare the value relevance of accounting data before and after the financial crisis and to evaluate the crisis effect on the relevance of accounting information to determine the share market price. We expect that the empirical research shows a change in the investment behavior of stakeholders and therefore in their decisions regarding the allocation of capital resource.

The sample of Italian listed companies has been calculated by excluding banks and financial institutions. The exclusion is justified by the fact that these companies are subject to a specific accounting discipline in their financial statements, with different shape, structure and content because of their peculiar activity. The population is made up of 174 companies classified as follows: 26 in the FTSE MIB, FTSE MID CAP in 45, 102 in the FTSE SMALL CAP. Under the new structure of the MTA, it is also considered the FTSE STAR segment, which includes 58 companies.

The financial information of Italian listed companies were obtained by creating a database in an excel spreadsheet, using sources such as the website of the Italian Stock Exchange, the Consob and the financial statements and management reports of each companies. Using our database we elaborate the financial information regarding income statement, balance sheet and cash flow statement and calculate a series of financial indices aimed at making a judgment on the financial performance of the companies.

3 Research Methods

In order to estimate the accounting information significance, the study uses a multiple regression model proposed by Ohlson (1995) and Lev and Zarowin (1999). Its reliability is evaluated by a coefficient of determination R2, that expresses numerically how much variance of the independent variable is explained by the dependent variables selected in the model. In other words, the value of R2

represents the measure of value relevance. The objective of the model is to define a relationship between the market value of equity and the accounting information:

$$MVE = f(AI) \quad (1)$$

The function analyzes the relationship between the available accounting information and the market value or, in other words, how much of the accounting information itself explains the change in market value over a specified period.

The first regression statistical analysis is structured according to the price model: the equation translates the evaluation model of Ohlson (1995):

$$P_{i(t+1)} = \beta_0 + \beta_1 BVS_{it} + \beta_2 EPS_{it} + \varepsilon_{it} \quad (2)$$

The estimation of the parameters of the ARIMA model and of the regression coefficients was conducted by the method of maximum likelihood, that compared to the OLS (Ordinary Least Square) model is more suitable to highlight significant serial correlations even if measured in very distant periods. Once the model was built and the estimation of the independent variables coefficients and the standard error was calculated, it was decided to verify the goodness of the fit of the model to the data through the standard error and the coefficient of determination. In order to neutralize the effect due to the different number of explanatory variables, it is use the coefficient of multiple determinations correctly:

$$R_c^2 = 1 - \frac{SSE/(n-k-1)}{SST/(n-1)} \quad (3)$$

where SSE = Sum of Square Errors, SST = Sum of Square Total.

To verify the significance, we use a statistical test. Based on the observed sample, the statistical test aims to verify whether or not to accept the null hypothesis: if the information obtained from the sample is in stark contrast with the null hypothesis is rejected. The level of significance for which accept or reject the null hypothesis is a = 0.10. In order to remove arbitrariness of the choice of a, we resorted to p-value, which allowed a greater awareness of the degree of evidence obtained by the rejection of the null hypothesis. By linear regression, first we determine the significance of the entire model and then that of the individual variables. The two variables suitable for the purpose are, respectively, the F-test and t-test. In order to control the level of correlation between the explanatory variables (multi-collinearity), we resorted to the VIF (Variance Inflaction Factor):

$$VIF_j = \frac{1}{1 - R_j^2} \quad (4)$$

To build a second multiple linear regression model, we used EPS (Earning per Share) for the variables income, ROA (Return on Assets) and DY (Dividend yield) for ones return, the Leverage for ones assets and NCFinv (Net Cash Flow per investment) for ones flow. The multiple regression model is represented as follows:

$$P_{i(t+1)} = \beta_0 + \beta_1 EPS_{it} + \beta_2 ROA_{it} + \beta_3 DY_{it} + \beta_4 LEVERAGE_{It} + \beta_5 NCFinv_{it} + \varepsilon_{it} \quad (5)$$

4 Results

As regard to the first regression model, we verified all the hypotheses of significance, arbitrariness and multi-collinearity. The estimated coefficients for the regression model in 2006 show that the market value is affect more by earnings per share then book value per share. From 2007, regression coefficient's values are lower than the previous year and the trend continued in 2008, when the reduction was more significant in absolute terms, however. In 2009 there is a further drop in the share price and a further decrease in profits. Coefficients analysis shows a dependence of the price compared to book value substantially more stable compared to 2008, while we note a significant increase in the influence of EPS.

Relative to the second regression model, the regression coefficients show that in 2006 the significance of EPS (in accordance with the previous model), ROA and NCFinv. ROA, however, reaches a larger absolute value. In 2008 2007e significant result the EPS and DY, which has a negative coefficient. In 2009 there were still significant as EPS and DY, which has on the contrary a positive value.

6. Discussion and conclusion

As regard to the first regression model, we can observe that the investment decisions until the explosion of the 2008 financial crisis were more influenced by net income rather than the balance sheet solidity. The price collapse caused by the financial crisis has also led to a reduction in the coefficient of determination and a greater focus by investors on companies with the best ability to overcome the situation.

In 2006 it is interesting to note that the cash flows for investment exhibit an inverse relationship with the price: increased investment spending corresponds to a higher stock price, while divestments have a negative influence on the market price. By results obtained, we disclose a predominant orientation to long-term investors for 2006. This interpretation seems to be confirmed in 2007 and 2008, in which investors are oriented reward companies that keep their internal resources produced.

In 2009, investors do not look for future capacity to generate income but they are instead interested in immediate results. From the empirical analysis appears clear an interesting change in the time horizon of the investment from the medium – long term to the short term.

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A FINANCIAL RISK AND FRAUD MODEL COMPARISON OF BEAR STEARNS AND LEHMAN BROTHERS: WAS THE RIGHT OR WRONG FIRM BAILED OUT?

Hugh Grove*, Maclyn Clouse**

Abstract

In March 2008, the US government bailed out a failing Bear Stearns by arranging a sale to JP Morgan Chase, with US government guarantees for many Bear Stearns' toxic assets that came with the acquisition. In September 2008, the US government failed to bail out a failing Lehman Brothers, which then went into bankruptcy. Soon thereafter, the US government established a bailout program for many other failing financial institutions. This paper uses financial risk and fraud models to attempt to answer the question as to why Bear Stearns was bailed out, but Lehman Brothers was not. Based on the analysis, was the right or wrong firm bailed out? In summary, these financial risk and fraud models show potential for developing effective risk management monitoring and stronger corporate governance in order to enhance relationships between management, financial reporting, and the stability of the economic system in crisis and post-crisis conditions.

Keywords: Financial Risk, Fraud Models, Risk Management Monitoring

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1 Introduction

At the beginning of 2008, there were 5 bulge bracket US investment banks – Bear Stearns, Lehman Brothers, Merrill Lynch, Goldman Sachs, and Morgan Stanley. In March 2008, Bear Stearns was in financial distress and was acquired by JP Morgan Chase in a deal with substantial US government support. In September 2008, Lehman Brothers and Merrill Lynch were in financial distress. There was no US government support for Lehman brothers, and it went into bankruptcy. Merrill Lynch was acquired by Bank of America. Shortly thereafter, Goldman Sachs and Morgan Stanley both became bank holding companies. Thus, by the end of 2008, all 5 bulge bracket investment banks were either gone, or no longer investment banks.

The financial institution problems in 2008 resulted in the US government's decision to spend almost $800 billion dollars for the Troubled Asset Relief Program (TARP), the bailout program for financial institutions that were judged to be "too big to fail". This bailout was controversial, and many questioned both the cause of this financial crisis and the need for bailouts.

The Financial Crisis Inquiry Commission (Commission) was a ten-member commission appointed by the U.S. government with the goal of investigating the causes of the financial crisis of 2007-2010. At the end of January, 2011, the Commission finished its report and concluded: *"the greatest tragedy would be to accept the refrain that no one could have seen this coming and thus find nothing could have been done. If we accept this notion, it will happen again."* The Commission also concluded that the financial crisis was an "avoidable" disaster caused by widespread failures in government regulation, corporate mismanagement and heedless risk-taking by Wall Street. It found that the Securities and Exchange Commission (SEC) had failed to require big banks to hold more capital to cushion potential losses and to halt risky practices and that the Federal Reserve Bank *"neglected its mission by failing to stem the tide of toxic mortgages"* (Chan 2011).

Citing dramatic breakdowns in taking on too much risk, the Commission portrayed incompetence with the following examples. A Citigroup executive conceded that they paid little attention to mortgage-related risks. Executives at American International Group were blind to its $79 billion exposure to credit-default swaps. Merrill Lynch managers were surprised when seemingly secure mortgage investments suddenly suffered huge losses. The banks hid their excessive leverage with derivatives, off-balance-sheet entities and other accounting tricks. Their speculations were aided by a giant "shadow

banking system" in which banks relied heavily on short-term debt. The Commission concluded: *"when the housing and mortgage markets cratered, the lack of transparency, the extraordinary debt loads, the short-term loans and the risky assets all came home to roost"* (Chan 2011).

The Commission had also cited another avoidable failure, the inconsistent treatment by the federal government in helping to bail out Bear Stearns in March, 2008 but letting Lehman Brothers go into bankruptcy in September, 2008. By using financial risk and fraud models, Bear Stearns and Lehman brothers can be compared during their March-September 2008 financial crisis periods. This comparison can help to provide the answer to the following question: was the wrong firm bailed out?

2 Financial Statements

By coincidence, the last annual financial statements for Bear Stearns and Lehman Brothers were both November 30, 2007, due to Bear Stearns' acquisition by JP Morgan Chase in March, 2008 and Lehman Brothers' bankruptcy in September, 2008. These financial statements are shown for Bear Stearns in Tables 1-3 and for Lehman Brothers in Tables 4-6 with both firms' stock prices for each fiscal year-end shown in Tables 2 and 5.

Table 1. Bear Stearns Companies Inc Balance Sheets, November 30, 2007 and 2006 (in millions)

	2007	2006
ASSETS		
Cash and cash equivalents	$21,406	$4,595
Cash and securities deposits	12,890	8,804
Collateralized agreements:		
Securities purchased to resell	43,477	58,486
Securities borrowed	82,245	80,523
Receivables:		
Customers	41,115	29,482
Brokers, dealers, and others	12,407	6,864
Financial instruments at fair value	138,242	125,168
Mortgage loan special purpose entities	33,553	30,245
Property, equipemnt and leasehold improvements, net of accum. depreciation	605	480
Other assets	9,422	5,786
Total Assets	$395,362	$350,433
LIABILITIES & STOCKHOLDERS' EQUITY		
Short-term borrowings	$27,242	$45,435
Financial instruments sold but not yet purchased at fair value	43,807	42,257
Collateralized financings:		
Securities sold under agreements to repurchase	102,373	69,750
Securities loaned	3,935	11,451
Other secured borrowings	12,361	3,275
Payables:		
Customers	83,204	72,989
Brokers,dealers and others	5,402	4,520
Accrued liabilities	6,102	4,977
Mortgage loan special purpose entities	30,605	29,080
Long-term borrowings	68,538	54,570
Total Liabilities	$383,569	$338,304
Stockholders' Equity		
Preferred stock	352	359
Common stock	185	185
Additional paid-in capital	4,986	4,579
Acc. Other comprehensive (loss) income	2,470	2,066
Retained earnings	9,441	9,385
Treasury stock	-5,641	-4,445
Total Stockhgolders' Equity	11,793	12,129
Total Liabilities and Stockholders' Equity	$395,362	$350,433

Table 2. Bear Stearns Companies Inc Income Statement, November 30, 2007, 2006 and 2005 (in millions)

	2007	2006	2005
REVENUES			
Commissions	$1,269	$1,163	$1,200
Principal transactions	1,323	4,995	3,836
Investment banking	1,380	1,334	1,037
Interest and dividends	11,556	8,536	5,107
Asset management	623	523	372
Total revenues	$16,151	$16,551	$11,552
Interest expense	10,206	7,324	4,141
Revenues, net of interest expense	$5,945	$9,227	$7,411
NON-INTEREST EXPENSES			
Employee compensation and benefits	3,425	4,343	3,553
Brokerage, exchange and clearance fees	279	227	222
Communications and technology	578	479	402
Occupancy	264	198	168
Business development	179	147	127
Professional fees	362	280	229
Other expenses	665	406	503
Total non-interest expenses	5,752	6,080	5,204
Income before taxes	$193	$3,147	$2,207
Provision for income taxes	-40	1,093	745
Net income	$233	$2,054	$1,462
Preferred stock dividends	21	21	24
Net income applicable to common stock	$212	$2,033	$1,438
Basic earnings per share	$1.68	$15.79	$11.42
Diluted earnings per share	$1.52	$14.27	$10.31
Weighted average common shares outstanding:			
Basic	130	132	130
Diluted	146	149	147
Fiscal year-end stock price	$10	$170	$150

Table 3. Bear Stearns Companies Inc Statement of Cash Flows, November 30, 2007, 2006 and 2005 (in millions)

	2007	2006	2005
Cash Flows From Operating Activities			
Net income	$233	$2,054	$1,462
Adjustments to reconcile net incoome to			
cash provided by operating activities:			
Depreciation and amortization	14	10	10
Non-cash compensation	31	1,010	801
Equity in earnings of subsidiaries	-1,292	-493	-876
Decreases (increases) in assets:			
Securities purchased under resale agreements	-1,312	77	99
Financial instruments	-2.397	1,007	-34
Increases (decreases) in liabilities:			
Payables to customers	388	1,566	1.276
Accrued liabilities	2,071	-50	306
Cash provided by operating activities	($2,264)	$5,181	$3,044
Cash Flows From Investing Activities			
Receivables from subsidiaries	16,215	-23,468	-12,782
Investments in subsidiaries	1,170	-228	-321
Cash provided by (used) in investing activities	17,385	-23,696	-13,103
Cash Flows From Financing Activities			
Short-term borrowings	-10,622	9,898	4,524
Long-term borrowings	21,193	16,503	14,112
Deposit liabilities	254	363	426
Issuance of common stock	155	276	126
Retirement of long-term borrowings	-8,865	-7,143	-5,966
Purchase of treasury stock	-1,670	-1,374	-870
Cash dividends paid	-172	-155	-139
Cash provided by financing activities	273	18,368	12,213
Net change in cash and cash equivalents	$15,394	($147)	$2,154
Cash and equivalents at beginning of year	2,007	2,154	0
Cash and equivalents at end of year	$17,401	$2,007	$2,154

Table 4. Lehman Brothers Holdings Inc Balance Sheet, November 30, 2007 and 2006 (in millions)

	2007	2006
ASSETS		
Cash and cash equivalents	$7,286	$5,987
Cash and securities deposits	12,743	6,091
Collateralized agreements:		
Securities purchased to resell	162,635	117,490
Securities borrowed	138,599	107,666
Receivables:		
Customers	29,622	18,470
Brokers, dealers, and others	11,005	7,449
Financial instruments at fair value	313,129	226,596
Other assets	8,056	7,165
Property, equipemnt and leasehold improvements, net of accum. depreciation	3,861	3,269
Goodwill net of amortization	4,127	3,362
Total Assets	$691,063	$503,545
LIABILITIES & STOCKHOLDERS' EQUITY		
Short-term borrowings	$28,066	$20,638
Financial instruments sold but not yet purchased at fair value	149,617	125,960
Collateralized financings:		
Securities sold under agreements to repurchase	181,732	133,547
Securities loaned	53,307	23,982
Other secured borrowings	22,992	19,028
Payables:		
Customers	61,206	41,695
Brokers,dealers and others	3,101	2,217
Accrued liabilities	16,039	14,697
Deposit liabilities at banks	29,363	21,412
Long-term borrowings	123,150	81,178
Total Liabilities	$668,573	$484,354
Stockholders' Equity		
Preferred stock	1095	1095
Common stock	61	61
Additional paid-in capital	9,733	8,727
Acc. Other comprehensive (loss) income	-2,573	-1,727
Retained earnings	19,698	15,857
Treasury stock	-5,524	-4,822
Total Stockhgolders' Equity	22,490	19,191
Total Liabilities and Stockholders' Equity	$691,063	$503,545

Table 5. Lehman Brothers Holdings Inc Income Statement, November 30, 2007, 2006 and 2005 (in millions)

	2007	2006	2005
REVENUES			
Commissions	$2,471	$2,050	$1,728
Principal transactions	9,197	9,802	7,811
Investment banking	3,903	3,160	2,894
Interest and dividends	41,693	30,284	19,043
Asset management	1,739	1,413	944
Total revenues	$59,003	$46,709	$32,420
Interest expense	39,746	29,126	17,790
Revenues, net of interest expense	$19,257	$17,583	$14,630
NON-INTEREST EXPENSES			
Employee compensation and benefits	9,494	8,669	7,213
Brokerage, exchange and clearance fees	859	629	548
Communications and technology	1,145	974	834
Occupancy	641	539	490
Business development	378	301	234
Professional fees	466	364	282
Other expenses	261	202	200
Total non-interest expenses	13,244	11,678	9,801
Income before taxes	$6,013	$5,905	$4,829
Provision for income taxes	1,821	1,898	1,569
Net income	$4,192	$4,007	$3,260
Preferred stock dividends	67	66	69
Net income applicable to common stock	$4,125	$3,941	$3,191
Basic earnings per share	$7.63	$7.26	$5.74
Diluted earnings per share	$7.26	$6.81	$5.43
Weighted average common shares outstanding:			
Basic	541	543	556
Diluted	568	578	587
Fiscal year-end stock price	$60	$70	$45

Table 6. Lehman Brothers Holdings Inc Statement of Cash Flows, November 30, 2007, 2006 and 2005 (in millions)

	2007	2006	2005
Cash Flows From Operating Activities			
Net income	$4,192	$4,007	$3,260
Adjustments to reconcile net incoome to cash provided by operating activities:			
Depreciation and amortization	577	514	426
Non-cash compensation	1,791	1,659	51
Deferred tax provision (benefit)	304	-104	-329
Decreases (increases) in assets:			
Securities purchased under resale agreements	3	6,111	-475
Financial instruments	-55,488	-30,878	-22,496
Securities deposits	-4,296	-22,818	4,671
Receivables from brokers, dealers,and others	-3,556	5	-4,054
Increases (decreases) in liabilities:			
Payables to customers	17,395	9,899	4,834
Accrued liabilities	-1,401	765	-456
Cash provided by operating activities	($45,595)	($36,376)	($12,205)
Cash Flows From Investing Activities			
Purchase of property and equipment	-966	-586	-409
Investments in subsidiaries	-732	-206	-38
Cash provided by (used) in investing activities	-1,698	-792	-447
Cash Flows From Financing Activities			
Short-term borrowings	4,057	5,814	224
Long-term borrowings	86,302	48,115	23,705
Deposit liabilities	7,068	6,345	4,717
Issuance of common stock	84	119	230
Retirement of long-term borrowings	-46,255	-19,636	-14,233
Purchase of treasury stock	-2,246	-2,160	-2,229
Cash dividends paid	-418	-342	-302
Cash provided by financing activities	48,592	38,255	12,112
Net change in cash and cash equivalents	$1,299	$1,087	($540)
Cash and equivalents at beginning of year	5,987	4,900	5,440
Cash and equivalents at end of year	$7,286	$5,987	$4,900

To help assess the risk management of both firms, their condensed balance sheets were compiled in Tables 7 and 8 for 2003 and 2007. A major problem was the traditional lack of classified balance sheets for banks. No current and long-term categories of assets and liabilities are typically provided by banks. For guidance, the following comments from Lehman Brothers' Atlanta office manager, who retired early at age 55, may be considered. In an interview, he said that over the years, the firm's culture had shifted from managing money for clients to proprietary trading for itself. A permissive management style increasingly favored short-term investment gains and unrealized profits through mark-to-market accounting over the sustainability of the company. He said: *"the firm traded at the expense of the customers in some cases and on the trading desk, there was almost disdain for the customer"* (Lewis 2011). This strategy was reinforced by Lehman Brothers' change in its balance sheet terminology for its investments from "Securities" in 2003 (as a brokerage firm for its customers) to "Financial Instruments" in 2007 (as a trading firm for its own shareholders and management). Thus, such investments were classified as short-term assets in 2003 and as long-term assets in 2007 for both firms to summarize this strategic shift in investment banking over this period.

3 Financial Risk Ratios and Fraud Models

To help assess financial risk, the following financial risk ratios and fraud models have been successfully applied as investment strategies in an empirical market study: quality of earnings, quality of revenues, the Sloan accrual measure, the Beneish fraud model, the Dechow fraud model, and the Altman bankruptcy model (Grove et.al. 2010). These ratios and models are described in Appendix A.

Similarly, traditional ratios have been used to assess financial risk and use the Yahoo.finance categories of ratios (Grove and Basilico 2011) as follows:

- **Valuation ratios:** price/book, price/earnings, price/sales, and price/operating cash flow
- **Profitability:** profit margin, top-line growth, and bottom-line growth
- **Management Effectiveness:** return on assets and return on equity
- **Financial Strength:** current ratio and debt/equity

Benchmark comparisons of all these ratios and models for Bear Stearns and Lehman Brothers were compiled with four major banks (Citigroup, Wells Fargo, JP Morgan Chase, and GE which would be the third largest bank if its capital services division were spun off) and five fraudulent financial reporting companies (Enron, WorldCom, Qwest, Global Crossing, and Tyco). Table 7 shows the statements and calculations for Bear Stearns; Table 8 does the same for Lehman Brothers. Table 9 provides the comparisons for all the institutions examined.

Table 7. Statements and calculations for Bear Stearns

Risk Management Ratios and Models	2007	2006	2005
Income Statement			
Total Revenues	16 151	16 551	11 552
	-2%	43%	
Cost of sales (Interest expense)	10 206	7 324	4 141
Gross Profit (Net revenues)	$5 945	$9 227	$7 411
Operating Expenses	$5 752	$6 080	$5 204
EBITDA (without adding back interest expense)	207	3 157	2 217
Depreciation & Amortization	14	10	10
Change: Depreciation & Amortiz.	4	0	
Operating Income	193	3 147	2 207
Net Income Before Taxes	193	3 147	2 207
Income Tax Expense	-40	1 093	745
Taxes Paid See Notes	-40	1 093	745
Change: Current Taxes Payable	-1 133	348	
Net Income Core Earnings	233	2 054	1 462
Net Income GAAP	233	2 054	1 462
Preferred stock dividends	21	21	24
Earnings available to common	212	2 033	1 438
Balance Sheet			
Cash	34 296	13 399	11 129
Change: Cash	20897	2270	
AR net	53 522	36 346	37 233
Inventory			
Current Assets	87 818	49 745	48 362
Change: Current Assets	38 073	1 383	
Net Fixed Assets	605	480	451
Total Assets	395 362	350 433	292 635
Current Liabilities	315 031	283 734	238 354
Change: Current liabilities	31 297	45 380	
Deferred Income Taxes	0	0	0
Change: Working Capital	6 776	-43 997	
Short Term Debt	11 643	25 787	20 016
Long Term Debt	68 538	54 570	43 490
Total Stockholder's Equity	11 793	12 129	10 791
Additional Data			
Common Stock Share Price	$10,00	$170,00	$150,00
Common Shares Outstanding	130	132	130
Diluted Common Shares outstanding	146	149	147
Diluted Earnings Per Share	$1,52	$14,27	$10,31
Sales Per Basic Common Share	$ 124,24	$ 125,39	$ 88,86
Operating Cash Flow	-2 264	5 181	3 044
Operating CF per Basic Common Share	$ (17,42)	$ 39,25	$ 23,42

Table 7. Statements and calculations for Bear Stearns (continued)

Current Year	**T**	**T-1**	**T-2**
CA	**$ 87 818**	**$ 49 745**	
Cash	**$ 34 296**	**$ 13 399**	
STI	**$ -**	**$ -**	
CL	**$ 315 031**	**$ 283 734**	
LTI	**$ -**	**$ -**	
TA	**$ 395 362**	**$ 350 433**	**$ 292 635**
TL	**$ 383 569**	**$ 338 304**	
LTD	**$ 68 538**	**$ 54 570**	
STD	**$ 11 643**	**$ 25 787**	
Pref. Stock			
AR	**$ 53 522**	**$ 36 346**	**$ 37 233**
Inv.	**$ -**	**$ -**	
Sales	**$16 151**	**$16 551**	**$11 552**
Earnings	**$ 233**	**$ 2 054**	
Tax provision	**$ (40)**	**$ 1 093**	
# shares out	**130**	**$ 132**	
Price of Stock	**$10,00**		
Cost of Sales	**$ 10 206**	**$ 7 324**	
Dep + Amort	**$ 14**		
OCF	**$ (2 264)**		
CAPEX	**$ 40**		
Net Fixed Assets	**$ 605**	**480**	

Dechow Fraud F-Score

Δ WC	$ (14 121)		
Δ NCO	$ 6 856		
Δ FIN	$ (28 112)		
Avg. TA	$ 372 898	$ 321 534	
Accrual	-0,09487		
Δ AR	0,0461		
Δ Inv.	0,0000		
% Δ Cash Sales	-1,0588	-1025	17438
Δ Earnings	-0,0058		
Actual Issuance	1		
Predicted Value	-5,8495077	0,903492303	
Probability	0,00287304		
Constant	0,00343184		
F-Score	**0,837171**	Red >1.0 Fraud Warning	
		Green < 1.0 No Fraud Warning	

Altman Z-score

Market Cap	$ 1 300		
WC	$ (227 213)	$ (233 989)	
EBIT	$ 193		
	Variables	multiples	
X1 (WC/TA)	-0,5747	6,56	(3,7700)
X2 (RE/TA)	0,0093	3,26	0,0304
X3 (EBIT/TA)	0,0005	6,72	0,0033
X4 (mkt cap/TSE)	0,1102	1,05	0,1157
Altman Z-score	**(3,6206)**	Green >2.6 bankruptcy unlikely	
		Yellow 1.1 to 2.6 uncertain	
		Red <1.1 bankruptcy likely	

Table 7. Statements and calculations for Bear Stearns (continued)

Beneish Fraud Z-score					
		Variable	**NMMI good**	**MMI bad**	
Days' Sales in Receivables		**1,509**	1,031	1,465	
Gross Margin Index		**1,515**	1,014	1,193	green = good
Asset Quality Index		**0,906**	1,039	1,254	yellow = uncertain
Sales Growth Index		**0,976**	1,134	1,607	red = bad
Change in WC	$	6 776			
Change in Cash	$	20 897			
Current Taxes Payable	$	(1 133)			
Total Accruals to Total Assets Index		**(0,033)**	0,018	0,031	
Z-score		**(1,57)**	Red > -1.99 Fraud Warning Green < -1.99 No Fraud Warning		
Sloan Accrual Measure					
Free Cash Flow	$	(2 304)	Red > 0.10 Bad		
Sloan Accrual Measure		**0,0068**	Green < 0.10 Good		
Quality of Earnings					
Quality of Earnings		**-9,7167**	Red < 1.0 Bad Green > 1.0 Good		
Quality of Revenue					
Cash Collected	$	(1 025)	Red < 1.0 Bad		
Quality of Revenue		**(0,0635)**	Green > 1.0 Good		
Traditional Ratio Analysis					
		Company Ratio		**Benchmark**	
Valuation Ratios					
Price/Book		0,11	4,1	**Less than Benchmark**	
Book Value	91				
Price/Earnings		6,58	35,7	**Less than Benchmark**	
Diluted EPS	1,52				
Price/Sales		0,08	1,9	**Less than Benchmark**	
Price/Cash Flow		-0,57	15,1	**Less than Benchmark**	
Income Statement Profitability					
Profit Margin		1%	4% to 8%	**Outside Benchmark Range**	
Top-Line Growth		-2%	5% to 15%	**Outside Benchmark Range**	
Bottom-Line Growth		-89%	5% to 15%	**Outside Benchmark Range**	
Management Effectiveness					
Return on Assets		0%	8% to 12%	**Outside Benchmark Range**	
Return on Equity		2%	9% to 13%	**Outside Benchmark Range**	
Financial Strength					
Current Ratio		0,28	1 to 2	**Outside Benchmark Range**	
Debt/Equity		6,80	.5 to 1	**Outside Benchmark Range**	

Table 8. Statements and calculations for Lehman Brothers

Risk Management Ratios and Models	2007	2006	2005
Income Statement			
Total Revenues	59 003	46 709	32 420
	26%	44%	
Cost of sales (Interest expense)	39 746	29 126	17 790
Gross Profit (Net revenues)	$19 257	$17 583	$14 630
Operating Expenses	$13 244	$11 678	$9 801
EBITDA (without adding back interest expense)	6 590	6 419	6 310
Depreciation & Amortization	577	514	1481
Change: Depreciation & Amortiz.	63	-967	
Operating Income	6 013	5 905	4 829
Net Income Before Taxes	6 013	5 905	4 829
Income Tax Expense	1 821	1 945	1 569
Taxes Paid See Notes	1 821	1 945	1569
Change: Current Taxes Payable	-124	376	
Net Income Core Earnings	4 192	4 007	3 260
Net Income GAAP	4 192	4 007	3 260
Preferred stock dividends	67	66	69
Earnings available to common	4 125	3 941	3 191
Balance Sheet			
Cash	20 029	12 078	10 644
Change: Cash	7951	1434	
AR net	43 277	27 971	21 643
Inventory			
Current Assets	63 306	40 049	32 287
Change: Current Assets	23 257	7 762	
Net Fixed Assets	3 861	3 269	2 885
Total Assets	691 063	503 545	410 063
Current Liabilities	545 423	404 271	484 370
Change: Current liabilities	141 152	-80 099	
Deferred Income Taxes	0	0	0
Change: Working Capital	-117 895	87 861	
Short Term Debt	359 415	280 145	119 096
Long Term Debt	123 150	81 178	57 473
Total Stockholder's Equity	22 490	18 096	16 794
Additional Data			
Common Stock Share Price	$60,00	$70,00	$45,00
Common Shares Outstanding	541	543	556
Diluted Common Shares outstanding	568	578	587
Diluted Earnings Per Share	$7,26	$6,81	$5,43
Sales Per Basic Common Share	109,06p.	86,02p.	58,31p.
Operating Cash Flow	45 595	36 376	7 488
Operating CF per Basic Common Share	84,28p.	66,99p.	13,47p.

Table 8. Statements and calculations for Lehman Brothers (continued)

Current Year	**T**	**T-1**	**T-2**
CA	**$ 63 306**	**$ 40 049**	
Cash	**$ 20 029**	**$ 12 078**	
STI	**$ -**	**$ -**	
CL	**$ 545 423**	**$ 404 271**	
LTI	**$ -**	**$ -**	
TA	**$ 691 063**	**$ 503 545**	**$ 410 063**
TL	**$ 668 573**	**$ 485 449**	
LTD	**$ 123 150**	**$ 81 178**	
STD	**$ 359 415**	**$ 280 145**	
Pref. Stock			
AR	**$ 43 277**	**$ 27 971**	**$ 21 643**
Inv.	**$ -**	**$ -**	
Sales	**$59 003**	**$46 709**	**$32 420**
Earnings	**$ 4 192**	**$ 4 007**	
Tax provision	**$ 1 821**	**$ 1 945**	
# shares out	**541**	**$ 543**	
Price of Stock	**$60,00**		
Cost of Sales	**$ 39 746**	**$ 29 126**	
Dep + Amort	**$ 577**		
OCF	**$ 45 595**		
CAPEX	**$ 630**		
Net Fixed Assets	**$ 3 861**	**3 269**	

Dechow Fraud F-Score			
Δ WC	$ (125 846)		
Δ NCO	$ 164 261		
Δ FIN	$ 37 298		
Avg. TA	$ 597 304	$ 456 804	
Accrual	0,12676		
Δ AR	0,0256		
Δ Inv.	0,0000		
% Δ Cash Sales	0,0821	43697	40381
Δ Earnings	-0,0018		
Actual Issuance	1		
Predicted Value	-5,624376494	1,128623506	
Probability	0,003595836		
Constant	0,003431842		
F-Score	**1,047785806**	Red >1.0 Fraud Warning Green < 1.0 No Fraud Warning	

Altman Z-score			
Market Cap	$ 32 460		
WC	$ (482 117)	$ (364 222)	
EBIT	$ 6 013		
	Variables	multiples	
X1 (WC/TA)	-0,6976	6,56	(4,5766)
X2 (RE/TA)	0,0163	3,26	0,0531
X3 (EBIT/TA)	0,0087	6,72	0,0585
X4 (mkt cap/TSE)	1,4433	1,05	1,5155
Altman Z-score	**(2,9495)**	Green >2.6 bankruptcy unlikely Yellow 1.1 to 2.6 uncertain Red <1.1 bankruptcy likely	

Table 8. Statements and calculations for Lehman Brothers (continued)

Beneish Fraud Z-score				
	Variable	**NMMI good**	**MMI bad**	
Days' Sales in Receivables	**1,225**	1,031	1,465	
Gross Margin Index	**1,153**	1,014	1,193	green = good
Asset Quality Index	**0,988**	1,039	1,254	yellow = uncertain
Sales Growth Index	**1,263**	1,134	1,607	red = bad
Change in WC	$ (117 895)			
Change in Cash	$ 7 951			
Current Taxes Payable	$ (124)			
Total Accruals to Total Assets Index	**(0,183)**	0,018	0,031	
Z-score	**(2,43)**	Red > -1.99 Fraud Warning		
		Green < -1.99 No Fraud Warning		
Sloan Accrual Measure				
Free Cash Flow	$ 44 965	Red > 0.10 Bad		
Sloan Accrual Measure	**-0,0683**	Green < 0.10 Good		
Quality of Earnings				
Quality of Earnings	**10,8767**	Red < 1.0 Bad		
		Green > 1.0 Good		
Quality of Revenue				
Cash Collected	$ 43 697	Red < 1.0 Bad		
Quality of Revenue	**0,7406**	Green > 1.0 Good		
Traditional Ratio Analysis				
	Company Ratio		**Benchmark**	
Valuation Ratios				
Price/Book	1,44	4,1	**Less than Benchmark**	
Book Value	42			
Price/Earnings	8,26	35,7	**Less than Benchmark**	
Diluted EPS	7,26			
Price/Sales	0,55	1,9	**Less than Benchmark**	
Price/Cash Flow	0,71	15,1	**Less than Benchmark**	
Income Statement Profitability				
Profit Margin	7%	4% to 8%	**Within Benchmark Range**	
Top-Line Growth	26%	5% to 15%	**Outside Benchmark Range**	
Bottom-Line Growth	5%	5% to 15%	**Outside Benchmark Range**	
Management Effectiveness				
Return on Assets	1%	8% to 12%	**Outside Benchmark Range**	
Return on Equity	19%	9% to 13%	**Outside Benchmark Range**	
Financial Strength				
Current Ratio	0,12	1 to 2	**Outside Benchmark Range**	
Debt/Equity	21,46	.5 to 1	**Outside Benchmark Range**	

Table 9. Financial Risk and Fraud Red Flags

Ratio Summary	Bear Stearns	Lehman Brothers	Citigroup	Wells Fargo	JP Morgan	GE	Enron	World Com	Qwest	Global Crossing	Tyco	Bear S+Leh B	Red Flag Totals: 4 Other Banks	5 Fraud Cos.
Newer Models														
Dechow Fraud F Score	N (No)	Y	N	N	N	N	Y	N	N	Y	Y	1	0	3
Altman Z Score	Y (YES)	Y	Y	Y	Y	Y	P (Poss)	Y	Y	Y	P	2	4	5
Beneish Fraud Z Score	Y	N	Y	N	N	N	Y	N	N	Y	N	1	1	2
DSRI	Y	P	N	N	N	P	P	Y	N	N	P	2	1	3
GMI	Y	P	P	P	N	N	Y	P	P	Y	N	2	2	4
AQI	N	N	N	N	P	N	N	N	N	N	Y	0	1	1
SGI	N	P	P	N	P	N	Y	N	P	Y	P	1	2	4
TATA	N	N	N	N	N	N	N	P	N	N	N	0	0	1
Sloan Accrual	N	N	N	N	N	N	N	N	Y	Y	N	0	0	2
Quality of Earnings	Y	N	Y	N	Y	N	N	N	Y	Y	N	1	2	2
Quality of Revenue	Y	Y	Y	N	N	N	Y	N	Y	Y	Y	2	1	4
Traditional Ratios														
Valuation Ratios														
Price to Book	N	N	N	N	N	Y	Y	N	N	N	Y	0	1	2
Price to Earnings	N	N	Y	N	N	N	Y	N	Y	Y	Y	0	1	4
Price to Sales	N	N	Y	Y	Y	Y	N	N	N	N	Y	0	4	1
Price to OCF	Y	N	N	N	N	N	N	N	N	N	Y	1	0	1
Profitability														
Profit Margin	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	1	4	5
Top-Line Growth	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	2	2	5
Bottom-Line Growth	Y	Y	Y	N	N	Y	N	Y	Y	Y	Y	2	2	4
Management Effectiveness														
Return on Assets	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	2	1	5
Return on Equity	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	2	3	4
Financial Strength														
Current Ratio	Y	Y	Y	N	N	Y	N	Y	Y	Y	Y	2	2	4
Debt to Equity	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	2	4	1
Totals: Red Flags	14	12	16	6	8	9	14	9	13	16	16	26	38	69
%	64%	55%	73%	27%	36%	41%	64%	41%	59%	73%	73%	59%	43%	63%

4 Analysis of the Comparisons

The financial risk ratios and fraud models are discussed in the order they appear in Tables 7 and 8 for Bear Stearns and Lehman Brothers, respectively. The Dechow fraud or risk management model signals a red flag for Lehman Brothers, but not for Bear Stearns. The Altman bankruptcy model predicts bankruptcy for both firms. The Beneish fraud or risk management model signals a red flag for Bear Stearns, but not for Lehman Brothers. Several of the ratio index inputs to the Beneish model also show red flag signals for both firms. The Sloan accrual measure is not a red flag for both firms. The quality of earnings is a red flag for Bear Stearns, but not Lehman Brothers. The quality of revenues is a red flag for both firms. Concerning the traditional ratios, the valuation ratios only show one out of eight possible red flags for both firms together. However, all the other traditional ratios in profitability, management effectiveness and financial strength show red flags for both firms.

Concerning benchmark comparisons in Table 9, Bear Stearns and Lehman Brothers show aggregate red flags from all these ratios and models 64% of the time and 55% of the time, respectively. The four big banks, Citigroup, Wells Fargo, JP Morgan Chase, and GE show red flags 73%, 27%, 36%, and 41% of the time, respectively or an average of 44%. The five financial reporting fraud firms, Enron, WorldCom, Qwest, Global Crossing, and Tyco show red flags 64%, 41%, 59%, 73%, and 73% of the time or an average of 62% of the time. In summary, Bear Stearns and Lehman Brothers are quite similar in red flags, 64% and 55% or an average of 59% of the time which is between the big banks' average of 44% and the fraud firms' average of 62% as shown in Table 9 although they are closer to the fraud firms' risk management profiles. From the percentage of red flags, Lehman Brothers appears to be slightly stronger than Bear Stearns and much stronger than Citigroup. These numbers suggest that Lehman Brothers was at least as worthy of a bailout as both Bear Stearns, which was bailed out in March 2008, and Citigroup, which later was bailed out with funds through TARP.

5 Conclusions

In summary, the financial risk and fraud models used in this analysis show potential for developing effective risk management monitoring and stronger corporate governance in order to enhance relationships between management, financial reporting, and the stability of the economic system in crisis and post-crisis conditions. The analysis shows that both Bears Stearns and Lehman Brothers seemed to be in similar, very weak financial positions. Bear Stearns bailout may have been helped by Wall Street connections, like Henry Paulsen, the U.S. Treasury Secretary and former CEO of Goldman Sachs. However, possibly the U.S. federal government later thought that Lehman Brothers was "too big to save" since it was twice the size of Bear Stearns. Then, after the Lehman Brothers bankruptcy ignited the world financial crisis, the federal government reversed its thinking and bailed out the largest 19 U.S. banks since they were now "too big to fail." This bailout occurred despite the fact that all these banks had received unqualified audit opinions on their financial statements and internal controls in their last annual reports before the bailout. No "going concern" qualified audit opinions were issued for possible bankruptcies in these banks. Thus, audit opinions appear not to be a tool for assessing the risk of financial distress for these institutions.

In response to an email about this issue of why Bear Stearns was saved and Lehman Brothers let go into bankruptcy, Lynn Turner, former SEC chief accountant, replied: "Both were highly risky with very, very arrogant CEOs and chairmen. Neither has a great board but Bear Stearns may have had better connections on their board and in this instance, Lehman Brothers being second was fatal. Both depended way too much on very short term financing, including overnight commercial paper or repo's---a very ill advised and highly risky strategy for any company let alone one with very little capital."

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Appendix A. Financial Risk Ratios and Models

Six different emerging models and ratios have been used to develop a red flag approach in screening for and identifying financial risk problems in publicly held companies in addition to traditional ratios. The models are available from the authors in an Excel file.

A.1 Quality of Earnings

The quality of earnings ratio is a quick and simple way to judge the quality of a company's reported net income. The ratio is operating cash flow for the period divided by net income for the period. The red flag benchmark is a ratio of less than 1.0 (Schilit 2003). Also, large fluctuations in this ratio over time may be indicative of financial reporting problems, i.e., Enron's quality of earnings ratios were 4.9, 1.4, and 2.3 over its last three years of operation. In its last year of operation, Enron forced its electricity customers to prepay in order to receive any electricity which dramatically increased its operating cash flows and quality of earnings ratio. Quality of earnings is also meant to measure whether a company is artificially inflating earnings, possibly to cover up operating problems. This ratio may indicate that a company has earnings which are not actually being converted into operating cash. Methods for inflating earnings (but not operating cash flows) include early booking of revenue, recognizing phony revenues, or booking one-time gains on sales of assets.

A.2 Quality of Revenues

The quality of revenues ratio is similar to the quality of earnings, except that the emphasis is on cash relative to sales rather than cash relative to net income. It is the ratio of cash collected from customers (revenues plus or minus the change in accounts receivable) to the company's revenue. Similar to the quality of earnings ratio, the red flag benchmark is a ratio of less than 1.0 (Schilit 2003). For example, Enron's quality of revenues went down from 0.98 to 0.92 in its last year of operation. Since manipulation of revenue recognition is a common method for covering up poor results, this simple metric can help uncover schemes used to inflate revenues without the corresponding cash collection. Common methods include extending increased credit terms to spur revenues but with slow collections, shifting future revenues into the current period, or booking asset sales as revenue.

A.3 Sloan Accrual Measure

The Sloan accrual measure (1996 and updated as discussed by Robinson 2007) is based on the analysis of accrual components of earnings. It is calculated as follows: net income less free cash flows (operating cash flow minus capital expenditures) divided by average total assets. The red flag benchmark is a ratio of more than 0.10. For example, Sloan calculated that JetBlue had a ratio of 0.50 and his employer, Barclays Global Investors, shorted the stock and made over 12% in less than one year. This ratio is used to help determine the quality of a company's earnings based on the amount of accruals included in income. If a large portion of a company's earnings are based more on accruals, rather than operating and free cash flows, then, it is likely to have a negative impact on future stock price since the income is not coming from the company's actual operations (Sloan 1996). Since many of the accrual components of net income are subjective, managers are able to manipulate earnings to make the company appear more profitable. In essence, the Sloan accrual measure is used to help determine the sustainability of a company's earnings.

A.4 Altman Z-Score

The Altman (1968 and updated in 2005) Z-Score is a multivariate statistical formula used to forecast the probability a company will enter bankruptcy within the next two years. The model contains five ratios which are listed below with their coefficients, based on Altman's research. The model was originally developed in 1968 for evaluating the bankruptcy risk of traditional public firms, such as manufacturing, energy, and retail, but it can also be applied to non-traditional and service public firms, such as software, consulting, and banking, as well as private firms. All three versions of the model are available on the Bloomberg software subscription package. The red flag bankruptcy prediction of the original model is a Z-Score of less than 1.8, with a score between 1.8 and 3.0 indicating possible bankruptcy problems (Altman 2005). For example, Altman had previously predicted that General Motors would "absolutely" seek bankruptcy protection and *"they still come up very seriously in the Z-Score test into the bankrupt zone after a 30 to 60 day reorganization"* (Del Giudice 2009).

A.4.1 (Working Capital / Total Assets) x 1.2

This ratio is a measure of a firm's working capital (or net liquid assets) relative to capitalization. A company with higher working capital will have more short-term assets and, thus, will be able to meet its short term obligations more easily. This ratio is one of the strongest indicators of a firm's ultimate discontinuance because low or negative working capital signifies the firm may not be able to meet its short-term capital needs.

A.4.2 (Retained Earnings / Total Asset) x 1.4

This ratio is a measure of a firm's cumulative profits relative to size. The age of the firm is implicitly considered due to the fact that relatively young firms have a lower ratio and the incidence of business failures is much higher in a firm's early years.

A.4.3 (EBIT / Total Assets) x 3.3

A healthy company will be able to generate income using its assets on hand. If this ratio is low, it demonstrates that profitability is poor and the company is in danger of bankruptcy as it is more vulnerable to market downswings which affect earnings.

A.4.4 (Market Value of Equity / Book Value of Total Liabilities) x 0.6

This ratio adds a market emphasis to the bankruptcy model. The theory is that firms with high capitalizations would be less likely to go bankrupt because their equities have higher values. In addition, it will gauge the market expectations for the company which should take into account relevant future financial information.

A.4.5 (Sales / Total Assets) x 0.999

This ratio, also known as total asset turnover, demonstrates how effective the company is utilizing its assets to generate revenue. If this number is low, it indicates that the company is not being run efficiently which creates a higher bankruptcy risk.

A.5 Z-Score (Beneish Fraud Model)

Beneish (1999) developed a statistical model used to detect financial statement fraud and earnings management through a variety of metrics. There are five key ratios used in the model, which are the Sales Growth Index (SGI), Gross Margin Index (GMI), Asset Quality Index (AQI), Days Sales in Receivables Index (DSRI), and Total Assets to Total Accruals (TATA). Each of these measures with its model coefficient, based upon Beneish's research, is outlined below. There is also a constant value in the model of -4.840. The red flag benchmark is a Z-Score greater than a negative 1.49, i.e., a smaller negative number or a positive number indicates possible financial reporting problems (Beneish 1999). For example, Enron had a Z-Score of a positive 0.045 in its last year.

A.5.1 SGI – Sales Growth Index x 0.892

This measure is current year sales divided by prior year sales. It is meant to detect abnormal increases in sales which may be the result of fraudulent revenue recognition. If a company experiences a very large increase in sales from one period to the next, it may be due to shifting revenue to a later period or booking phony revenue.

A.5.2 GMI – Gross Margin Index x 0.528

This measure is last year's gross margin divided by this year's gross margin. While not necessarily a direct measure for potential manipulation, companies that are experiencing declining gross margins may have increased pressure to improve financial performance. Such pressure may cause them to turn to fraud or questionable financial reporting to maintain net income margins.

A.5.3 AQI – Asset Quality Index x 0.404

This measure is the percentage of total assets that are intangible assets this year divided by the same percentage calculation for last year. An increase in this index may represent additional expenses that are being capitalized to preserve profitability. Rather than expensing various costs, such as research and development or advertising,

these costs are being capitalized as intangible assets. Capitalization increases assets while helping to maintain the profitability of the company.

A.5.4 DSRI – Days Sales in Receivables Index x 0.920

This measure is DSRI this year divided by DSRI last year. Companies that are trying to boost revenue and profit may allow customers to have greatly extended credit terms so that they will buy earlier. This practice increases revenue in the current quarter but may hurt future performance. This metric is meant to detect companies which make significant changes in their collection policies and/or recognize phony or early revenues.

A.5.5 TATA – Total Accruals to Total Assets x 4.679

This measure represents total accruals to total assets. Accruals represent non-cash earnings. Similar to Sloan's accrual measure and the accrual measure in the Dechow fraud model, an increase in accruals represents an increased probability of earnings manipulation and possible operating and free cash flow problems.

A.6 F-Score (Dechow Fraud Model)

This F-Score fraud model (Dechow, Ge, Larson, and Sloan 2007) can be used as a test for determining the likelihood of financial reporting manipulation. Similar to the other models and ratios, a fraudulent score for this model does not necessarily imply such manipulation but it serves as a red flag for further analysis. The model contains measures to identify problems in accruals, receivables, inventory, cash sales, earnings and stock issuances as discussed below with their coefficients, based upon their research. There is also a constant value of -6.753 in the model. The red flag benchmark is an F-Score greater than 1.0 and is calculated using an exponential model. For example, the F-Score for Enron in its last year of operation was 1.85. This research is the more extensive of the two fraud models since it was based upon an examination of all Accounting and Auditing Enforcement Releases (AAERs) issued by the SEC between 1982 and 2005 while the older Beneish study was based only on AAERs issued between 1982 and 1992.

A.6.1 Accruals x 0.773

Firms that engage in earnings manipulation typically have abnormally high accruals. A significant amount of non-cash earnings results in inflated earnings and is a warning sign for earnings manipulation. This measure is a complex calculation based upon numerous accrual measures and is scaled by average total assets. Essentially any business transactions other than common stock are reflected in accrual measures (Dechow et.al. 2007).

A.6.2 Change in receivables x 3.201

The change in receivables from last year to this year is scaled by average total assets. Large changes in accounts receivables may indicate revenue and earnings manipulation. Such manipulation can occur through the early or phony recognition of revenue and large swings in accounts receivable will distort cash flows from operations.

A.6.3 Change in inventory x 2.465

The change in inventories from last year to this year is scaled by average total assets. Large changes in inventory may indicate inventory surpluses, shortages, obsolescence, or liquidation. For example, if the company uses the last-in first-out (LIFO) method of accounting for inventory in a period of rising prices, selling older inventory will result in lower cost of goods sold, i.e., LIFO liquidation of inventory units or layers. This practice leads to inflated earnings.

A.6.4 Change in cash sales x 0.108

This measure is the percentage change in cash sales from last year to this year. For a firm not engaged in earnings manipulation, the growth rate in cash sales should approximate the growth rate in revenues. Thus, the change in cash sales is a key metric to monitor when evaluating the potential for earning manipulation.

A.6.5 Change in earnings x -0.995

This measure is a percentage calculated as earnings divided by total assets this year less the same measure last year. Volatile earnings may be indicative of earnings manipulation. According to Dechow, Ge, Larson, and

Sloan (2007), a consistent theme among manipulating firms is that they have shown strong performance prior to manipulations. The cause for such manipulations may be a current decline in performance which may be covered up by manipulating financial reporting.

A.6.6 Actual issuance of stock x 0.938

This measure is a dummy variable that is ON if additional securities are issued during the manipulation year and is OFF if no such securities are issued. Such issuances may indicate operating cash flow problems that need to be offset by additional financing. Also, issuance of stock may indicate that managers are exercising their stock options. The exercise of stock options may signify that managers are attempting to sell at the top because they foresee future underperformance of the company. Such insider sales resulted in the criminal conviction of Qwest's Chief Executive Officer and have been a significant non-financial red flag. For example, Qwest and Enron insiders made $2.1 billion and $1.1 billion, respectively, by exercising and selling their stock options before their firms' financial reporting problems became public.

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