

**EARNINGS MANAGEMENT AND
CORPORATE GOVERNANCE: AN
EMPIRICAL STUDY OF THE LISTED
COMMERCIAL BANKS IN CYPRUS**

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Abstract

This dissertation is an examination of the incentives, opportunities and disincentives for earnings management. The research was conducted for the listed, commercial banks in Cyprus. The period examined includes the years 2002-2011, for which the required information was available. After having considered the literature review, the regulations that affect banks' financial reporting and the results from interviews conducted the research hypotheses were formulated and tested with regressions.

The conclusions drawn from this empirical analysis were as follows. The existence of a cash bonus and leverage did not create incentives for earnings management through the use of discretionary accruals. This finding was observed because the net profit was not considered in cash bonus decisions. In addition, most of the banks' debt was in the form of deposits; deposit schemes do not include covenants that have to be met like other debt contracts. Discretionary accruals were therefore saved so that they could be used to manage earnings and increase regulatory capital. The evidence suggests that when the capital adequacy ratio was low, earnings were managed in order to artificially boost the capital base. The empirical results confirm that regulators perceived banks as being adequately capitalized and hence did not scrutinize

bank practices. Banks were then able to grow and to grant loans very generously. Recognition of more interest revenue helped to cover higher interest paid to depositors and also helped executives to earn their bonus. The evidence also suggests that when the CEO was also the chairman of the board, the quality of earnings deteriorated. However, when directors owned shares and as board independence increased, the quality of earnings was improved.

Considering the recent financial crisis and that one of the largest banks has collapsed, the results of this thesis should be of great importance to boards and their audit and remuneration committees, shareholders, depositors, auditors and the supervisory authorities.

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Chapter 1: Introduction

The purpose of this thesis was to investigate earnings management practices in the Cyprus banking sector. An empirical investigation of banks was of interest because of their systemic importance to the economy. The most significant role that banks play in Cyprus is that of financial intermediation. Because businesses find it difficult to raise funds through the local stock exchange, banks are the best source of flexible funding. Individuals and households also secure lending for personal and housing needs via banks. Another characteristic of the Cyprus banking sector is that it relies mostly on deposits in order to raise funds and hence be able to lend individuals and businesses. The existence of no other alternative to transfer capital between savers and lenders proves how critical banks are for Cyprus.

As discussed in Chapter 5: “Theory of Methodology” this empirical study was classified under the critical realism philosophy. It is recommended that critical realists proceed with a critical evaluation of the literature of the phenomenon to be investigated, develop a conceptual framework and set the research objectives (Zachariadis and Scott, 2010). In line with this recommendation, after the phenomenon to be investigated was chosen (i.e. earnings management), the next step was to carry out a comprehensive review of the earnings management literature and set the research objectives.

In the literature, earnings management is defined as a phenomenon that occurs when managers use their discretion to make accounting choices and estimates or to enter into transactions so as to increase or decrease reported net income at will (Copeland, 1968).

Earnings management exists because, under the Generally Accepted Accounting Principles (GAAP), accounting options are given for presenting financial performance. It can therefore be inferred that, under the current accounting system, accountants should be able to calculate some “unmanaged” income figure and any deviation of reported profits from this benchmark is evidence of earnings management (Schipper, 1989).

Depending on what type of accounting item is used, earnings management can be classified as real or cosmetic (Schipper, 1989). Real earnings management involves the timing of the recognition of events in the period that is most advantageous to management (Travers, 2002). Cosmetic earnings management involves the flexibility to choose from a set of accounting methods or to change accounting estimates. Given that the objective of financial reporting is to provide information that is not only reliable but relevant as well, managers can use their discretion to communicate their private information to capital markets (Healy and Palepu, 1995). However the “signalling” perspective does not eliminate the possibility that financial statement preparers may be opportunistic.

Watts and Zimmerman (1990) argue that managers are primarily motivated by self-interest. They predict that when managers are rewarded in terms of accounting-based bonus systems, they will manage earnings upwards in order to secure their compensation. They also hypothesize that where lending contracts include accounting based covenants, managers will try to income maximize in order to avoid covenant violations. Finally, Watts and Zimmerman assume that managers of firms that are subject to political scrutiny from various external groups, such as government or employees, will try to manage income downwards in order to avoid regulatory intervention or combat labour demands.

Unlike non-financial firms, under the political cost hypothesis, banks will be motivated to manage earnings upwards because banking institutions face regulatory monitoring that is explicitly tied to accounting numbers. Banks are required to maintain a minimum capital adequacy ratio that equals regulatory capital divided by risk weighted assets and off balance sheet items. Regulatory capital includes accounting profits, so banks can artificially boost their ratio through profitability.

Equity based compensation also provides managers with a motivation to income maximize in order to increase the stock price (Hall and Murphy, 2003). Behavioural finance proposes that investors may have the tendency to ignore the way accounting numbers are calculated, and most often fixate on the net profit (Stolowy and Breton, 2004). One method of valuing a company's stock price is to discount the sum of its expected future dividends back to their present value, using a return that investors

require (Gordon, 1959). Since dividends are paid out of earnings, expectations about future earnings can be formed, at least in part, on the basis of historical earnings.

Similarly, job security concerns provide incentives for earnings management because profitability informs shareholders about the quality of managerial decisions (Fudenberg and Tirole, 1995).

Under the transactions cost theory, firms that report higher profits can generally secure more favourable terms for their transactions (Cornell and Shapiro, 1987). Therefore, implicit contracts with customers / suppliers create incentives for earnings management (Bowen, DuCharme and Schores, 1995).

Finally, when book income is the same as taxable income, then firms have incentives to manage earnings downwards so as to reduce the tax to be paid (Klassen, 1997). However, accounting profits are not equal to taxable profits. For tax purposes, the tax to be paid is calculated according to government regulations. Thus, when book income is uncoupled from taxable income, then firms have incentives to reduce the tax to be paid and use earnings management techniques that will increase book profits (Frank, Lynch and Rego, 2009).

In the literature, there is empirical evidence that corporate governance factors can control managerial opportunistic behaviour and protect shareholders' interests.

These governance variables include: the board of directors; audit committees; the quality of external audit; and corporate ownership.

Board effectiveness can be ensured by independence, expertise, size and meetings. The boards' monitoring role is improved when the proportion of outside, non-executive directors is high (Fama, 1980; Fama and Jensen, 1983). Non-executive directors often have a financial background or frequently hold senior management positions in other large corporations; thus they have the ability to monitor the financial reporting process in order to detect earnings management as well (Fama and Jensen, 1983; Peasnell et al., 1999). Board size is another important element that may have an effect on earnings management. Smaller boards, between four to six members might be more effective since they are able to make timely strategic decisions (Goodstein et al., 1994). On the other hand, a larger board with a lot of members who have varied expertise could increase the synergistic monitoring of the board and reduce the incidence of earnings management (Xie et al., 2003). Finally, boards that meet frequently are more likely to perform their duties diligently (Lipton and Lorsch, 1992).

The audit committee's effectiveness can be improved by independence, expertise and activity. Independent audit committees function effectively because they are free of influences from executives (Vicknair et al., 1993). Outside directors are also likely to have relevant experience and be effective in reducing earnings management (Choi et al., 2004). Finally, in order for the audit committee to be effective, it must not only be independent but it must also be active (Menon and Williams, 1994).

Earnings management is less likely in companies audited by a Big auditing firm because Big auditing firms are expected to be independent, experienced and provide a higher-quality audit (DeAngelo, 1981). A major concern about auditing is whether auditors' independence is compromised by tenure or by non-audit services offered to clients (Chen, Lin and Lin, 2008). It is argued that longer auditor tenure is associated with greater expertise in the sense that auditors have a better understanding of their customers' business affairs. On the other hand the close relationship developed between auditor and clients may lead to an impairment of independence and objectivity. The provision of substantial amounts of non-audit services to clients may also make it more likely that auditors concede to the wishes of their customers when difficult judgments are made (Patterson and Valencia, 2011).

Block ownership is also an important external control mechanism to managers (Shleifer and Vishny, 1997). A block shareholding creates more incentives to monitor the actions of managers because monitoring will produce a bigger share of benefits (Shleifer and Vishny, 1986). Inside ownership is viewed as a governance mechanism that can help reduce agency costs because it aligns the interests of the executives with those of shareholders (Jensen and Meckling, 1976).

In summary, there are two theories that dominate the literature: the theory on incentives and the theory on disincentives for earnings management. The incentives to manage accounting profits include: compensation, lending and implicit contracts; political costs; stock price effect; fear of dismissal; and taxation. The disincentives for

earnings management include: board of directors; audit committees; the quality of external audit; and corporate ownership. Finally, under the GAAP, accounting options are given for presenting financial performance, thus creating opportunities for earnings management. Based on the conceptual framework developed from the literature review, the research objectives were formulated as follows:

1. Why does earnings management take place i.e. the incentives
2. How does regulation provide opportunities for earnings management and
3. How corporate governance and regulation can help limit such practices.

Besides the conceptual framework developed from the literature review, critical realists argue that the assessment of government reports and other sources can also help to develop an explanatory framework (Olsen, 2009) In critical realism research, it is assumed that an external reality exists, and this reality affects human activity and creates the phenomena we observe (Wikgren, 2005). Consistent with this suggestion, the next step in this study was to carry out a critical evaluation of the laws that affect banks' financial reporting and hence impact bank executives' decisions. The relevant legal framework in Cyprus includes: the Company Law; the Tax Law; the Stock Exchange Rules and its Corporate Governance Code; the Regulations of the Central Bank and the International Financial Reporting Standards. The critical evaluation of the laws in Cyprus has revealed that the motivations to manage earnings are: to increase profitability so as to increase the capital base for regulatory and internal capital adequacy purposes; attract and maintain shareholders and affect the stock price; compensation considerations of executive directors and key management personnel; and fear of dismissal.

The opportunities to manage bank earnings relate to: loan loss provisions, loan restructuring and loan classification as non performing; sale of assets; adequacy of insurance liabilities; depreciation and amortization; revaluation of investment properties; defined benefit plan costs and stock based compensation; impairment of assets; unrealized gains losses of investments and derivatives (Level 3 inputs); and reduction of deferred tax asset. Finally, the disincentives for earnings management arise from: the penalties that can be imposed as per the Cyprus Stock Exchange and Company Laws; effective boards, effective audit committees, inside ownership; active engagement and dialogue by shareholders; the quality of the audit and the relationship of auditors with the Central Bank and; supervision and inspection by the Central Bank.

The next stage in critical realism research is to collect primary data that can confirm or disconfirm the conceptual frameworks developed in the previous stages (Sobh and Perry, 2009). In addition, interviews can be used to help reduce the data from the conceptual framework and contribute to the development of hypotheses (Wikgren, 2005). Interviews are needed with individuals that are actively involved in the events (Yin 2003, p8.) Consequently, since this study is about earnings management and the quality of financial reporting, interviews were conducted with either a CEO or a CFO from each of the twelve commercial banks that operate in Cyprus and one bank auditor. This choice was made because, in any organisation, the individuals ultimately responsible for the true and fair view of financial statements are the CEOs and the CFOs. The auditor was also selected, because, he is working for a Big accounting firm that is responsible for the auditing of five out of the twelve commercial banks that

operate in the country; this fact suggests experience in banking matters. The interview results revealed that, during the period for which the research was carried out, the most significant incentives for earnings management were the capital adequacy ratio and executive compensation. Bank boards were viewed as the most important disincentive for earnings management. Finally, it was strongly accepted that the tools used to manage earnings were the loan loss provisions and the real gains or losses from the sale of investments.

In the last stage of critical realism research, if the demi-regularities observed from interviews can be quantified, regressions may be used to test hypotheses (Olsen, 2009). In line with this argument, after conducting the interviews, the research hypotheses were formulated and regressions were estimated in order to test for earnings management.

More specifically, it was hypothesized that bank managers will manage earnings upwards in order to: secure their cash bonus; increase the stock price where their compensation includes stock options; and increase the bank's capital adequacy ratio.

It was also hypothesized that earnings management will be constrained when: boards include a high proportion of independent directors; the CEO is not the chairman of the board; the CEO does not sit in the nomination committee; the board meets frequently; and executive directors own bank shares.

Other bank specific variables that could provide explanatory variations in earnings management were also considered. Hence, it was also hypothesized that bank managers will manage earnings upwards in order to meet accounting based covenants included in lending contracts. It was also assumed that large and growing banks are more likely to attract the attention of regulators, and as a result earnings management will be constrained. The natural logarithm of total assets was used as a proxy for bank size and the market to book value of equity was used as a proxy for growth.

One of the many approaches that can be used to detect earnings management is the specific accrual approach that focuses on an industry in which a single accrual is of material size and requires substantial judgment (Sun and Rath, 2010). This argument is consistent with the interview results; loan loss provisions is a bank specific accrual that is subject to a lot of managerial discretion and can be used to manage earnings. In banking, managers can choose when to sell their investment securities since it may be difficult to detect earnings management through real actions, because there is no benchmark to determine whether managers have made the right decision or not (Ball and Shivakumar, 2008). This argument is also consistent with the answers provided by interviewees.

Hence, the first metric for earnings management was based on loan loss provisions (LLP's) and realized securities gains and losses (RSGL's). Following Cornett et al., (2009) and Leventis and Dimitropoulos (2012) regression models were

estimated in order to calculate the discretionary part of LLP's and RSGL's. Earnings management (EM) was then measured as the difference between discretionary real securities gains and losses (DRSGL's) and discretionary loan loss provisions (DLLP's). Lower levels of DLLP's and higher levels of DRSGL's correspond to higher levels of earnings management, which increase income.

Another approach that may be used to detect earnings management is the total accrual approach (Sun and Rath, 2010). Total accruals can measure earnings management in a more comprehensive manner because, most of the time, managers tend to exercise discretion over various items to accomplish a specific goal. Therefore, the likelihood of detecting earnings management through the use of accruals is increased. Considering the financial crisis, it was also decided to use a second metric of earnings management, the discretionary accruals (DACCR). Following Leventis and Dimitropoulos (2012), the discretionary portion of bank's total accruals was estimated.

After having derived the two measures of earnings management, two broad sets of regressions were estimated. The first regression treats EM as the dependent variable whereas the second regression treats (DACCR) as the dependent variable. Both regressions have the same explanatory variables which are: cash bonus, board ownership, board independence, CEO duality, whether the CEO sits in the nominating committee, board meetings, capital adequacy ratio, market to book value (a measure for growth), the natural logarithm of assets (a measure for bank size) and leverage.

The remainder of this research study is organised as follows: Chapter 2 includes a review of the earnings management literature; Chapter 3 provides a brief description of the Cyprus banking sector; Chapter 4 includes the evaluation of the Cyprus regulatory framework; Chapter 5 explains the nature, the paradigms and the methodology of the research; Chapter 6 presents the results from interviews; Chapter 7 includes the research hypotheses, the regressions estimated in order to develop the measures of earnings management, the regressions estimated to test for earnings management and the empirical results; and Chapter 8 concludes the thesis.

Chapter 2: A Review of the Earnings Management Literature

2.1 Introduction

There are two theories that dominate the earnings management literature: the theory on incentives and the theory on disincentives for earnings management.

According to the “incentives for earnings management theory”, managers are primarily driven by self-interest. Thus, managers will use the discretion provided under the GAAP in order to increase, decrease or smooth accounting profits. There is empirical evidence that, where accounting alternatives exist, managers have an incentive to manage earnings so as to: secure a bonus which depends on accounting numbers; avoid accounting based debt covenant violations; and avoid political scrutiny from external groups such as the government, employees, environmental groups and so on (Watts and Zimmerman, 1990). In addition to these motivations, other incentives to manage accounting reported profits arise from job security concerns (Fudenberg and Tirole, 1995), the effect on stock price (Hall and Murphy, 2003), implicit contracts (Bowen et al. 1995) and taxation considerations (Klassen, 1997).

According to the “disincentives for earnings management theory”, strong corporate governance mechanisms can control the incidence of earnings management (Coffee, 2005). There is empirical evidence that, the corporate the governance mechanisms which can limit opportunistic behaviour include: effective board of directors; effective audit committees; the quality of external audit; and the structure of

corporate ownership. Board effectiveness can be ensured by independence, expertise, size and meetings. Audit committee effectiveness can be ensured by independence, expertise and activity. Audit quality is improved when auditors are independent and experienced. Block ownership of a firm's stock provides owners with more incentives to monitor managerial actions, because monitoring will produce a bigger share of benefits; and finally, inside ownership helps to align the interests of managers and shareholders, thereby reducing the incentives to manage earnings.

This chapter includes a review of the earnings management literature and it is organised as follows: Section 2.2 provides a definition of earnings management; Section 2.3 explains the classification of earnings management practices; Section 2.4 clarifies the objectives of earnings management; Section 2.5 includes the earnings management dimensions; Section 2.6 explains why earnings management exists; Section 2.7 includes the incentives for earnings management together with empirical studies; and Section 2.8 includes the disincentives for earnings management along with supporting evidence.

2.2 Definition of Earnings Management

Earnings management is the intentional increase or decrease or smoothing of net income, and it occurs when managers use their discretion to make accounting choices or to design transactions (Copeland, 1968).

Earnings management is intimately related to the accrual accounting system (Dechow and Skinner, 2000). Under a cash accounting system, revenues would be recorded in the books when received and expenses would be recognized when paid. Under the accrual system, some items are recognized before cash is received or paid (i.e. credit sales and purchases). In order to achieve matching of revenues with expenses, in the period of a credit sale a related bad debt estimate must be recorded. Similarly, the cost of a fixed asset is recognised through periodic depreciation charges in order to match the benefits produced from the use of the asset with its cost (Deegan and Unerman, 2006, p. 387).

Under the GAAP, accounting options are given for presenting financial performance. Thus, the application of the accrual system can be a subjective rather than an objective process, and depending upon the choices made, many different earnings figures can be achieved (Deegan and Unerman, 2006, p. 387). Hence, while the conceptual framework supports objectivity and neutrality, the potential influences of management's discretion can make objectivity questionable.

It can therefore be inferred that, under the current accounting system, accountants should be able to calculate some "unmanaged" income figure and any deviation of reported profits from this benchmark is evidence that an intentional intervention in the external financial reporting process has taken place (Schipper, 1989).

2.3 Classification of Earnings Management Practices

Earnings management practices can be classified into two categories: practices that fall within the GAAP and practices that fall outside the GAAP (Dechow and Skinner, 2000).

Accounting practices that are outside the GAAP constitute fraud (Stolowy and Breton, 2004). Examples of fraudulent activities would be fabricating false invoices, falsifying or altering documents, deleting transactions from records, recording forged transactions or concealing significant information (Merchant, 1987). For example, over the period of 1997 through 2002, reporting of false information resulted in a hyperbolic increase of financial statement restatements in the USA (Coffee, 2005). The main reason for these restatements was recognition of revenues that did not exist.

Accounting practices that fall within the GAAP are considered to be legal if managers can provide reasonable economic justification for their accounting choices (Merchant, 1987). They may be erroneous but never fraudulent (Dechow and Skinner, 2000). Compliance with accounting standards however does not guarantee that a firm's financial statements will present the true and fair. Vague accounting standards provide managers with the opportunity to make creative accounting choices and consequently provide misleading information (Tweedie and Whittington, 1990). Creative accounting choices remain within the limits of the law while bending its spirit. Alternatively, it can be argued that reported profits are not necessarily the result of intentional manipulation but

rather could be the result of aggressive interpretations of accounting standards, which are becoming complex, difficult and costly to implement (Travers, 2002).

2.4 Objectives of Earnings Management

Managers exercise their discretion over accounting choices or when structuring transactions in order to maximize, minimize or smooth reported profits (Peasnell, Pope and Young, 2000). The objective of income smoothing is to reduce the variance of accounting profits over time and produce a steadily growing stream of earnings. This helps to give the appearance of high earnings quality and earnings persistence.

The significant difference between the objectives of earnings management is the underlying motivation to manage the accounts (Moore, 1973). Income “maximizers” or income “minimizers” do not behave like smoothers, therefore the attempt to modify accounting numbers will depend on the circumstances (Copeland, 1968). Regardless of the result, manipulations have a common characteristic: they are all based on the assumption that accounting is used as a tool for pursuing the general strategy of the firm or its management (Stolowy and Breton, 2004).

2.5 Earnings Management Dimensions

Depending on what type of accounting item is used, earnings management can be classified as real or cosmetic (Schipper, 1989).

Real earnings management involves the timing of the occurrence or recognition of events in the period that is most advantageous to management (Travers, 2002). Managers may sell an asset in the current year in order to recognise an immediate profit; they also have the flexibility to choose the level of reported expenses such as research and development. This type of earnings management is visible because outsiders, including auditors, may observe it in the year that it takes place.

Cosmetic earnings management involves the choice from a set of accounting methods or the flexibility to change estimates that are required to apply these methods. This type of earnings management may be harder for an outsider to observe. In addition the effects of accounting method changes or changes in the way that methods are applied are very hard to estimate in the years subsequent to the year of the change (Schipper, 1989).

2.6 Why Does Earnings Management Exist?

Granted that, under the current GAAP, managers have the flexibility to manage earnings, one could argue that opportunities for such behaviour should be eliminated (Schipper, 1989). If managers do not manipulate earnings in order to bring about desired short-term results, the earnings quality will be improved since the earnings figure will be more reliable (Akers, 2007). However, according to the conceptual framework, the major objective of financial reporting is to provide investors and creditors with information that is not only reliable but relevant as well. Reported earnings should

reflect the firm's true earnings and help predict future earnings. Thus, the concept of earnings management is related to the concept of earnings quality (Akers, 2007).

Earnings management therefore exists because it can be used as a vehicle of communicating managers' private information to capital markets (Healy and Palepu, 1995). Even though the users of financial statements can evaluate a firm's financial position and performance using a variety of information sources that are publicly available, including information provided in the financial statements and supplementary disclosures, this does not eliminate the possibility that insiders will know more than outsiders about the current and future potential of the firm (Beaver, 1991). For example, firms that have different patterns of use in relation to fixed assets will adopt different depreciation policies; estimates of uncollectible receivables can be viewed as a means of providing information about default risk that is not publicly known from other sources (Deegan and Unerman, 2006, p. 220). The potential for communicating inside information through earnings management is referred to as the "efficiency perspective". Viewed from this perspective, the investors have a benefit so earnings management may be considered to have a "good side" (Peasnell, Pope and Young, 2000).

However, the "efficiency perspective" does not consider that some financial statement preparers may be creative when preparing financial reports. Particular accounting methods may be selected driven by self-interest (Watts and Zimmerman, 1978). This "opportunistic perspective" explains the practice of creative accounting, which refers to a situation where those responsible for the preparation of accounts

select accounting methods that provide the result desired by the preparers (Deegan and Unerman, 2006, p. 43). For example, a manager may opportunistically choose to change the depreciation method for property, plant and equipment; or a manager may understate the provision for bad debts; a manager can also choose to change the inventory valuation method. And this can be done at a time when the organization is close to breaching accounting based agreements negotiated with external parties, such as loan agreements, which have a specified minimum interest coverage ratio, below which particular assets of the reporting entity may be seized.

In summary, managerial judgment in financial reporting has both benefits and costs. The benefits include the potential to communicate management's private information to external stakeholders. The costs are potential misallocation of resources. In reality it is often difficult to conclude that an accounting choice was driven solely by an efficiency or an opportunistic motivation (Deegan and Unerman, 2006, p. 220). For example, managers may choose accounting methods in self-interested attempts to increase the stock price prior to the sale of stock options they hold. On the other hand, the same accounting choices may be motivated by managers' objective assessment that the current stock price is undervalued relative to their private information (Deegan and Unerman, 2006, p. 224).

2.7 Incentives for Earnings Management

There is a body of literature that suggests that those responsible for preparing financial statements are driven by self-interest and select accounting methods that lead to favourable outcomes for their own personal wealth.

In 1990, Watts and Zimmerman published an article that considered ten years of development of Positive Accounting Theory. In their theory they assume that managers are primarily motivated by self-interest (tied to wealth maximization), and that the particular accounting method selected (where alternatives are available) will depend on the following:

- whether the managers are rewarded in terms of accounting-based bonus systems (bonus plan hypothesis);
- whether the firm that managers work for is close to violating accounting-based debt covenants (debt hypothesis); and
- whether the firm that managers work for is subject to political scrutiny from external groups, such as government, employees or environmental groups (political cost hypothesis).

In addition to the motivations considered in the Watts and Zimmerman study, other incentives to manage reported profits may arise from job security concerns (Fudenberg and Tirole, 1995), the effect on stock price (Beaver, 1991), implicit contracts (Bowen, DuCharme and Schores, 1995) and taxation considerations (Klassen 1997).

Explanations on the motivations for earnings management with supporting evidence are provided next.

2.7.1 Contractual Motivations

In large organizations with dispersed ownership, the stockholders are not involved in the decision process because it may be costly for all of them to do so or because they may not be qualified to participate in this procedure. Thus they delegate their decision control rights to other agents, the managers (Fama and Jensen, 1983).

The delegation of decision making from stockholders (principals) to managers (agents) is referred to as an agency relationship. When the owner (principal) delegates decision-making authority to a manager (agent), it is possible that the manager may not work as hard as the owner would, given that the manager might not share directly in the results of the organization (Deegan and Unerman, 2006, p. 207).

Jensen and Meckling (1976) considered the relationships and conflicts between agents and principals and how various contractual mechanisms can assist in minimizing the agency cost. In the agency theory literature, the firm is considered to be a nexus of contracts that are put in place with the intention of ensuring that all parties, acting in their own self-interest, are at the same time motivated towards maximizing the value of the organization (Jensen and Meckling, 1976). Firms enter into many contracts with their employees (including managers), capital providers (including lenders), customers, suppliers, and so on (Scott, 2003, p. 274).

Explicit contracts include written commands that specify the duties and rights of agents, the performance criteria on which agents are evaluated and their payoffs, both fixed and incentive. Usually contracts are based on observable accounting variables that are used to reward or punish the agents' behavior (Jensen and Meckling, 1976). If agents have the discretion to choose from an "accepted" set of accounting methods, they will choose those methods that affect the accounting reported figures based on which the agents will be evaluated. Thus contracts create motivations to manage accounting reported figures. Examples of such contracts are the compensation and lending contracts.

Under the transactions cost theory, firms that report higher profits can generally secure more favourable terms for their transactions (Cornell and Shapiro, 1987). Therefore, implicit contracts with customers / suppliers create incentives for earnings management (Bowen, DuCharme and Schores, 1995).

2.7.1.1 Compensation Contracts

An employment contract is an explicitly written contract between a firm's owners and its managers that specifies the compensation of the latter. If managers are rewarded on a fixed basis, that is, receive a set salary, then assuming self-interest, managers would not want to take great risks as they would not share in any potential gains (Deegan and Unerman, 2006, p. 225). It thus becomes necessary to put in place remuneration schemes that compensate managers in a way that is, at least in part, tied

to the performance of the firm (Deegan and Unerman, 2006, p. 225). This will be in the interest of the manager, as that manager will potentially receive greater rewards.

For this reason, cash bonus schemes can be put in place in order to align the interests of the owners and the managers. If the firm performs well, both parties have a benefit. Accounting earnings are often used to calculate the manager's payoff (Healy, 1985) because it is a more efficient measure of the manager's performance than other measures such as stock prices and realised cash flows. There are two reasons for this. First, stock prices are influenced more by market factors that are outside the control of management and, hence, are less effective in isolating that part of performance that results from the manager's actions (Sloan, 1993). Second, realised cash flows do not take into account the manager's actions at the time those actions are put in place to increase the value of the firm. Hence, realised cash flows do not provide a timely measure of the effect of the manager's actions on firm performance (Dechow, 1994). Since accounting earnings are efficient in measuring firm performance, they play an important role in determining the reward and punishment of performance.

Positive Accounting Theory assumes that if a manager is rewarded on the basis of accounting numbers, then the manager will be more likely to use accounting methods that increase current period reported income. Such selection will presumably increase the bonus, especially if the compensation committee does not adjust for the method chosen. In contrast, if the manager is risk-averse, he/she could be expected to make accounting choices and smooth reported earnings in order to secure a less variable

bonus streams over time (Scott, 2003, p. 275). The studies presented next provide empirical evidence on the bonus hypothesis and earnings management.

Haggerman (1979) has provided evidence which suggests that, managers were influenced by economic reasoning when making accounting choices. Managers made choices between depreciation and inventory methods, amortization of past service costs for defined benefit plans and investment tax credits to manage profits in order to earn a bonus.

Healy (1985) found evidence that, when the firms' net incomes were below the lower bound or above the upper bound required to earn the bonus, managers used more income decreasing accruals since the bonus would not be paid anyway. The probability of receiving a bonus in the following year was then increased, since current write-offs would reduce future charges. Only when the net incomes were in the inside area the managers were motivated to adopt accounting policies to increase reported net income. For firms where the bonus scheme had only a lower bound, Healy found that the average accruals were significantly less negative for the above the lower bound observations. Healy also tested whether managers made accounting policy changes when bonus plans were amended. Accounting policy changes are highly visible and the standard of consistency does not allow such changes often. If managers are going to change accounting policies, a good time to do it is just after the introduction or the amendment of a bonus plan. The author found that, that in nine of the twelve years tested, firms with bonus plan changes did in fact have more accounting policy changes.

Lewellen, Loderer and Martin (1987), have found that US managers approaching retirement were less likely to undertake research and development expenditure if their rewards were based on accounting profits. This result is as expected because, under the GAAP, research and development has to be written off as incurred, and hence profits are reduced. Although the research and development expenditure would be expected to lead to benefits in subsequent years, the retiring managers would not be there to share in the gains.

McNichols and Wilson (1988) found that, for US firms with high level of receivables, the provision for bad debts was significantly income reducing for firm years that were very unprofitable (likely to be below the lower bound of a bonus plan) and very profitable (likely to be above the upper bound of the bonus plan). For firm years that were between these extremes, provision for bad debts was income increasing.

Haw, Jung and Lilien (1991) examined managerial motivation to increase profits for compensation purposes through the settlement of over-funded defined benefit pension plans. According to the GAAP, firms that hold plan assets in excess of their defined pension benefit liability can engage in a settlement transaction and recognize this excess as a gain in current income. The results suggest that settlement firms were found to have a smaller distance below the lower bound as compared with that of the pair-matched firms. The settlement gains increased the distance by 19% above the lower bound thereby enabling managers to earn a bonus.

Skinner (1993) has documented that firms with bonus plans were more likely to select income-increasing depreciation and goodwill methods when bonuses were tied to accounting earnings.

Clinch and Magliolo (1993) have found that, for a sample of US banks, managers used discretionary cash flow transactions in order to affect reported income and their compensation. Discretionary cash flow earnings include items such as sales of investment securities, sales of fixed assets, sales of subsidiaries, loan securitizations, sales of credit-card portfolios, restructuring or termination programs, gains or losses from early debt retirements, and income from pension settlements. There is no evidence that managers used discretionary non cash-flow earnings, such as depreciation or loan loss provisions, to secure cash compensation.

Gaver, Gaver and Austin (1995) also document that, when earnings before discretionary accruals fell below the lower bound, managers selected income-increasing discretionary accruals and vice versa. The results suggest that managers tried to smooth income around the bound necessary to earn a bonus.

Holthausen, Larcker and Sloan (1995) also provide evidence that managers used discretionary accruals to manipulate earnings downwards when their bonuses were above the upper bound. The authors found no evidence that managers manipulated earnings downwards when earnings were below the minimum necessary to receive any bonus. Additional tests for manipulation did not provide evidence that real investment decisions and the timing of asset sales were influenced by the bonus considerations of

executives.

Results provided by Guidry, Leone and Rock (1999) are also consistent with managers manipulating earnings with accruals and more strongly through the choice of inventory valuation method. The findings reveal that managers in the MID portfolio made more income-increasing discretionary accruals relative to those in the UPP and LOW portfolios.

Keating, Zimmerman and Simon (1999) hypothesized that firms would choose to manage earnings by applying depreciation method changes to all assets if they exhibited worse financial performance relative to firms applying the method changes only to new assets. The results indicate that firms that made income-increasing method changes for all their assets had significantly lower sales, lower return on assets and higher leverage than firms that changed methods for new assets only or firms that changed estimates. The evidence is consistent with earnings management to increase executive compensation.

Gao and Shrieves (2002) have also found evidence that discretionary accruals were positively related to bonuses and the intensity of earnings management was conditional on whether pre-managed earnings were close to specified targets.

Shuto (2007) has shown that, in Japan, managers receiving no bonus adopted income-decreasing accruals and negative extraordinary items. For firms that had bonus plans, the results indicate that the use of discretionary accruals to smooth income

increased executive compensation. These results suggest that Japanese executives were rewarded for taking the persistence of earnings into consideration.

Dechow, Myers and Shakespeare (2010) tested whether gains from asset securitizations were considered for bonus purposes. Securitization offers discretion both in terms of timing the asset sale as well as from fair-valuing the retained interest. When receivables are sold to an SPE, the firm derecognizes receivables, records the cash received, and creates a “retained interest” asset for the amount of the receivables that are not sold. This asset must be fair valued, and managers have considerable discretion over the estimates of the future cash flows, default rates and the choice of the discount rate. Any difference between the assets received and the carrying value of the derecognized assets is recorded as a securitization gain or loss in the income statement. The authors have found that CEO compensation in the form of a bonus was sensitive to the reported securitization gains and that the gains appeared to be treated as a regular earnings component. This suggests that CEOs, on average, were rewarded for the gains they reported.

Table 1 on the next page provides a summary of the results of the empirical studies on the cash bonus hypothesis and earnings management.

Table 1: Results of Empirical Studies on the Cash Bonus Hypothesis and Earnings Management (in chronological order)

| Authors | Results |
|-------------------------------------|---|
| Haggerman (1979) | Managers make choices between depreciation and inventory methods, amortization of past service costs for defined benefit plans and investment tax credits to manage profits in order to earn a bonus. |
| Healy (1985) | When the firms' net incomes are below the lower or above the upper bound required to earn the bonus, managers use income decreasing accruals. When the net incomes are in the inside area, managers adopt accounting policies to increase reported net income. For firms with only a lower bound, the average accruals are significantly less negative for the above the lower bound observations. Firms with bonus plan changes have more accounting policy changes. |
| Lewellen, Loderer and Martin (1987) | Managers approaching retirement are less likely to undertake research and development expenditure if their rewards are based on accounting profits. |
| McNichols and Wilson (1988) | For firms with high level of receivables, the provision for bad debts is significantly income reducing for years that are very unprofitable (likely to be below the lower bound of a bonus plan) and very profitable (likely to be above the upper bound of the bonus plan). For firm years that were between these extremes, provision for bad debts is income increasing. |
| Haw, Jung and Lilien (1991) | Managers use settlement gains of over-funded defined benefit pension plans in order to increase the distance of pre-managed profits from the lower bound, thereby enabling managers to earn a bonus. |
| Skinner (1993) | Firms with bonus plans are more likely to select income-increasing depreciation and goodwill procedures when bonuses are tied to accounting earnings. |

| Authors | Results |
|--------------------------------------|---|
| Clinch and Magliolo (1993) | Bank managers use discretionary cash flow transactions, such as sales of fixed assets, sales of credit card portfolios and early debt retirements, in order to affect reported income and their compensation. |
| Gaver, Gaver and Austin (1995) | When earnings before discretionary accruals are below the lower bound, managers select income-increasing discretionary accruals and vice versa, suggesting that managers try to smooth income around the bound necessary to earn a bonus. |
| Holthausen, Larcker and Sloan (1995) | Managers use discretionary accruals to manipulate earnings downwards when their bonuses are at their maximum but no manipulation is observed when earnings are below the minimum necessary to receive any bonus. Real investment decisions and the timing of asset sales are not influenced by the annual bonus compensation. |
| Guidry, Leone and Rock (1999) | Managers manipulate earnings with accruals and more strongly with the choice of inventory valuation method, particularly when the profit is in the MID portfolio relative to the UPP and LOW portfolios. |
| Keating, Zimmerman and Simon (1999) | Firms that make income-increasing depreciation method changes for all their assets have significantly lower sales, lower return on assets and higher leverage than firms that change methods for new assets only or firms that change estimates. This evidence supports earnings management to increase executive compensation. |
| Gao and Shrieves (2002) | Discretionary accruals are positively related to bonuses and the intensity of earnings management is conditional on whether pre-managed earnings are close to specified targets. |
| Shuto (2007) | Firm managers receiving no bonus adopt income-decreasing accruals and negative extraordinary items. For firms with bonus plans, discretionary accruals are used to smooth income and increase compensation. |

| Authors | Results |
|---|--|
| Dechow, Myers and Shakespeare (2010) | Securitization gains are treated as a regular component of earnings and managers use these gains in order to manage profits and earn a bonus |

Granted that accounting numbers may be manipulated for cash bonus purposes, several compensation experts have advocated the inclusion of stock options in compensation contracts (Rappaport, 1990).

The use of equity compensation is way to align executive and shareholder incentives by giving the executive an ownership stake in the firm (Jensen and Meckling, 1976). In a system of dispersed ownership, stock based compensation is probably the most important tool by which to align managerial interests with those of shareholders (Weber, 2006).

The considerable increase in the use of equity based compensation has resulted in substantial CEO equity holdings (Hall and Murphy, 2003). The growth in equity holdings makes executive wealth sensitive to stock price. The increased sensitivity of managers' wealth to stock prices creates strong incentives to manage earnings so as to maintain and increase stock values (Dechow and Skinner, 2000). Equity based compensation could motivate either income increasing earnings management or income smoothing. A risk-averse CEO for example will be inclined to sell his / her shares in the short term. Therefore, prior to an anticipated sale, a CEO is likely to make income increasing choices in order to increase the current stock price. Alternatively, a CEO may be motivated to smooth first, in order to minimize wealth variability, while maintaining the option to income increase and sell shares at favourable prices in the future. The studies presented below provide evidence that managers engage in earnings management in order to maximize stock based compensation.

Gao and Shrieves (2002) have documented that discretionary accruals were positively related to stock options and the intensity of earnings management was conditional on whether pre-managed earnings were close to specified targets.

Baker, Collins and Reitenga (2003) provide evidence that the grant/accruals relation was stronger only when post-earnings announcement grants occurred infrequently, and the options were a large part of the executive pay package. In contrast, there is no evidence that managers engaged in earnings management using accruals when the firm followed a predictable granting schedule. This result suggests that, managers behaved as if they believed that investors would discount earnings announcements before option grants if the firm followed a predictable schedule.

Cheng and Warfield (2005) have documented that corporate managers with high equity incentives sold more shares in subsequent periods, and therefore were more likely to report earnings that just met or exceeded analysts' forecasts and more frequently engaged in other forms of earnings management. As stock options increased the managers' equity ownership, they also increased their need to diversify the high risk associated with such ownership and this produced both more efforts to inflate earnings to prevent a stock price decline and increased sales by managers in advance of any earnings decline.

Bergstresser and Philippon (2006) also provide evidence that the use of discretionary accruals to manipulate reported earnings was more pronounced for firms

where the CEO's compensation was more closely tied to the value of stock options. The authors document that, during years of high accruals, CEO's exercised unusually large numbers of options and they sold large quantities of shares.

Ronen et al. (2006) found that, when outside directors' incentive packages included shares and options, they conspired with managers to engage in opportunistic earnings management.

The findings of Balachandran, Chalmers and Haman (2008) support the proposition that earnings management through the use of discretionary accruals is a mechanism used to 'drive up' share prices in order to increase the cash received from sales of share options.

Cullinan, Du and Wright (2008) compared a sample of US firms that misstated their revenue to a sample of non-misstatement firms. The authors found that companies whose independent directors did not receive stock options were less likely to misstate revenues. The results suggest that compensating outside directors with stock options may weaken their independent oversight.

Dechow, Myers and Shakespeare (2010) have also found evidence that CEO compensation in the form of stock options was sensitive to the timing of asset securitizations and the level of gains recorded on the income statement as a result of such transactions.

Table 2 on the next page provides a summary of the results of the empirical studies on stock based compensation and earnings management.

Table 2: Results of Empirical Studies on Stock Based Compensation and Earnings Management (in chronological order)

| Authors | Results |
|------------------------------------|---|
| Gao and Shrieves (2002) | Discretionary accruals are positively related to stock options and the intensity of earnings management depends on whether pre-managed earnings are close to specified targets. |
| Baker, Collins and Reitenga (2003) | The option grants and accruals relation is stronger only when post-earnings announcement grants occur infrequently and the options are a large part of the executive pay package. There is no evidence of earnings management using accruals when the firm follows a predictable granting schedule. |
| Cheng and Warfield (2004) | Managers with high equity incentives sell more shares in subsequent periods, and therefore are more likely to report earnings that just meet or exceed analysts' forecasts and more frequently engage in other forms of earnings management. |
| Bergstresser and Philippon (2006) | The use of discretionary accruals to manipulate reported earnings is more pronounced for firms where the CEO's compensation is more closely tied to the value of stocks and stock options. |
| Ronen, Tzur and Yaari (2006) | When outside directors receive stock options, they cooperate with managers to engage in opportunistic earnings management. |

| Authors | Results |
|---|--|
| Balachandran, Chalmers and Haman (2008) | Earnings management through the use of discretionary accruals is a mechanism used to 'drive up' share prices in order to increase the cash received from share options. |
| Cullinan, Du and Wright (2008) | Companies whose independent directors do not receive stock options are less likely to misstate revenues, suggesting that compensating outside directors with stock options may weaken their independent oversight. |
| Dechow, Myers and Shakespeare (2010) | CEO compensation in the form of stock options is sensitive to the timing of asset securitizations and the level of gains recorded on the income statement as a result of such transactions. |

After having considered how variable compensation (in the form of cash bonus or stock options) can create incentives for earnings management, the relationship between debt-holders and managers is addressed next.

2.7.1.2 Lending Contracts

A lending contract is an explicitly written contract between a firm and its lenders. The relationship between managers and lenders is also an agency relationship. Similar to shareholders, lenders wish to ensure that managers will make decisions that will protect the lenders' interests. When a party lends funds to another organization, the borrower may undertake activities that reduce the probability that the funds will be repaid i.e. pay excessive dividends or invest in very high risk projects (Deegan and Unerman, 2006, p. 237).

For this reason, lending contracts typically contain provisions that are based on observable accounting variables, such as a minimum level of debt-to-equity, interest coverage, working capital, and shareholders' equity. If such covenants are violated, the debt agreement may impose penalties, like constraints on dividends or additional borrowing (Scott, 2003, p. 275). Clearly, the prospect of covenant violation constrains management's actions in running the firm. Given that the covenant violation has a cost, the debt hypothesis of Positive Accounting Theory predicts that managers are expected to manage earnings in order to reduce the probability of debt covenant violations (Watts and Zimmerman, 1990). The following studies provide empirical evidence on the debt hypothesis and earnings management.

Haw, Jung and Lilien (1991) examined managerial motivation to increase profits in order to avoid debt covenant violations through the settlement of over-funded defined benefit pension plans. Firms that hold plan assets in excess of their defined pension benefit liability can engage in a settlement transaction and recognize this excess as a gain in current income. The evidence supports that settlement firms had more binding debt covenant constraints than the control firms and that they were closer to these constraints as evidenced by their leverage ratios. As a result they entered into settlement transactions in order to avoid debt covenant violations.

Sweeney (1994) compared a sample of U.S. manufacturing firms that had violated their debt covenants for the first time to a control sample of firms that did not have such violations. The evidence suggests that the defaulting firms made, on average, significantly more income-increasing accounting policy changes than the control sample firms, and that the impact on reported net income of these changes was significantly greater for the defaulting firms. Income increasing accounting changes included changes in pension plan assumptions, pension terminations and adoption of FIFO inventory method. The author also provides evidence that managers “timed” their first time adoption of new accounting requirements in order to manage earnings. When new accounting standards are issued there is typically a transition period (which could be a number of years) during which organizations can voluntarily implement a new accounting requirement. Sweeney has found that organizations that defaulted on their debt agreements tended to adopt income-increasing requirements early, and deferred the adoption of accounting methods that would lead to a reduction in reported earnings.

DeFond and Jiambalvo (1994) also found evidence of the use of discretionary accruals to increase reported income in the year prior to and, to a lesser extent, in the year of the covenant violation.

DeAngelo, DeAngelo and Skinner (1994) studied a sample of large firms that had three or more consecutive years of losses and reduced dividends. For twenty nine of these firms, the reduction in dividends was forced by debt covenant constraints. There is no evidence that these firms used accruals to manage earnings upward in years prior to the cut in dividends, relative to the remaining sample firms that did not face debt covenant constraints. Rather, all the sample firms exhibited large earnings reducing accruals extending for at least three years beyond the year of the dividend cut. The authors argue that probably these firms were trying to inform lenders, shareholders, unions, and others that the firms were facing up to its troubles, and to prepare the ground for subsequent contract renegotiations that frequently took place. It thus seems that when troubles are serious, earnings management becomes part of the firm's overall strategy for survival.

Dechow, Sloan, and Sweeney (1996) compared a sample of firms that had, on average, significantly higher levels of leverage and significantly more debt covenant violations than a control sample. The authors found that their highly leveraged firms were heavy users of earnings management and most of the times they engaged in such practices in order to avoid violation of debt covenant constraints.

Miller and Skinner (1998) investigated whether managers use their discretion when setting the tax valuation allowance account in order to avoid violating debt covenants. Accounting for income tax requires that, if based on available evidence it is more than likely that the deferred tax asset will not be realized, then firms must reduce this asset through the creation of a valuation allowance account. The amount needed to bring the allowance account to its desired balance is taken to the income statement and therefore affects profits. There is little evidence that managers used the valuation allowance in order to avoid violation of lending contract provisions. The authors argue that, the results of the study might not be powerful because their primary interest was to examine whether managers comply with the provisions of SFAS No. 109: "Accounting for Income Tax"; for this reason the firms in the sample were chosen based on the magnitude of their deferred tax assets rather than on their leverage or performance. Therefore, managers of these firms probably did not have incentives to manage reported profits in order to avoid debt covenant violation.

Dichev and Skinner (2002) examined firms that had bank loans with either a minimum current ratio covenant or a minimum net worth covenant. The results provide strong evidence that managers did engage in earnings management to avoid an initial debt covenant violation. The unusually large number of firms that just met or beat the covenant threshold shows that debt covenants were relatively tight and that firms that violated the covenants were not financially distressed. This indicates that private lenders used violations as a screening device, and frequently waived violations or reset covenants without imposing serious consequences on borrowing firms. As a result, the

authors also found evidence that the incentive to manage earnings after the first violation weakened.

Jaggi and Lee (2002) provide results which suggest that, managers of less financially distressed firms used income-increasing discretionary accruals in order to obtain waivers for debt covenant violations. For more financially distressed firms, managers used income-decreasing discretionary accruals where a debt restructuring or renegotiation took place. These findings thus provide support that the choice of income-increasing or decreasing discretionary accruals is influenced by the severity of financial distress.

Beatty and Weber (2003) argue that, performance pricing gives managers an incentive to make income increasing accounting method changes. This is because, under performance pricing, the interest rate charged by a bank does not remain fixed over the length of the loan, but varies inversely with financial performance. Beatty and Weber also argue that, debt contracts often prohibit borrowers from making accounting method changes to affect contract calculations. As predicted, the evidence shows that 75 out of the 125 borrowing corporations had at least one contract that allowed accounting method changes to affect contract calculations. The results reveal that borrowers that changed their accounting methods were more likely to make income increasing accounting changes if their debt contracts included accounting-based performance pricing.

Jung, Soderstrom and Yang (2013) hypothesized that, since credit rating agencies consider earnings volatility as an indicator of credit risk, firms would have an incentive to smooth earnings via the use of accruals. The results provide evidence that, earnings smoothing activity indeed increased the likelihood of a subsequent rating upgrade. The evidence suggests that bond issuers engaged in earnings management in an attempt to impact the cost of future borrowing.

Alissa, Bonsall, Koharki and Penn Jr. (2013) examined whether firms that deviated from an empirically modeled (“expected”) credit rating engaged in earnings management activities, measured by abnormal accruals and real activities. The authors provide evidence that firms used income increasing (decreasing) earnings management activities when they were below (above) their expected ratings. The evidence suggests that firms considered their credit ratings as a signal of overall quality, which helped to avoid rating-based covenants or increased scrutiny from market participants.

In contrast to the debt hypothesis being an incentive for earnings management to avoid debt covenant violations, there is an argument that lending can be a motivation for accounting conservatism. In the debt contracting process, lenders have an informational disadvantage. Assuming opportunism on behalf of borrowers, lenders will either refuse to lend or require a high rate of return. Accounting conservatism is a mechanism that allows borrowers to secure funding at a lower cost.

Choi (2007) hypothesized that banks prefer accounting conservatism to secure their loans and reduce credit risk. As a consequence, banks will provide borrowers with incentives to maintain a high level of income statement conservatism. The results are consistent with this prediction. The evidence showed that the timeliness of economic loss recognition was increasing with a firm's bank dependence.

Zhang (2008) provides evidence which suggests that more conservative borrowers used more asset write downs and restructuring charges. As a result these borrowers were more likely to violate debt covenants but the benefit was that lenders charged lower interest rates to conservative borrowers. The evidence suggests that conservatism benefits lenders ex post through the timely signaling of default risk and benefits borrowers ex ante through lower interest rates.

Beatty, Weber and Yu (2008) examined the relation between conservatism in financial reports and conservative adjustments made to accounting numbers used in debt covenants. The authors found that, in certain settings, accounting conservatism and conservative adjustments to debt covenants were substitutes whereas in other settings they were complementary. More specifically, for the portion of financial reporting conservatism associated with the litigation, tax, and equity shareholders' demands, the evidence suggests that higher reporting conservatism was a substitute for conservative covenant modifications. Therefore, in the presence of additional demands for conservatism, contracting over GAAP is relatively less costly than making covenant adjustments. The second finding was that, lenders used conservative accounting and

conservative debt covenant modifications as complements. This suggests that there are limitations on the extent to which a borrower's financial reports can be prepared conservatively and there are costs associated with designing covenants that achieve the same effects as financial reporting conservatism. These constraints made it optimal to use financial reporting conservatism together with contractual modifications to meet lenders' demands.

Tan (2013) found that firms' financial reporting became more conservative after covenant violations. The conservatism effect was more pronounced where creditors possessed greater bargaining power and for firms with more operating volatility. Conservatism was also observed for firms where the creditors put chief restructuring officers in place. The evidence suggests that more scrutiny by lenders leads to accounting conservatism.

Table 3 on the next page provides a summary of the results of the empirical studies on the debt hypothesis and earnings management.

Table 3: Results of Empirical Studies on the Debt Hypothesis and Earnings Management (in chronological order)

| Authors | Results |
|---------------------------------------|---|
| Haw, Jung and Lilien (1991) | Firms that are closer to restrictive debt covenant constraints use settlement gains of over-funded defined benefit pension plans in order to avoid debt covenant violation. |
| Sweeney (1994) | Firms that violate their debt covenants make significantly more voluntary income-increasing accounting policy changes, such as changes in pension plan assumptions, pension terminations and adoption of FIFO inventory valuation method. Organizations that default on their debt agreements tend to adopt income-increasing new accounting standards early and defer the adoption of accounting methods that lead to a reduction in reported profits. |
| DeFond and Jambalvo (1994) | Firms use discretionary accruals to increase reported income in the year prior to and to a lesser extent in the year of the covenant violation. |
| DeAngelo, DeAngelo and Skinner (1994) | For firms with a dividend cut forced by binding debt covenant constraints, there is no evidence that accruals are used to manage earnings upward in years prior to the cut in dividends, relative to firms that did not face such debt covenant constraints. The accruals are income decreasing suggesting that when troubles are serious earnings management becomes part of the manager's strategy for survival. |
| Dechow, Sloan, and Sweeney (1996) | Highly leveraged firms are heavy users of earnings management and most of the times they engage in such practices in order to avoid violation of debt covenant constraints. |

| Authors | Results |
|-----------------------------|--|
| Miller and Skinner (1998) | There is little evidence that managers of sample firms use the deferred tax asset valuation allowance in order to avoid violation of lending contract provisions. |
| Dichev and Skinner (2002) | There is strong evidence that managers engage in earnings management to avoid an initial debt covenant violation. Lenders set tight debt covenants and use violations as a screening device, and frequently waive violations or reset covenants without imposing serious consequences on borrowing firms. As a result, there is evidence that the incentive to manage earnings after the first violation weakens. |
| Jaggi and Lee (2002) | Managers of less financially distressed firms use income-increasing discretionary accruals in order to obtain waivers for debt covenant violations. For more financially distressed firms, managers use income-decreasing discretionary accruals where waivers are denied and a debt restructuring or renegotiation takes place. |
| Beatty and Weber (2003) | Borrowers that change their accounting methods are more likely to make income increasing accounting changes if their bank loan contracts include accounting-based performance pricing. |
| Choi (2007) | Banks prefer accounting conservatism to secure their loans and reduce credit risk. The timeliness of economic loss recognition is increasing with a firm's bank dependence. |
| Beatty, Weber and Yu (2008) | For the portion of financial reporting conservatism associated with litigation, tax, and equity shareholders' demands, higher reporting conservatism is a substitute for conservative covenant modifications. In other settings, lenders use conservative accounting and conservative debt covenant modifications as complements. There are limitations on the extent to which a borrower's financial reports can be prepared conservatively and these constraints make it optimal to use financial reporting conservatism together with contractual modifications to meet lenders' demands. |

| Authors | Results |
|--|---|
| Zhang (2008) | More conservative borrowers use more asset write downs and restructuring charges and, as a result are more likely to violate debt covenants. Conservatism benefits lenders ex post through the timely signalling of default risk and benefits borrowers ex ante through lower interest rates. |
| Jung, Trom and Yang (2013) | Earnings smoothing activity increases the likelihood of a subsequent credit rating upgrade. Bond issuers engage in earnings management in an attempt to change the perception of credit rating agencies. |
| Alissa, Bonsall, Koharki and Penn Jr. (2013) | Firms are able to move toward expected credit ratings through the use of directional earnings management. Firms consider their credit ratings as a signal of overall quality which helps to avoid rating-based covenants or increased scrutiny from market participants. |
| Tan (2013) | Firms' financial reporting becomes more conservative after covenant violations. The conservatism effect is more pronounced where creditors possess greater bargaining power and where creditors put chief restructuring officers in place. |

After having considered how lending can create incentives or disincentives for earnings management, the relationship between stakeholders and managers is addressed next.

2.7.1.3 Implicit Contracts

Implicit contracts represent implied commitments that a firm will fulfil its obligations towards its stakeholders (Bowen, DuCharme and Schores, 1995). A major role of management is to assess the importance of meeting stakeholder demands in order to achieve the strategic objectives of the firm (Freeman, 1984, cited in Deegan and Unerman, p. 290). An organisation is successful if it satisfies the demands of the various stakeholder groups, particularly those interest groups upon which the organisation depends. The more critical the stakeholder resources are to the continued viability and success of the organization, the greater the expectation that stakeholder demands will be addressed (Ullman, 1985).

Under the transactions cost theory, firms that report higher profits can generally secure more favourable terms for their transactions (Bowen et al., 1995). Customers for example may be willing to pay a higher price for goods since they may expect that the firm will be more likely to honour warranty and service commitments. Suppliers offer better terms as they trust that the firm will make payments on time and probably continue to make larger purchases in the future. Therefore, implicit contracts create incentives for earnings management. The studies presented next include tests on this hypothesis.

The evidence provided by Bowen DuCharme and Schores (1995) suggests that, the need to influence a firm's perceived reputation by customers, suppliers and short-term creditors explained accounting method choice. Almost half of the firms in the sample chose the FIFO inventory valuation method (income increasing). Similarly 68.7% of the sample firms used the income-increasing depreciation method (straight-line).

Burgstahler and Dichev (1997) also provide results which indicate that, firms frequently managed earnings decreases and losses away so as to avoid higher transactions costs with stakeholders. The evidence suggests that firms with small earnings exercised discretion to report earnings increases and firms with slightly negative earnings exercised discretion to report positive earnings.

Matsumoto (2002) documents evidence which supports that accruals were used to manage earnings upwards. The results suggest that customers and suppliers were users of a firm's accounting information and when judging the firm's performance, these stakeholders were more likely to react to earnings announcements rather than to analysts' forecasts.

Raman and Shahrur (2008) argue that, when a firm has relationship specific investments with suppliers or customers, the perception of stakeholders about the business prospects affects their decision to undertake such investments. This is because, when a firm is profitable, the size of a future transaction is likely to be larger

and the expected losses due to liquidation or financial distress are lower when dealing with a profitable firm. Overall the evidence suggests that earnings were managed opportunistically to influence the perception of suppliers and customers about the firm's prospects. However, the results showed that earnings management adversely affected the duration of customer-supplier relationship.

Hui, Klasa and Yeung (2012) hypothesized that managers will make more conservative choices if suppliers or customers have bargaining advantages over the firm, such that it allows them to dictate the terms of trade or whether trade occurs at all. Bargaining advantage was measured by size i.e. a customer accounts for a large fraction of a firm's sales or a supplier sells to a firm a large fraction of its supplies. The authors found evidence that when a firm's suppliers or customers had greater bargaining power, firms recognized losses more quickly.

Similarly, Costello (2013) argues that, suppliers and customers may expect managerial opportunism. Therefore, both parties have incentives to design contracts which include covenants that could limit such behaviour. The author provides evidence that when long-term contracts facilitated the exchange of specific assets and there was high information asymmetry, the contract included financial covenant restrictions to limit opportunistic behaviour. Finally, the author shows that, where private firms' financial statements were considered to be less reliable, buyers and suppliers were less likely to use financial covenants and more likely to use alternative contractual tools.

Dou, Hope and Thomas (2013) argue that in countries where enforceability of explicit contracts is weak, firms will have an incentive to smooth income and thereby signal their willingness to fulfil implicit claims and maintain long term relationships. The authors found that, firms which operated in countries with weak contract enforceability and with more relationship specific investments, smoothed income. A further breakdown of income smoothing into its “signalling” and “opportunistic” components showed that the results were driven by the informational component of income smoothing.

Table 4 on the next page provides a summary of the results of the empirical studies on implicit contracts and earnings management.

Table 4: Results of Empirical Studies on Implicit Contracts and Earnings Management (in chronological order)

| Authors | Results |
|--|---|
| Bowen DuCharme and Schores (1995) | Implicit claims variables, which are used as proxies for customers, suppliers and short-term creditors, explain accounting method choice. Firms use FIFO inventory valuation method (income increasing) and straight line method of depreciation (income-increasing) in order to manage earnings and affect the perception of stakeholders. |
| Burgstahler and Dichev (1997) | Firms with small earnings exercise discretion to report earnings increases. Firms with slightly negative earnings exercise discretion to report positive earnings. |
| Matsumoto (2002) | Customers and suppliers use a firm's accounting information in order to judge its performance. Hence firms manage earnings with discretionary accruals in order to affect the perception of these stakeholders. |
| Raman and Shahrur (2008) | Earnings are managed opportunistically to influence the perception of suppliers and customers about the firm's prospects. Earnings management adversely affects the duration of customer-supplier relationship. |
| Hui, Klasa and Yeung (2012) | Managers make more conservative choices when suppliers or customers have bargaining advantages over the firm, such that it allows them to dictate the terms of trade or whether trade occurs at all. When a firm's suppliers or customers have greater bargaining power, the firm recognizes losses more quickly. |
| Dou, Hope and Thomas (2013) | In countries where enforceability of explicit contracts is weak, firms signal their willingness to fulfil implicit claims and maintain long term relationships through income smoothing. |

| Authors | Results |
|-----------------|---|
| Costello (2013) | Since suppliers and customers may expect opportunism on behalf of managers, long-term contracts are used that include financial covenant restrictions, which limit opportunistic behaviour. Where private firms' financial statements are considered to be less reliable, buyers and suppliers are less likely to use financial covenants and more likely to use alternative contractual tools. |

After having considered how implicit contracts can create incentives or disincentives for earnings management, the political cost hypothesis is addressed next.

2.7.2 Political Motivations

Firms, particularly larger ones, are sometimes under scrutiny by various groups, such as government, employees, consumers, environmental lobby groups and so on (Watts and Zimmerman, 1978). Large firms are considered to be politically visible because they have activities that affect a large number of people and firm size is often used as an indication of market power.

In order to reduce the possibility of adverse political attention and any associated costs (i.e. increased taxes or increased wage claims), the political cost hypothesis assumes that politically sensitive firms will adopt accounting methods that lead to a reduction in reported profits (Watts and Zimmerman, 1990).

Watts and Zimmerman (1978) attempted to explain the lobbying positions taken by managers in relation to the FASB's 1974 Discussion Memorandum on general price level adjustments. General price level accounting makes adjustments to historical cost profits by considering the effects of changing prices. In times of inflation, this typically has the effect of decreasing income. The results of the study revealed that, larger firms (which were deemed to be subject to higher political scrutiny), tended to support the Discussion Memorandum. By presenting lower adjusted profits, these firms would avoid political attention and there would be less likelihood that parties would attempt to

transfer wealth away from the firm (perhaps in the form of increased taxes, higher wages, etc.).

Hagerman and Zmijewski (1979), found that firm size, measured by volume of sales, total assets or market value of equity was positively associated with management's choice of income decreasing accounting methods.

Liberty and Zimmerman (1986) report evidence that managers adopted income decreasing accounting methods when involved in on-going labour negotiations to combat demands of unionized employees for higher wages and benefits.

Wong (1988) found that New Zealand companies that had adopted current cost accounting, had higher effective tax rates and larger market concentration ratios, both variables being suggestive of political visibility.

Sutton (1988) investigated lobbying submissions made in the UK in relation to a proposed accounting standard that recommended the disclosure of current cost accounting information. Sutton found support that, organizations which considered they would benefit from the requirement tended to support it. Those expected to benefit were capital intensive firms because, the adoption of current cost accounting would lead to decreased profits (due to higher depreciation). Politically sensitive firms also supported the disclosures, as it would allow them to show reduced profits.

Jones (1991) considered the behaviour of US firms that were the subject to government import-related investigations. These government investigations sought to determine whether the domestic firms were under threat from foreign competition. Where this threat was deemed to be unfair, the government would grant relief by devices such as tariff protection. In making its decision the government relied upon a number of factors, including economic measures such as profits and sales. The results of the study show that in the year of the investigations the sample companies made accounting choices that led to a decrease in profits. Such behaviour was not evidenced in the year before or the year after the government investigation.

Cahan (1992) found that a sample of firms investigated for monopolistic practices by the U.S. Department of Justice and the Federal Trade Commission used more income-decreasing accruals during investigation years relative to other years in the sample period.

Bowen DuCharme and Schores (1995) document findings which are consistent with managers adopting income decreasing accounting methods when involved in on-going labour negotiations to combat demands of unionized employees for higher wages and benefits.

Bens and Johnston (2009) assumed that restructurings are a means of earnings management , because restructurings may be ignored by investors as they are non-transitory and they can help increase future income. Concern about excessive

restructurings, lead the FASB to issue a new regulation, whereby more specific accounting guidance was given about these special charges as opposed to few codified rules that existed before. The results indicate that, the new accounting rule combined with more SEC monitoring, limited excess restructuring charges by an average of 2.8% of assets.

Chaney, Faccio and Parsley (2011) provide evidence that firms with political connections systematically reported accounting information which was of poor quality, as opposed to firms that were not politically connected. Poor accounting quality was measured by the volatility of accounting accruals; politically connected firms were those firms that had a large shareholder, or CEO or chairman being sitting in the parliament or being a minister or having tight relations to a political party. The hypothesis was that, since politically connected firms have protection arising from litigation or higher cost of capital, they will devote less time and care to the quality of accounting information. The authors provide evidence that lower quality reported earnings was associated with a lower cost of debt only for the politically connected firms in the sample. That is, companies that had political connections apparently faced little negative consequences for their lower quality disclosures.

He, Wong and Young (2012) investigated Chinese firms and their incentive to manage earnings in order to keep their listing. In China, public firms that report losses for three consecutive years lose their listing status. The authors found that when firms reported unrealized losses on their trading securities, there were more likely to sell

available for sale securities at a gain in order to offset the negative impact. This result indicates that firms used earnings management in order to avoid regulatory violations. Finally, the study provides evidence that fair value induced earnings management activities were more pronounced in firms with weak corporate governance and with politically connected managers.

Bova (2013) provides evidence that unionized firms were more likely to miss analysts' forecasts as compared to a non-unionized control group. The likelihood of missing the forecasts was increasing with the ratio of unionized-to-total employees. These results are consistent with the prediction that firms will prefer to project a negative outlook as the union's negotiation leverage increases.

Cohen, Dey and Lys (2013) also provide evidence that regulatory intervention can limit earnings management practices for opportunistic reasons. They document that the passage of the Sarbanes-Oxley Act in 2002 has led to a decline in incentive based compensation and risky investments. This result suggests that CEO's and directors turned down more risky investments, even though they may have been more profitable, because of the expanded personal liability after the passage of the Act.

Table 5 on the next page provides a summary of the results of the empirical studies on the political cost hypothesis and earnings management.

Table 5: Results of Empirical Studies on the Political Cost Hypothesis and Earnings Management (in chronological order)

| Authors | Results |
|-----------------------------------|--|
| Watts and Zimmerman (1978) | Larger firms tend to support the Discussion Memorandum on general price level adjustments. By presenting lower adjusted profits, these firms will attract less political attention, in the form of increased taxes, less tariff protection, higher wages, etc. |
| Hagerman and Zmijewski (1979) | Firm size is positively associated with management's choice of income decreasing accounting methods. |
| Liberty and Zimmerman (1986) | Managers adopt income decreasing accounting methods when involved in on-going labour negotiations to combat demands of unionized employees for higher wages and benefits. |
| Wong (1988) | Companies that adopt current cost accounting also have higher effective tax rates and larger market concentration ratios, both variables being suggestive of political visibility. |
| Sutton (1988) | Politically sensitive companies are more likely to lobby in favour of current cost accounting, which leads to reporting decreased profits. |
| Jones (1991) | Firms subject to government import-related investigations select income decreasing accounting strategies. Such behaviour is not evidenced in the year before or the year after the government investigation. |
| Cahan (1992) | Firms investigated for monopolistic practices use more income-decreasing accruals during investigation years relative to other years in the sample period. |
| Bowen DuCharme and Schores (1995) | Firms use income decreasing accounting methods when involved in on-going labour negotiations to combat demands of unionized employees for higher wages and benefits. |

| Authors | Results |
|-----------------------------------|--|
| Bens and Johnston (2009) | The use of excessive restructurings as a means for earnings management has lead the FASB to interfere with a change in the accounting regulation, thus limiting excess restructuring charges. |
| Chaney, Faccio and Parsley (2011) | Firms with political connections systematically report accounting information which is of poor quality. Politically connected firms have protection arising from litigation or higher cost of capital. |
| Wong and Young (2012) | Firms that report an unrealized loss on trading securities are more likely to sell available for sale securities at a gain in order to offset the negative impact and to avoid regulatory violations. |
| Bova (2013) | Firms will prefer to project a negative outlook as the union's negotiation leverage increases. |
| Cohen, Dey and Lys (2013) | CEO's and directors turn down more risky investments, even though they may be more profitable, because of the expanded the personal liability that they have after the passage of the SOX Act. |

Unlike non-financial firms, under the political cost hypothesis, bank managers will be motivated to manage earnings upwards because banking institutions face regulatory monitoring that is explicitly tied to accounting numbers.

The maintenance of a minimum capital adequacy ratio became a requirement for banks in the United States in 1981 when the Federal Reserve and the Office of the Comptroller adopted capital adequacy ratio definitions and guidelines (Moyer, 1990). The regulations applied to individual banks and bank holding companies with over \$150 million in net assets. Depending on the size of their net assets, banks were classified into three categories: multinational, regional and community. Over the period of 1981 – 1985 the capital adequacy ratio minimum was different for each category. As of 1985 the requirements for all banks became equal (Moyer, 1990).

In 1985, the US Federal Reserve officially announced minimum risk-based capital standards whereby banks were requested to maintain a minimum capital adequacy ratio, which was broadly defined as equity divided by total risk weighted assets. During the years 1985-1989 (the old capital regime), regulators required banks to hold primary capital and total capital equal to 5.5% and 6% of total assets respectively¹. Although the minimum primary and total capital ratio was 5.5% and 6.0% respectively, the Federal Reserve regulations indicated that banks should generally operate above the minimums in order to avoid supervisory action.

¹ Primary capital included book value of equity, loan loss reserves, perpetual preferred stock and mandatory convertible debt. Total capital was defined as primary capital plus limited life preferred stock and subordinated debt.

In January 1987, the Central Bank of England issued a joint statement of intent to establish minimum risk based capital requirements. In 1988 when the Basel Accord was signed, the G-10 countries implemented the capital requirements that are now been applied by countries worldwide. The major rationale behind this proposal was that the proposed standards would be more closely related to failure risks and provide convergence between supervisory policies on the adequacy of capital among countries with major banking centres. From the viewpoint of regulators, capital serves as a cushion to absorb unexpected operating losses. Great variability of earnings means that interest and non-interest expenses are more likely to exceed bank revenues and that capital will be used to absorb losses. Furthermore, if actual loan losses exceed the loan loss reserves the excess is charged against capital. According to Basel Accord I, banks must maintain a capital ratio of at least 8%.

The capital adequacy ratio equals regulatory capital divided by risk weighted assets and off balance sheet items, with asset weights specified by the capital standards. Regulatory capital is divided into Tier I and Tier II capital. Tier I capital must be equal to at least 4%².

To ensure satisfaction of the minimum capital standards, regulators impose costs to a non-complying bank that are increasingly restrictive as the institution's capital

² Tier I capital includes ordinary share capital, retained earnings, perpetual preferred stock, and minority interest in subsidiaries less goodwill and intangible assets. Tier II capital is the sum of loan loss reserves (up to 1.25% of risk-weighted assets), perpetual preferred stock not included in Tier I capital, perpetual debt, mandatory convertible debt securities, subordinate debt and intermediate preferred stock. The total deductions from Tier I and Tier II capital include investments in unconsolidated subsidiaries, reciprocal holdings of other depositories' capital securities and other deductions as specified by supervisory agents.

declines (Moyer, 1990). A non-complying bank may be: asked to submit plans regarding how capital will be increased; be examined more often; be denied a merger or the opening of new branches and expansion of its services; be required to terminate risky activities; be required to replace directors or officers; or be imposed dividend restrictions. Finally, the regulators can close the bank.

In order to avoid costly penalties that result from failing to meet the minimum capital requirements bank managers will be motivated to manage their capital adequacy ratio. The ratio can be managed if a bank changes the numerator, the denominator or both. For example, banks may pursue capital strengthening through the management of risk weighted assets or the increase in share capital. But since retained earnings are part of the numerator, the capital base may also increase with profitability.

Another element of the capital base, which is also part of calculating accounting profits, is the loan loss reserves. In the old capital regime, if managers increased their loan loss provisions, the profits would go down by $1 - \text{tax rate}$, whereas the capital base would increase by the amount of the loan loss reserves which was included in primary capital. The loan loss reserves could also be increased if loan write off's were understated. The net effect would be an increase of the capital base and hence an increase in the capital adequacy ratio. Therefore, political costs, in the form of regulatory intervention, provide bank managers with incentives to maximize income, overstate loan loss provisions and understate loan write off's. The following studies

provide empirical evidence on the capital management hypothesis and earnings management.

Hill and Ingram (1989) document that, in order to provide relief to financially troubled Savings and Loans, the Federal Home Loan Bank Board allowed the adoption of regulatory accounting principles (RAP) instead of the GAAP in 1981. Under the RAP, losses from the sales of loans could be amortized over the remaining expected life of the loans sold. In addition, the minimum net worth requirement was reduced to 3%. The authors found that, Savings and Loans close to their regulatory minimums and with larger benefit from selling low yield loans adopted the RAP. Finally, Savings and Loans that chose the RAP did not face major auditor resistance, suggesting that auditors were also concerned about the existence of their clients.

Moyer (1990) found that, securities gains were used for capital management in 1981 and 1985 only. A possible explanation for this finding is that regulators first adopted capital guidelines in 1981 and they increased the minimum guidelines for regional and multinational banks to equal those of the community banks in 1985. Therefore, if before reporting for 1981 and for 1985, other policies were not easy to change at the very last minute, the use of the securities gains was relatively stronger. The author also found that loan loss provisions were used to raise the capital adequacy ratio whereas loan charge-offs were adjusted to reflect the quality of the loan portfolio rather than motivated by regulatory costs. These results were not stronger for 1981 and

1985 when managers were expected to use loan charge-offs more in order to manage capital.

Scholes, Wilson and Wolfson (1990) provide evidence that realized securities gains were high when regulatory capital was low. The coefficient on the loan loss provision showed that when this item was high, securities gains were high to offset the effect of the bad debt on net income, which is consistent with income smoothing.

Haw, Jung and Lilien (1991) examined managerial motivation to increase profits in order to increase regulatory capital through the settlement of over-funded defined benefit pension plans. Under the GAAP, firms that hold plan assets in excess of their defined pension benefit liability can engage in a settlement transaction and recognize this excess as a gain in current income. The results indicate that settlement gains were used as substitutes for securities gains in order to smooth the negative effect of loan loss provisions on earnings. The loan loss provisions were higher for settlement as compared to non-settlement banks.

Warfield and Linsmeier (1992) predicted that when regulatory capital and income before securities transactions is relatively high (low), the reported level of securities gains will be relatively low (high). They tested their hypothesis using bank quarterly earnings. The hypothesis was supported for the last quarter only. The authors argue that these results were expected because banks were more likely to use loan loss provisions to smooth earnings throughout the year and use securities only for

marginal adjustments near the year-end. The loan loss provision is probably a preferred smoothing device because it is typically much larger than securities gains and losses and it includes a large discretionary component. Furthermore a change in the loan loss provision has no direct effect on future cash flows, whereas a sale of investment securities may result in lost future investment returns.

Clinch and Magliolo (1993) provide evidence which suggests that, cash-flow discretionary earnings were stronger for firms that had more non-performing loans, which were used as a proxy for anticipated low capital levels. This suggests that banks with low capital instructed their managers to increase net profits through management of discretionary earnings components.

Collins, Schakelford and Wahlen (1995) examined banks' decisions to manage a combination of capital raising options. They found that loan loss provisions were not used to smooth earnings. When non-discretionary earnings were low, loan loss provisions were low, consistent with managers smoothing earnings over time. For growth banks, the strongest relation between capital ratios and any other capital raising option was common stock. Preferred stock issues were greater for banks with low regulatory capital. The results also showed that banks in need of capital, reported lower loan charge-offs, consistent with its increasing effect on the capital ratio formula. Financially distressed banks reduced their dividend payments when their capital ratio was low. The authors argue that if financial distress was generated from large credit losses this would result in high loan charge-offs and consequently capital reduction.

Financial distress therefore affected bank's cost of capital and its ability to issue new securities. Consequently, an alternative mechanism to increase regulatory capital was to reduce dividends.

Bernard, Merton and Palepu (1995) found that low capitalised Danish banks actually recorded more loan loss provisions than medium or high capitalised banks, consistent with the hypothesis that loan loss provisions are manipulated to avoid capital violations. For the six largest banks in the sample, the evidence was that loan loss provisions were managed to smooth earnings. Given the subjective estimates of loan loss provisions and the fact that adjustments in fair value of investments were determined by gains or losses on publicly traded bonds, a likely explanation is that loan loss provisions were managed by banks to off-set the impact on income and regulatory capital.

Beatty, Chamberlain and Magliolo (1995) examined the incentive to meet the minimum regulatory capital and earnings goals by exercising simultaneous discretion over loan loss provisions, loan charge-off's, pension settlement transactions, gains and losses from physical assets or securities and issuance of new securities. The authors found that, loan charge-offs, loan loss provisions and securities gains and losses were used interchangeably to manage capital. When charge-offs were high (regulatory capital decreases) the changes in external funds were high (regulatory capital increases) and vice versa. Firms chose to realize smaller miscellaneous gains (earnings and regulatory capital decrease) in periods of low charge-offs (regulatory capital increases). When the

amount of equity, capital notes and preferred stock issuance were high (regulatory capital increases), then miscellaneous gains and loan loss provisions were low (regulatory capital decreases). The results indicate that, pension settlement gains and losses were used to offset the negative effect of the loan loss provision on earnings.

Kim and Kross (1998) investigated whether the change in capital standards caused a change in estimates of the loan loss provisions and loan write-offs. Prior to 1989, banks could increase regulatory capital by increasing loan loss provisions and by decreasing loan write-offs. After 1989 (when the Basel Accord was signed), the loan loss reserves are included in the regulatory capital only up to 1.25% of risk-weighted assets. Thus, the new regulations reduce the incentive to exercise discretion over loan loss provisions and write-off's for purposes of capital management. It was found that, for low capital banks, loan loss provisions were higher before the change in regulations than after. As predicted, the change in the capital standards had no apparent effect on the loan loss provision of banks with high capital ratios. The results of the study also indicated that managers of both low and high capital banks increased write-offs under the new capital standards, but this was attributed to the recession of 1988-89. Even so, the results are consistent with the hypothesis that managers of low capital banks increased write-offs under the new capital standards.

Ahmed, Takeda, and Shawn (1998) also found that, in the new capital regime the negative relation between loan loss provisions and capital was significantly diminished, which is consistent with the reduction in the capital management incentives. This

relationship was also less negative for banks that had exceeded the 1.25% limit in loan loss reserves.

Kato, Kunimura and Yoshida (2001) investigated the effect that the Dividend Guideline had on accounting choices of Japanese banks. Prior to 1992, banks in Japan were required to a dividend payment of 40% of their current net income. To keep the dividend ratio within the range required, bank managers could choose either to manage earnings upwards or reduce dividends. Reducing dividends would not be a preferred choice because this would probably be interpreted as a sign of financial difficulties. Therefore the dividend guideline, as a form of capital regulation, provided a motivation for earnings management. In Japan bank managers could not exercise discretion over write-off's and loan loss provisions because these items should be recorded in accordance with the tax law. Hence, the authors examined the use of other accruals and securities gains and losses to manage earnings. Overall, the empirical findings indicate that accruals and securities gains and losses were used to manage earnings upwards in order to meet the Dividend Guideline limit.

Ramesh and Revsine (2001) examined banks' treatment of accounting for other postretirement benefits. According to the relevant accounting standard, firms are allowed to recognize other post-employment benefit liabilities at once or amortize them over future years. The authors hypothesized that poorly capitalized banks would choose the amortization method. The results showed that almost 70% of the banks in the sample chose the amortization method in order to avoid a decrease in regulatory

capital.

Beck and Narayanamoorthy (2013) investigated the impact of a new regulation issued by the Securities and Exchange Commission in 2001, because officials were concerned that some banks were using loan loss provisions to smooth income over time. The authors found that strong and profitable banks used loan write offs more as a basis for making loss predictions. Thus understatement of the reserve account was constrained. This evidence suggests that government intervention can influence earnings management practices so that accounting quality is improved. However, for weaker and less profitable banks the informativeness of the reserve account declined. This result suggests that, since the new regulation does not show any preference for the basis of making loan reserve estimates, it did not constrain the ability of less profitable banks to manage earnings by delaying loss provisioning in order to increase their regulatory capital base.

Table 6 on the next page provides a summary of the results of the empirical studies on the political cost hypothesis and banks' earnings management.

Table 6: Results of Empirical Studies on the Political Cost Hypothesis and Banks' Earnings Management (in chronological order)

| Authors | Results |
|--|---|
| Hill and Ingram (1989) | Financially troubled Savings and Loans choose to use regulatory accounting principles than GAAP. Under the regulatory principles any losses from the sale of low yield loans can be amortized over the average remaining life of the loans sold and the minimum net worth requirement of 3% can be met. |
| Moyer (1990) | Securities gains are used for capital management only when other policies are not easy to change at the very last minute. Loan loss provisions are used to raise the capital adequacy ratio but loan charge-offs reflect the quality of the loan portfolio. |
| Scholes, Wilson and Wolfson (1990) | Realized securities gains are high when regulatory capital is low. When the loan loss provision is high, securities gains are high to offset the effect of the bad debt on net income. |
| Haw, Jung and Lilien (1991) | Settlement gains of over-funded defined benefit pension plans are substitutes of securities gains, and are used to offset the negative income effect of loan loss provisions. |
| Warfield and Linsmeier (1992) | Banks use loan loss provisions to smooth earnings throughout the fiscal year and use securities gains only for adjustments near the fiscal year-end. |
| Clinch and Magliolo (1993) | Banks with more non-performing loans, a proxy for anticipated low capital levels have more cash-flow discretionary earnings. |
| Collins, Schakelford and Wahlen (1995) | Loan loss provisions are used to smooth earnings. For growth banks, the strongest capital raising option is common stock. |

| Authors | Results |
|---|--|
| Collins, Schakelford and Wahlen (1995) | Preferred stock issues are greater for banks with low regulatory capital. Banks in need of capital report lower loan charge-offs. Financially distressed banks reduce their dividend payments when their capital ratio is low. |
| Bernard, Merton and Palepu (1995) | Low capitalised Danish banks use loan loss provisions more than medium or high capitalised banks in order to avoid capital violations. For the six largest banks in the sample, loan loss provisions are used to offset the negative impact on income and regulatory capital caused by adjustments in fair value of publicly traded bonds. |
| Beatty, Chamberlain and Magliolo (1995) | When loan charge-offs are high (regulatory capital decreases) the changes in external funds are high (regulatory capital increases) and vice versa. Firms chose to realize smaller miscellaneous gains (regulatory capital decrease) in periods of low loan charge-offs (regulatory capital increases). When equity issues are high (regulatory capital increases), then miscellaneous gains and loan loss provisions are low (regulatory capital decreases). Pension settlement gains and losses are used to offset the negative effect of the loan loss provision on earnings. |
| Kim and Kross (1998) | For low capital banks, loan loss provisions are higher before 1989 than after, consistent with the new regulation reducing the incentive to exercise discretion over loan loss provisions and write-offs for purposes of capital ratio management. The change in the capital standards has no apparent effect on the loan loss provision of banks with high capital ratios. |
| Ahmed, Takeda, and Shawn (1998) | In the new capital regime the negative relation between loan loss provisions and capital is significantly diminished which is consistent with the reduction in the capital management incentives. This relationship is also less negative for banks that exceed the 1.25% limit in loan loss reserves. |

| Authors | Results |
|-----------------------------------|--|
| Kato, Kunimura and Yoshida (2001) | Banks use accruals and securities gains and losses to manage earnings in order to meet the Dividend Guideline limit, which is set at 40% of their current net income. |
| Ramesh and Revsine (2001) | Banks choose to amortize other post-employment benefit liability rather than recognizing all of it in the current year, in order to avoid a decrease in regulatory capital, by using earnings management benefits. |
| Beck and Narayanamoorthy (2013) | Strong and profitable banks use loan write off's as a basis for setting their loan loss provisions. Weaker and less profitable banks manage earnings by delaying loss provisioning and hence increase their regulatory capital base. |

After having considered how political costs can create incentives or disincentives for earnings management, the tax motivation is addressed next.

2.7.3 Taxation Motivations

When book income is the same as taxable income, then firms have incentives to manage earnings downwards so as to reduce the tax to be paid. According to the GAAP, accounting profits are not equal to taxable profits. For financial reporting purposes, income tax expense equals the accounting profit times the tax rate. For tax purposes, the tax to be paid is calculated according to government regulations. Thus, when book income is uncoupled from taxable income, firms will have incentives to reduce the tax to be paid and use earnings management techniques that will increase book profits. The following studies provide support for this argument.

Keating, Zimmerman and Simon (1999) examined the use of depreciation method changes and depreciation estimates in order to manage earnings and minimize taxes. In the US, depreciation for financial reporting was uncoupled from depreciation for tax purposes in 1981. Hence, the authors predicted that firms would make more depreciation revision estimates and apply depreciation method changes on new assets only in order to manage their earnings. The results provide evidence that revisions of estimates increased after 1981 since they provided managers with the flexibility to manage accounting earnings without an effect on their tax liability. Depreciation method changes were applied mostly to new assets only or to a subset of assets, thereby

minimizing the impact on profits due to the recognition of the cumulative effect of accounting change on the income statement.

Goncharov and Zimmermann (2006) investigated the incentives for tax management in Russian firms, before and after 2002. As of 2002, Russia changed its tax accounting and accounting income was uncoupled from taxable income. The authors found evidence that, in the post 2002 period, public firms engaged in less earnings management via accruals or by incomplete reporting. This result suggests that when book income is uncoupled from tax income, the quality of accounting information can actually improve.

Frank, Lynch and Rego (2009) developed a measure of tax reporting aggressiveness that detects tax shelter and used discretionary accruals as a measure of financial reporting aggressiveness. The results suggest that non conformity between financial reporting standards and tax law allowed firms to manage book income upwards and taxable income downwards in the same reporting period.

Accounting for income taxes includes deferred tax liabilities and deferred tax assets that arise from temporary differences i.e. different treatment of depreciation or provision for bad debts by the tax authorities. According to the GAAP, when it is more than likely that the deferred tax asset will not be recovered, it should be reduced through a tax valuation allowance account. When the valuation allowance account is increased, the reported tax expense increases, therefore profits decrease. The

determination of the valuation allowance involves managerial discretion and can therefore be understated so as to increase book profits. In this way, the tax expense becomes an opportunity to manage accounting earnings. The following studies provide evidence for this argument.

Bruce et al. (1998) found that four sources of income were significant determinants of the valuation allowance balance i.e. future reversals of existing taxable temporary differences, future taxable income, taxable income in carry-back periods, and the existence of tax-planning strategies. However, the income sources explained less than half of the variation in the account, suggesting that discretion was exercised when setting the account balance.

Miller and Skinner (1998) hypothesized that firms with greater expected future taxable income are more likely to realize their deferred tax assets and thus should have smaller valuation allowance balances. They also hypothesized that firms with larger carry-forwards should be less likely to realize their deferred tax assets and thus should have larger valuation allowance balances. The authors found a strong association between the valuation allowance and the amount of the deferred tax assets attributable to carry-forwards. They also tested whether the valuation allowance account could be used to smooth earnings. To test for smoothing, they studied firms that took large other post-employment benefit charges. The authors failed to detect earnings management and attributed this to the small sample size, which included data for only two years of post-implementation of Statement of Financial Accounting Standard 109: Accounting for

Income Taxes.

Bauman et al. (2001) found evidence that firms overstated their valuation allowance when they had losses from other operations. This finding implies that firms overstate the valuation allowance in periods of large losses so that they can understate it in future periods and increase earnings. The study fails to provide evidence that firms reported a change in valuation allowance to meet positive earnings or prior earnings. However, there is some evidence that managers used the valuation allowance to meet analysts' forecasts.

For a sample of commercial banks, Schrand and Wong (2003) hypothesized that, if bank capital adequacy was low, banks would be less likely to decrease current income by increasing the valuation allowance, in their effort to create hidden reserves for the future. The authors found evidence consistent with banks managing their earnings in order to boost the capital adequacy position. The results suggest that banks used changes in the valuation allowance to meet both prior earnings targets and analysts' forecast targets, though the latter result is weaker.

Frank and Rego (2006) predicted that firms would overstate (understate) the valuation allowance if pre-managed earnings were higher (lower) than the target. The authors found no evidence that the valuation allowance account was used to avoid losses or to meet earnings targets based on prior earnings. They did, however, find strong evidence that managers used the valuation allowance to meet (or beat) analysts'

forecasts.

Christensen et al. (2008) examined the valuation allowance for a sample of firms that reported large write-offs and a control sample of firms that did not. The results are mixed regarding whether the firms believed to be big-bath firms used the valuation allowance to decrease their income even more in the write-off year.

In widely-held firms, where there is separation between ownership and control, managerial actions are unobservable by external owners and other capital providers. Therefore, managers may wish to report increasing accounting profits in order to provide information about their performance. When there is little separation between owners and managers, managers can inform shareholders of the firms' value through communication channels other than audited financial statements. The following studies provide support for this argument.

Klassen (1997) investigated whether managers of firms with high tax rates chose to sell major asset groups at larger realized losses or smaller realized gains losses in order to decrease taxes. The author hypothesized that managers would make accounting choices depending on their informational environment. The author found that, for firms with higher tax rates and more concentrated ownership, managers took larger losses or smaller gains as opposed to widely held firms. Therefore managers of concentrated firms are more likely to undertake transactions that reduce both reported profits and taxes.

Goncharov and Zimmermann (2006) provide evidence that, private firms in Russia were more likely to reduce taxable reported profits so as to manage taxation. This is consistent with the argument that, a firm's performance is assessed through private communication channels rather than the analysis of accounting information, when ownership is concentrated.

Badertscher, Katz and Rego (2013) hypothesized that when ownership and decision making is concentrated, the owners- managers will be more risk averse, and will not have an incentive to avoid tax because such avoidance is a risky activity. They provide evidence that firms with more concentrated ownership engaged in less tax planning, consistent with the prediction that managers wish to reduce the significant costs associated with tax avoidance such as fees paid to tax experts, time devoted to the resolution of tax audits, reputational penalties, and penalties paid to tax authorities.

When firms take uncertain tax positions on their tax return, there is a possibility that they will be required to pay more taxes in the future, after the tax authorities have examined their tax returns. If the probability of paying such taxes is high, firms are required to record a contingent tax liability that also increases the tax expense. Since the contingent tax liability is an estimate, it is subjective and it provides an opportunity for manipulation. By understating or not recognising a contingent liability, the reported profits go up. In this way, the tax expense becomes an opportunity to manage accounting earnings. The following studies provide support for this argument.

Gupta and Laux (2008) examined whether companies reduced their tax contingent liability in order to increase profits and meet or beat prior earnings and analysts' forecasts. For a random sample of 100 companies, they identified firm-quarters during which reversals in the tax contingency were reported. A reversal of the tax contingency results in an increase in income. The authors found that firms managed the contingency account to beat analysts' forecasts.

Cazier et al. (2010) found that, when earnings observations were below the consensus forecast, the tax contingent liability was used to manage income and meet the forecast. The authors also found that firms with earnings above the consensus analyst forecast were more likely to increase their contingency balances and thus create reserves for future years.

Book income differs from tax income not only because of temporary differences but due to permanent differences as well. Permanent differences, such as tax exempt interest received from government bonds, do not give rise to deferred tax items. Tax exempt items are included in book income, but no tax expense is recorded. Permanent differences cause effective tax rates (income tax expense divided by pre-tax income) to differ from the tax rates. Therefore, tax planning provides an opportunity for earnings management. The following studies include tests on this argument.

Scholes, Wilson and Wolfson (1990) found that banks chose to sacrifice tax benefits, by realising securities gains and losses, in order to improve their capital

positions. Presumably, banks would be more inclined to take actions that would reduce their taxes, if the effect on the reported income and regulatory capital was small and the potential tax benefits large.

Warfield and Linsmeier (1992) argue that, for tax-paying banks, the optimal strategy would be to sell investment securities that result in losses and to delay the sale of investment securities that result in gains. Non-taxpaying banks, with carry-forward benefits from net operating losses or investment tax credit should recognise security transaction gains and defer recognition of losses. The authors tested their hypothesis on bank quarterly earnings. Their tax-planning hypothesis was supported for the first three quarters but was limited in the last quarter by earnings and regulatory capital management. This evidence suggests that banks are likely to recognise securities gains in order to improve their capital positions despite the tax benefits lost.

Clinch and Magliolo (1993) predicted that banks with high marginal tax rates would want managers to reduce reported income through management of taxable earnings components. The authors failed to find evidence of tax management. A possible explanation is that, the banks included in the study had a lot of non-performing loans in their loan portfolios. Non-performing loans could eventually be written off, which would result in a decrease of the loan loss reserve and regulatory capital. Consequently bank managers may have been instructed by their banks to disregard tax effects in view of anticipated low capital levels.

Collins, Schakelford and Wahlen (1995) and Beatty, Chamberlain and Magliolo (1995) also found evidence that banks were willing to incur greater tax costs in order to avoid a reduction of regulatory capital. The authors found that banks reported lower loan write off's, which are tax deductible, and recognised more securities gains, which are taxable.

The findings of Dhaliwal et al. (2004) are consistent with managers manipulating tax expense down (thus, increasing net income and decreasing the effective tax rates) when the pre-managed earnings fell short of the forecasted earnings.

Gleason and Mills (2008) also provide evidence that firms managed their tax expense in order to beat the analysts' forecasts. They document a weak market reaction to the manipulated unexpected earnings, which they interpret as evidence that the market sees through managerial manipulation of the tax expense account.

Cook et al. (2008) tested whether tax expense can be used as a last chance to manage earnings after the passage of the Sarbanes-Oxley Act. They found that earnings management was greater for firms that paid higher tax-related fees to their auditors and that this result did not change after passage of Sarbanes-Oxley. They also found that among firms that paid no tax-related fees to their auditors, those that would miss their earnings forecasts, utilized this form of earnings management more than for those that would not miss their forecasts. This result does not hold after the Sarbanes-Oxley Act.

In the U.S. managers are allowed to choose between a permanent or a temporary treatment of foreign subsidiaries' earnings. More specifically, U.S. foreign subsidiaries pay income tax in the jurisdictions where they operate. Their parent companies pay no U.S. taxes until the profits are repatriated in the form of dividends. If the temporary difference treatment is chosen, the parent company estimates the tax that will be paid in the future and records a deferred tax liability, thus reducing current after-tax book income. If the permanent difference option is chosen, the foreign profits are designated as permanently reinvested and hence no tax is reported.

Krull (2004) examined whether firms managed their earnings by choosing to designate foreign earnings as permanently reinvested. Consistent with her predictions, she shows that year-to-year changes in the amounts of permanently reinvested foreign earnings were positively related to the difference between analysts' forecasts and pre-managed earnings. Thus, firms are more likely to defer recognition of residual taxes if deferral enables them to meet analysts' forecasts.

Klassen and Laplante (2012) also investigated US multinational companies and their propensity to shift income from the US to foreign jurisdictions. The authors found evidence that suggests that firms with low foreign tax rates relative to domestic tax rates shifted significantly more income out of the US. They also document that those firms that reported lower tax expense, by designating earnings outside the US as permanently reinvested, were more aggressive in their financial reporting activities.

Table 7 on the next page provides a summary of the results of the empirical studies on taxation and earnings management.

Table 7: Results of Empirical Studies on Taxation and Earnings Management (in chronological order)

| Authors | Results |
|---|--|
| Scholes, Wilson and Wolfson (1990) | Banks chose to sacrifice tax benefits, by recognising securities gains, in order to improve their capital positions. |
| Warfield and Linsmeier (1992) | Banks are likely to recognise securities gains in order to improve their capital positions despite the tax benefits lost. |
| Clinch and Magliolo (1993) | Bank managers disregard tax effects and manage earnings upwards so as to maintain their capital levels. |
| Collins, Schakelford and Wahlen (1995) | Banks report lower loan write off's, which are tax deductible, and recognise more securities gains, which are taxable, in order to manage their capital adequacy. |
| Beatty, Chamberlain and Magliolo (1995) | Banks are willing to incur greater tax costs in order to avoid a reduction of regulatory capital. |
| Klassen (1997) | For firms with higher tax rates and more concentrated ownership, managers take larger losses or smaller gains as opposed to widely held firms. Managers of concentrated firms are more likely to undertake transactions that reduce both reported profits and taxes. |

| Authors | Results |
|---|--|
| Bruce et al. (1998) | The determinants of the valuation allowance balance explain less than half of the variation in the account, suggesting that discretion is exercised when setting the account balance. |
| Miller and Skinner (1998) | Firms with greater expected future taxable income are more likely to realize their deferred tax assets and have smaller valuation allowance balances. Firms with larger carry-forwards are less likely to realize their deferred tax assets and have larger valuation allowance balances. The tax valuation allowance is not used to smooth the impact of large other post-employment benefit charges. |
| Keating, Zimmerman and Simon (1999) | When depreciation for financial reporting is uncoupled from tax depreciation, depreciation estimate revisions increase. Depreciation method changes are applied mostly to new assets only, thereby minimizing the impact on profits due to the recognition of the cumulative effect of accounting change on the income statement. |
| Bauman et al. (2001) | Firms overstate the valuation allowance in periods of large losses from other operations so that they can understate it in future periods and increase earnings. |
| Schrand and Wong (2003) | Banks use changes in the valuation allowance to manage regulatory capital and to a lesser extent, to meet both prior earnings targets and analysts' forecast targets. |
| Dhaliwal et al. (2004) | Managers manipulate the tax expense down (thus, increasing net income and decreasing the effective tax rates) when the pre-managed earnings fall short of the forecasted earnings. |
| Krull (2004) | Firms choose to designate their earnings as permanently reinvested in order to manage their reported profitability. |
| Frank and Rego (2006) | There is no evidence that the valuation allowance account is used to avoid losses or to meet prior earnings targets. Managers use the valuation allowance to meet (or beat) analysts' forecasts. |

| Authors | Results |
|---------------------------------|---|
| Goncharov and Zimmermann (2006) | When book income is uncoupled from tax income, the quality of accounting information improves. Private firms with more concentrated ownership reduce taxable reported profits so as to manage taxation. |
| Christensen et al. (2008) | The results are mixed regarding whether the firms believed to be big-bath firms use the valuation allowance to decrease their income even more in the write-off year. |
| Gupta and Laux (2008) | Firms report reversal of tax contingent liability in order to increase profits and meet or beat prior earnings and analysts' forecasts. |
| Gleason and Mills (2008) | Firms manage their tax expense in order to beat the analysts' forecasts. The market sees through managerial manipulation of the tax expense account. |
| Cook et al. (2008) | Firms that pay higher tax-related fees to their auditors use the tax expense as a last chance to manage earnings. Among firms that pay no tax-related fees to their auditors, those that would miss their earnings forecasts utilize this form of earnings management more. |
| Frank, Lynch and Rego (2009) | Non conformity between financial reporting standards and tax law allows firms to manage book income upwards and taxable income downwards in the same reporting period. |
| Cazier et al. (2010) | When earnings are below the consensus analyst forecasts, firms use their contingent tax liability to meet these forecasts. Firms with earnings above the consensus analyst forecast use their contingency balances to create reserves for future years. |

| Authors | Results |
|-----------------------------------|---|
| Klassen and Laplante (2012) | Firms with low foreign tax rates relative to domestic tax rates, shift significantly more income out of the United States when foreign reinvestment-related incentives are high. Firms that report lower tax expense by designating earnings as permanently reinvested are more aggressive in their financial reporting activities. |
| Badertscher, Katz and Rego (2013) | Firms with more concentrated ownership engage in less tax planning, consistent with the prediction that managers wish to reduce the significant costs associated with tax avoidance. |

2.7.4 Job Security Concerns

Managers are concerned about profitability not only because of profit sharing plans, but because profitability informs shareholders about the quality of their decisions. Profitability increases the shareholders' wealth. Entrusted by the owners to achieve this at any cost, the management of the company has to ensure that their decisions are in accordance with the target fixed by the owners. The CEO and other senior managers can be removed from office, if they have caused damages from breach of any contract between them and the company. Shareholders can also remove executive board members at the annual general meeting. Empirical evidence on job security concerns and earnings management is presented next.

The evidence provided by Moore (1973) suggests that the proportion of income-reducing accounting decisions was significantly greater for companies with management changes than for companies with no management turnover. This result is consistent with managerial incentives to manage earnings upwards for job security reasons. Incoming CEO's managed earnings downwards when this could be blamed to their predecessors and thus, save earnings for the future for which they take the credit.

Elliot and Shaw (1988) document that, in 39% of the sample firms, a material write-off was recognised in the year that there was a change of the CEO or president or CFO. This evidence suggests that new managers can benefit because the reported low earnings may be blamed on the old management, and earnings are saved for the future.

DeAngelo (1988) found evidence that when individuals faced a contest for their positions as managers, prior to the contest, they adopted accounting methods that led to an increase in reported profits, thereby bolstering their case for re-election. DeAngelo also shows that where the existing managers were unsuccessful in retaining their positions, the newly appointed managers were inclined to recognize many expenses as soon as they took office, in an attempt to highlight the 'poor state of affairs' they had inherited and save earnings for the future.

Murphy and Zimmerman (1993) also found that for a sample of poorly performing firms, the CEOs did not income maximize for job security reasons but it was observed that these individuals subsequently left the firm. It was also observed that incoming CEOs of these firms income minimized. This result is consistent with managerial incentives to save earnings for the future, driven by job security concerns.

Similarly, Pourciau (1993) found evidence that the incoming executive adopted income-decreasing policies in the first year in order to better increase earnings in the following years. Many of the changes examined took place in situations where there were few forewarnings of an unexpected resignation.

Fudenberg and Tirole (1995) report that bank managers were motivated to smooth earnings driven by job security considerations. When current performance was poor, as compared to other banks, managers understated total and discretionary loan loss provisions so as to increase profits and reduce the possibility of dismissal.

Alternatively, when future relative performance was expected to be poor, managers shifted current earnings to the future, by increasing current total and discretionary loan loss provisions to reduce the likelihood of poor future performance and the associated threat of interference.

Managers may face the threat of being fired when current earnings are poor, regardless of past earnings performance. Consequently, income smoothing to avoid reporting poor earnings improves job security. DeFond and Park (1997) report evidence that managers used discretionary accruals to "borrow" earnings from future periods when future earnings were expected to be good as compared to current earnings. Similarly, managers appear to have saved current earnings when future earnings were expected to be poor relative to current earnings.

DeFond and Park (1999) provide evidence that, in high competition industries, replacement decisions were based on relative performance evaluation, measured by industry relative earnings, stock return volatility, and analysts forecasts errors. In low competition industries CEO dismissal decisions were taken based on firm specific accounting measures such as specific earnings targets. Therefore, since replacement decisions take into consideration accounting profits, the results suggest that managers in low competition industries had an incentive to manage earnings in order to avoid dismissal.

Wells (2002) also provides support that incoming CEO's engaged in income decreasing earnings management in the year of the CEO change. Thus, the incoming CEO would not be associated with past decisions and could not be criticized for downwards earnings management. Future earnings were saved for which the new CEO could take the credit.

Kanagaretnam, Lobo and Mathieu (2003) report results which suggest that, when current bank performance was poor, as compared to other banks, bank managers reduced their loan loss provisions in order to increase profits. When earnings needed to be saved for the future, besides understating loans loss provisions, the authors also found that securities gains were low, but the significance was weak.

Engel, Hayes and Wang (2003) document that accounting information appears to receive greater weight in turnover decisions when accounting-based measures are more precise and when the market-based performance measures are more volatile. In particular, the authors found that when accounting information was more informative about managerial performance, boards of directors relied more heavily on accounting profits when making decisions about continuation of CEO employment. Hence, turnover probability increased faster with reductions in accounting returns, suggesting that earnings management was a way to avoid dismissal.

Coughlan and Schmidt (1985) have found different results. They investigated how both compensation and management change policies can be used by a firm's compensation committee in order to control managerial behaviour. The authors first

provide evidence that, by linking compensation to the firm's abnormal stock returns, managerial interests were aligned with those of shareholders, since good management is ultimately reflected in the stock price. The second finding was that, CEO replacement decisions were based on stock price. Since good management is reflected in the stock price, this result suggests that managerial interests were aligned with those of the firm's owners, thereby limiting incentives to engage in opportunistic earnings management.

Menon and Williams (2008) provide evidence that CEO replacements took place when financial reporting quality was poor. They found a high incidence of CEO and CFO changes following auditor resignations. A principal reason for auditors to resign is the desire to limit exposure to litigation risk, because auditors have private information with respect to financial reporting credibility. The results suggest that directors held managers responsible for the failure to satisfy auditors and viewed disagreements as a sign of poor managerial performance. This evidence implies that managers might avoid opportunistic earnings management, fearing auditors' disputes and subsequent dismissal.

Table 8 on the next page provides a summary of the results of the empirical studies on job security concerns and earnings management.

Table 8: Results of Empirical Studies on Job Security Concerns and Earnings Management (in chronological order)

| Authors | Results |
|-----------------------------|---|
| Moore (1973) | The proportion of income-reducing discretionary accounting decisions is significantly greater for companies with management turnover. Incoming CEO's manage earnings downwards when this can be blamed to their predecessors and save earnings for the future for which they take the credit. |
| Coughlan and Schmidt (1985) | CEO replacement decisions are based on stock price. Since good management is reflected in the stock price, managerial interests are aligned with those of the firm's owners, thereby limiting incentives for opportunistic earnings management. |
| Elliot and Shaw (1988) | For 39% of the sample firms, there is a change of the chief executive officer or president or chief financial officer during the year of material write-offs or reorganisation provisions. New managers benefit because the reported low earnings may be blamed on the old management, and earnings are saved for the future. |
| DeAngelo (1988) | Managers that face a contest for their positions, adopt income increasing accounting methods thereby bolstering their case for re-election. If existing managers are unsuccessful in retaining their positions, the newly appointed managers recognize many expenses to highlight the 'poor state of affairs' they have inherited and save earnings for the future. |
| Murphy and Zimmerman (1993) | For a sample of poorly performing firms, the chief executive officers do not income maximize for job security reasons, but it is observed that these individuals subsequently left the firm. The incoming chief executives income-minimize in order to save earnings for the future. |
| Pourciau (1993) | Incoming executives adopt income-decreasing policies in the first year in order to increase earnings in the future. |

| Authors | Results |
|---------------------------------------|---|
| Fudenberg and Tirole (1995) | Bank managers use total and discretionary loan loss provisions so as to smooth profits over time and reduce the possibility of dismissal. |
| DeFond and Park (1997) | Managers use income smoothing in order to secure their jobs. |
| DeFond and Park (1999) | In high competition industries, replacement decisions are based on relative performance evaluation. In low competition industries CEO dismissal decisions are based on firm specific accounting measures, thus providing managers with incentives to manage earnings in order to avoid dismissal. |
| Wells 2002 | Incoming CEO's engage in income decreasing earnings management in the year of the CEO change, thus saving future earnings for which the new CEO can take the credit. |
| Kanagaretnam, Lobo and Mathieu (2003) | Bank managers smooth earnings driven by job security concerns. |
| Engel, Hayes and Wang (2003) | When accounting information is more informative about managerial performance, boards of directors rely more heavily on accounting profits when making decisions about continuation of CEO employment. Hence, earnings management is a way to avoid dismissal. |
| Menon and Williams (2008) | There is a high incidence of CEO and CFO changes following auditor resignations. Directors hold managers responsible for the failure to satisfy auditors, and view disagreements as a sign of poor managerial performance. |

After having considered how job security concerns can impact earnings management, the stock price effect is addressed next.

2.7.5 Stock Price Effect

Behavioural finance proposes that investors may have the tendency to ignore the way accounting numbers are calculated, and often fixate on net profit only (Stolowy and Breton, 2004). One method of valuing a company's stock price is to discount the sum of all future dividends back to their present value, using a return that investors require (Gordon, 1959). Since dividends are paid out of earnings, expectations about future earnings can be formed, at least in part, on the basis of historical earnings. Besides historical earnings, other publicly available information such as, media releases, analysts' reports etc., are considered when predicting future earnings (Deegan and Unerman, 2006, p. 152). Since share prices reflect information from various sources, one could argue that managers cannot make less than truthful disclosures, which contradict other available information, because the market will question the integrity of the managers (Deegan and Unerman, 2006, p. 210). However, there is empirical evidence that accounting profits or other information included in the financial statements do have an effect on stock prices.

The relationship between accounting earnings and stock price also depends on whether the change in earnings is expected to be permanent or temporary. Permanent increases are expected to result in increased dividends, and therefore future cash flows. On the other hand, temporary increases are ignored, since they are not expected to

have the same impact on expected future dividends (Easton and Zmijewski, 1989). While some earnings changes such as those due to one-off restructuring charges are obviously temporary, it is more difficult to determine whether other earnings changes are likely to persist. The studies presented next provide empirical evidence earnings management and the stock price effect.

Elliot and Shaw (1988) examined the impact on share prices of financially distressed firms that disclosed material write offs and reorganisation provisions. In view of financial difficulties, it could be argued that write offs should have been anticipated by the market, and perceived as a constructive response to existing problems. The results showed that investors reacted negatively to the restructuring. The decline in stock returns could suggest that the write-offs exceeded expectations or that the restructurings were not expected to solve financial problems as defended in the management announcement of the restructuring.

Barth, Beaver and Wolfson (1990) studied whether investors assign more importance to bank earnings before securities gains and losses. Earnings before securities gains and losses are generated from the ongoing operating activities of a bank, and investors will consider these earnings components as recurring. In contrast, securities gains may be viewed as transitory and most likely they can be timed in an effort to manage earnings. The results indicate that when earnings before securities gains and losses were low, securities gains and losses were high, which is consistent with the smoothing. The evidence also suggests that investors did not find securities

gains and losses to be value relevant, because they believed that these earnings components were used by managers to smooth earnings.

Liu and Ryan (1995) studied how banks' loan portfolio composition and the loan loss provisions affect share prices. A bank loan portfolio includes large, frequently renegotiated loans, like foreign and commercial loans, and small, infrequently renegotiated loans, like consumer loans. Due to the large size and possibility for renegotiation, bank managers evaluate the default risk of large loans on a loan by loan basis. For small loans the default risk is assessed using more mechanical procedures and it is based on historical data. Consequently, managerial discretion increases as the number of large and frequently renegotiated loans included in the portfolio increases. The authors hypothesized that if loan loss provisions for small or infrequently renegotiated loans are subject to less managerial discretion, then the market reaction should be negative because the provisions will signal bad news. The authors found that for banks with a high proportion of small loans in their loan portfolios the market reaction to loan loss provisions was negative. On the contrary, for banks that had a high proportion of large loans the market reaction was positive. However, the coefficient on the loan loss provision changed from positive to negative as well for the banks with relatively larger and more frequently renegotiated loans.

Sloan (1996) predicted that, investors will simply 'fixate' on reported earnings, without considering how those numbers have actually been determined. Sloan argues that firms with large accruals relative to their actual cash flows are unlikely to have

persistently high earnings, since the accruals reverse over time, thereby reducing future earnings. The share prices were found to act as if investors simply 'fixate' on reported earnings, thereby failing to take account of the relative magnitudes of the cash and accrual components of earnings.

Beaver and Engel (1996) examined whether the market assigns different prices to the discretionary and the nondiscretionary component of loan loss provisions. The nondiscretionary component was expected to be negatively priced because it would provide information about impairment of the loans. The discretionary component was predicted to be positively priced because it could convey managerial beliefs about the future earning power of the bank. The evidence found is consistent with these expectations.

Subramanyam (1996) found that the market responded positively to discretionary accruals. This evidence may imply that managers were using earnings management responsibly to reveal inside information about future earning power, or the market responded naively to earnings management. In view of this the author conducted more tests that tend to support that the market responded efficiently to the discretionary accruals.

Liu, Ryan, and Whalen (1997) investigated the effect that the expected and unexpected quarterly bank loan loss provisions had on share prices. They found a positive share price reaction to unexpected increases in loan loss provisions for banks

with low regulatory capital suggesting that the market interpreted the managing of earnings downwards as a signal that banks were taking steps to improve their future performance. This reaction however was detected in the fourth quarter, which may be due to added reliability because of auditing. For banks with higher than the regulatory minimum capital, unexpected increases in the loan loss provisions influenced the market negatively. Apparently for banks not at risk, the market interpreted this information as bad news.

Xie (2001) found that the stock price reaction was positive and significantly higher for discretionary accruals than for non-discretionary accruals. An efficient market should assign a lower earnings response coefficient to discretionary accruals because they are less persistent. The evidence suggests that the market appears to have been “fooled” by earnings management.

Burgstahler, Jiambalvo and Shelvin (2002) investigated whether stock prices reflect the effects of special items, given that special items are assumed to be largely transitory. The items investigated were results of discontinued operations, natural disaster losses, and profit or loss from the sale of assets and investments. The authors found that the effect of special items was underestimated, suggesting market inefficiency with respect to the pricing of special items.

McVay (2006) examined classificatory earnings management. Classification shifting does not change bottom-line earnings and, thus, does not reverse in future

periods or invite scrutiny from auditors and regulators. However, individual line items have different information content for future earnings and, correspondingly, for investors. The author examined classification shifting between core expenses and special items. The author found that classificatory earnings management was more pervasive when it allowed managers to meet the analyst forecasts. There is also some evidence that classification shifting was associated with negative returns in the subsequent year, suggesting that investors were negatively surprised when expenses that were excluded from core earnings in the previous period, were included in core expenses in the current year.

Picconi (2006) explored whether investors and analysts fully process the earnings effects of changes in defined benefit plan assumptions. The author found that both prices and forecasts failed to reflect new pension information at the time it became publicly available, and that it was only gradually incorporated through its effects on quarterly earnings. These findings provide insight into how analysts form forecasts, and to what level they scrutinize disclosed information. The results suggest that analysts failed to incorporate the quantifiable earnings effects of relevant and economically significant information.

Kerstein and Rai (2007) hypothesized that the market is more likely to suspect earnings management when firms report small increases in earnings with the help of large discretionary accruals because small discretionary accruals are more likely to represent non-discretionary accruals or measurement errors. Consistent with the

predictions, the authors found that the market discounted unexpected earnings when there were small increases in earnings using negative large accruals (i.e., masking earnings variance or smoothing) or positive large accruals (i.e., masking lower earnings levels).

Callen, Khan and Lu (2013) predicted that the processing of newly arriving value-relevant information takes longer when accounting quality is poor, leading to delayed stock price adjustment. The authors found evidence that firms with poor accrual quality and large negative special items were associated with significantly higher price delay. The finding suggests that investors did process the accounting information and that this was properly reflected in stock prices.

Initial public offerings (IPO's) are shares that are issued for the first time and therefore do not have an established market price. Financial accounting information included in the prospectus is a useful source of information to value the shares of such firms (Hughes, 1986).

Clarkson, Dontoh, Richardson, and Sefcik (1992) found evidence that the managers of firms going public managed the earnings reported in their prospectuses, in the hope of receiving a higher price for their shares. Apparently the market responded positively to earnings forecasts, which were considered as a signal of firm value.

Friedlan (1994) also selected a sample of IPO firms and investigated whether these firms managed their earnings upward in the accounting period prior to the IPO, by using discretionary accruals. The author found that, IPO firms did manage their earnings upwards in the period prior to the IPO, relative to other periods. Of all the firms in the sample, accruals management seemed to be more significant in the poor-performing firms and in the smaller firms.

Jaggi, Chin, Lin, and Lee (2006) investigated earnings management practices for IPO firms in Taiwan. IPO firms are required to include annual earnings forecasts in their prospectuses and also disclose forecasts for two years subsequent to the issuance of IPO. Firms are allowed to revise their forecasts. The results show that the IPO forecasts as well as forecasts for two mandatory years after issuance of IPOs were more optimistic than conservative. Additionally, the results show that the forecasts errors were reduced more by using discretionary accruals, especially for optimistic forecasts, rather than revising the earnings forecasts.

Similar evidence is reported by Chin et. al. (2006) who report that, issuing firms in Taiwan produced optimistic inaccurate forecasts in order to increase both the market value of the controlling owner's shareholdings and the firm's proceeds from the shares issued.

Ball and Shivakumar (2008) compared UK financial data prepared when the firms were private to financial data prepared for inclusion in the prospectus. The results

showed that firms improved their financial reporting quality prior to an IPO, suggesting that firms responded to market demand for higher quality accounting information. The evidence is consistent with the argument that from the point that firms lose their private status, they consider reputation effects, cost of capital effects, and monitoring by internal and external auditors, boards, analysts, rating agencies, the press, litigators and other parties.

Table 9 on the next page provides a summary of the results of the empirical studies on the stock price effect and earnings management.

Table 9: Results of Empirical Studies on the Stock Price Effect and Earnings Management (in chronological order)

| Authors | Results |
|---|---|
| Elliot and Shaw (1988) | Investors react negatively to restructurings suggesting that the write-offs exceed expectations or that the restructurings are not expected to solve financial problems. |
| Barth, Beaver and Wolfson (1990) | Investors do not find securities gains and losses to be value relevant because they believe that these bank earnings components are used by managers to smooth earnings. |
| Clarkson, Dontoh, Richardson, and Sefcik (1992) | Managers of firms going public manage the earnings reported in their prospectuses in order to receive a higher price for their shares. The market responds positively to the forecasts. |
| Friedlan (1994) | IPO firms use accruals more in order to manage their earnings upwards in the period prior to the issue, relative to other periods. For poor performing or smaller firms, earnings management is more pronounced. |
| Liu and Ryan (1995) | For banks with a high proportion of small loans, the market reaction to loan loss provisions is negative, consistent with signalling bad news. For banks with a high proportion of large loans, the market reaction is positive, despite the larger discretion when setting loan loss provisions for large and frequently renegotiated large loans. |
| Sloan (1996) | The share prices are found to act as if investors simply 'fixate' on reported earnings, failing to take into account the relative magnitude of accruals. |
| Beaver and Engel (1996) | Investors react negatively to the non-discretionary component of loan loss provisions because it signals bad news; they react positively to the discretionary component as it may reveal management's inside information. |

| Authors | Results |
|--|--|
| Subramanyam (1996) | The market responds efficiently to the discretionary accruals. |
| Liu, Ryan, and Whalen (1997) | There is a positive share price reaction to unexpected increases in loan loss provisions for banks with low regulatory capital, suggesting that investors consider it as a signal that banks are taking steps to improve their future performance. For banks with high regulatory capital, unexpected increases in the loan loss provisions are interpreted as bad news. |
| Xie (2001) | The earnings response coefficient is significantly higher for discretionary accruals than for non-discretionary accruals, even though discretionary accruals are less persistent. The market appears to be “fooled” by earnings management tactics. |
| Burgstahler, Jambalvo and Shelvin (2002) | Investors underestimate the effect of special, transitory items, suggesting market inefficiency with respect to the pricing of special items similar to that observed for earnings as a whole. |
| Chin et. al. (2006) | Taiwanese issuing firms produce optimistic inaccurate forecasts in order to increase both the market value of the controlling owner's shareholdings and the firm's proceeds from the shares issued. |
| McVay (2006) | Firms use classificatory earnings management to meet analyst forecasts. There is some evidence that investors react negatively to classificatory earnings management i.e. when expenses that are excluded from core earnings in a previous period, are included in core expenses in the current year. |

| Authors | Results |
|----------------------------------|---|
| Picconi (2006) | Share prices and forecasts fail to reflect new pension information at the time it becomes publicly available and this information is gradually incorporated through its effects on quarterly earnings. |
| Jaggi, Chin, Lin, and Lee (2006) | For Taiwanese firms, IPO forecasts as well as forecasts for two mandatory years after issuance are very optimistic. |
| Kerstein and Rai (2007) | The market discounts unexpected earnings when there are small increases in earnings using large discretionary accruals. Small discretionary accruals are more likely to represent non-discretionary accruals or measurement errors. |
| Ball and Shivakumar (2008) | Firms improve their financial reporting quality prior to an IPO, suggesting that firms respond to market demand for higher quality accounting information. |
| Callen, Khan and Lu (2013) | Firms with poor accrual quality and large negative special items are associated with significantly higher price delay. Investors process the accounting information and this is properly reflected in stock prices. |

After having considered the incentives for earnings management, the disincentives for such practices are addressed in Section 2.8.

2.8 Disincentives for Earnings Management

The considerable attention that regulators have given to corporate governance indicates that stronger governance mechanisms increase the monitoring of management's actions and limit opportunistic behaviour (Ashbaugh et al, 2004). There is evidence that well governed companies have higher equity returns and their accounting statements show a better operating performance (La Porta et al., 2002; Gompers et al., 2003; Brown and Caylor, 2005).

The corporate governance factors that are presumed to control managerial opportunistic behaviour and protect shareholders' interests are: the board of directors; audit committees; auditing; and corporate ownership. The effect of corporate governance on earnings management is explained next.

2.8.1 Board of Directors

In open corporations, shareholders have the right to approve the board members, to whom they delegate the internal control and other management functions. The board of directors is responsible for the overall business strategy, long-range planning, hiring and determining compensation terms of executives, and oversight, including audit overviews. The CEO and other senior executives are normally responsible for the day-to-day operations and the development of plans and strategies

for board approval. The operating success rests on the CEO and his or her executive team. The CEO is central to the earnings management environment of the firm. The board of directors has substantial control over the CEO's decisions. Thus, board effectiveness is a major signal of the monitoring potential. As explained next, board effectiveness can be ensured by independence, expertise, size and board meetings.

It is argued that in order for the board to be an effective monitoring device it should include several executive directors who provide the board with information about their decisions and the decision and performance of other managers. Given that the board is to be composed of experts, its most influential members are inside executives since they have valuable specific information about the organization. Management is also more likely to cooperate with board members with whom they are better acquainted (Agrawal and Knoeber, 1996).

A counter-argument is that boards of directors are believed to play an important role in monitoring top management especially if the proportion of outside, non-executive directors on the board is high (Byrd and Hickman, 1992; Brickley et al., 1994). Non-executive directors often have a financial background or frequently hold senior management positions in other large corporations. Thus they have the ability to monitor the financial reporting process in order to detect earnings management (Fama and Jensen, 1983; Peasnell et al., 1999). In addition, outside directors have incentives to be effective monitors in order to maintain the value of their reputational capital since the

value of their human capital depends primarily on their performance as internal decision managers in other organizations (Fama and Jensen, 1983; Shivadasani, 1993).

On the other hand, having a high proportion of non-executive directors on the board may have disadvantages such as stifling strategic actions (Goodstein et al., 1994), excessive monitoring (Baysinger and Butler, 1985) and lack of business knowledge to be effective (Patton and Baker, 1987).

Nevertheless, there has been pressure on firms to increase the number of non-executive directors on firm boards (Davies, 2000). Therefore, a mix of both executive and non-executive directors, who have appropriate knowledge and experience, is believed to increase the likelihood that the board will achieve its control function and lowers the probability that top managers will collude with other board members against the shareholders' interests (Fama, 1980).

Board size is another important element that may have an effect on earnings management. Smaller boards, between four to six members might be more effective since they are able to make timely strategic decisions (Goodstein et al., 1994). On the other hand, a larger board with a lot of members who have varied expertise could increase the synergistic monitoring of the board and reduce the incidence of earnings management (Xie et al., 2003).

Boards that meet frequently are also more likely to perform their duties diligently (Lipton and Lorsch, 1992). Boards can react to poor performance and challenging business circumstances by increasing the frequency of meetings (Vafeas, 1999). This may stem from the notion that an active board that devotes time to rectify any immediate issues may deter earnings management. In contrast, Jensen (1993) argues that, board meetings are not necessarily useful because, given the directors' limited time, they cannot be used for meaningful exchange of ideas between directors managers.

Evidence on board characteristics and their impact on earnings management is presented next.

Peasnell, Pope and Young (2000, 2005) have found that, when earnings were lower than the previous year's reported earnings, abnormal accruals were less income increasing when the proportion of outsiders on the board was relatively high. There is strong evidence that outside directors did not influence income decreasing earnings management. An explanation for this result may be that outside directors were more concerned with income overstatement due to litigation risks rather than income understatements.

Klein (2000) hypothesized that the presence of non-executive directors can help reduce opportunities for earnings management. The author also considered whether the monitoring ability of the board may be undermined if a CEO sits on the nominating or

compensation committee. Boards are less likely to be effective if they know that the CEO is involved in their selection (Shivdasani and Yermack, 1999). Furthermore, a CEO sitting on the board's compensation committee may be in a position to influence in favour of more earnings incentive bonuses. The author found no significant relationship between earnings management and whether the CEO sat on the board's nominating committee. However, a significantly positive association was found between earnings management and whether the CEO sat on the board's compensation committee. These results suggest that boards structured to be more independent of the CEO may be more effective in monitoring the financial accounting process.

Xie et al. (2003) have also found that the number of board meetings was negatively associated with the level of earnings management, indicating that boards that meet regularly can be better monitors.

Anderson, Mansi and Reeb (2004) provide evidence that board independence and size was associated with lower debt financing costs. These findings suggest that creditors concerns were alleviated since larger and more independent boards could be more effective monitors of the financial reporting process.

Vafeas (2005) studied the relationship between board independence and size with financial reporting quality. He provides evidence that these board characteristics improved the quality of accounting information, measured by small earnings increases and timely recognition of losses.

For a sample of Canadian firms, Niu (2006) found that firms with more independent boards and more effective compensation policies had fewer discretionary accruals, suggesting that these factors are effective in monitoring managerial opportunism. To provide further evidence that governance matters for a firm's financial reporting quality, additional tests were conducted; the results showed that improvements in governance practice were generally associated with less discretionary accruals and more informative reported earnings.

For a sample of Malaysian firms, Abdul Rahman and Ali (2006) failed to find evidence that a high proportion of non-executive directors could mitigate earnings management. A possible explanation for this result could be management dominance over board matters or the outside board members' relative lack of knowledge in company's affairs. Given that outside directors are busy with other activities, they may be more reliant on management for information. The results however show that board size had a significant impact on discretionary accruals. This evidence suggests that when board size is small, the directors are more focused in solving any issues that may arise.

Wright, Shaw and Guan (2006) examined the incidence of earnings management in the US and the UK. Considering the difference of corporate boards (US boards include mostly outsiders whereas UK boards include insiders), the authors examined whether managers income minimized prior to a management buyout. The results indicate that for both countries, the discretionary accruals were income-decreasing

during the year before the management buyout tender offer was made. The results also show that managers of US firms managed earnings downward to a greater extent than their counterparts in the UK. These results suggest that, despite the greater proportion of outside directors sitting in US boards, earnings management was not limited.

Ebrahim (2007) provides results which indicate that, the value of abnormal accruals was negatively related to the percentage of independent directors on the board. The author failed to find evidence between abnormal accruals and board activity. One possible explanation for this finding is that the number of board meetings is an indication of the board's reaction to urgent business matters rather than an indication of a monitoring function of the financial reporting process.

Johnstone, Li and Rupley (2011) examined whether a firm that has gone through governance changes, subsequently remediates material internal control weaknesses that have led to a material negative event such as fraud or restatement. The results have shown that, improvements in board characteristics such as size, number of meetings, the duality of CEO and chairman, independence and competence were positively associated with the timeliness of remediation relating to control environment and information and communication weaknesses.

Masulis, Wang and Xie (2012) document that, independent foreign directors, with international background and expertise, improved the advisory function of boards. However, foreign directors were found as more likely to miss board meetings. The

evidence shows that firms with foreign directors paid their CEOs excessively high compensation, were more likely to engage in intentional financial misreporting, and were less responsive in replacing poorly performing CEOs. These results suggest that local directors are more active and can be better monitors of managerial behaviour.

Table 10 on the next page provides a summary of the results of the empirical studies on board characteristics and earnings management.

Table 10: Results of Empirical Studies on Board Characteristics and Earnings Management (in chronological order)

| Authors | Results |
|---------------------------------------|--|
| Peasnell, Pope and Young (2000, 2005) | When earnings are lower than the previous year's reported earnings, abnormal accruals are less income increasing when the proportion of outsiders on the board is high. Outside directors do not influence income decreasing earnings management, suggesting that they may be more concerned with income overstatement due to litigation risks. |
| Klein (2000) | There is no significant relationship between earnings management and whether the CEO sits on the board's nominating committee. There is a positive association between earnings management and whether the CEO sits on the board's compensation committee, suggesting that boards structured to be more independent of the CEO may be more effective monitors. |
| Xie et al. (2003) | Board meetings are negatively associated with the level of earnings management, indicating that boards that meet regularly can be better monitors. |
| Anderson, Mansi and Reeb (2004) | Board independence and size is associated with lower debt financing costs, suggesting that creditors believe that more independent boards can be more effective monitors of the financial reporting process. |
| Vafeas (2005) | Board independence and size improve the quality of accounting information, measured by small earnings increases and timely recognition of losses. |
| Niu (2006) | Firms with more independent boards and more effective compensation policies have fewer discretionary accruals. |
| Abdul Rahman and Ali (2006) | A high proportion of non-executive directors cannot mitigate earnings management, possibly due management dominance over board matters or outside directors' lack of knowledge in company's affairs. |

| Authors | Results |
|---------------------------------|---|
| Abdul Rahman and Ali (2006) | The small board size has a significant impact on discretionary accruals. |
| Wright, Shaw and Guan (2006) | For both the US and the UK, the discretionary accruals are income-decreasing during the year immediately preceding an MBO. Earnings management is more aggressive for U.S. firms, despite the greater proportion of outside directors sitting in US boards. |
| Ebrahim (2007) | Abnormal accruals are negatively related to the percentage of independent directors on the board. There is no evidence between abnormal accruals and board activity. |
| Johnstone, Li and Rupley (2011) | Improvements in board characteristics such as size, number of meetings, the duality of CEO and chairman, independence and competence are positively associated with the timely remediation of material internal control weaknesses that have led to a material negative event such as fraud or restatement. |
| Masulis, Wang and Xie (2012) | Foreign independent directors have international background and expertise which improves the advisory function of boards. Foreign directors are more likely to miss board meetings, pay their CEOs excessively high compensation, are more likely to engage in intentional financial misreporting, and are less responsive in replacing poorly performing CEOs. |

After having considered how board effectiveness can impact earnings management, the audit committee characteristics are addressed next.

2.8.2 Audit Committee

The financial reporting task of the board is delegated to the audit committee. The responsibility of the audit committee includes the appointment of the auditor, compensation and oversight, and approval of any non-audit services performed. The committee must meet regularly with the auditors to review financial statements and examine management judgments, accounting estimates or differences of opinion between management and outside auditors concerning the application of the GAAP. The committee is also responsible for the supervision of the internal control systems and the internal audit. Thus audit committee effectiveness is a signal of the quality of financial reports. As explained next, the committee's effectiveness can be achieved by independence, expertise and activity.

Independent audit committees are those committees that are composed entirely of independent directors. The independence of the audit committee actually depends on the board size. This is because large boards have more representation of independent directors and, therefore, it is more likely to have an audit committee composed of totally independent directors (Klein, 2000). In order for audit committees to function effectively they must be independent of management so that internal and external auditors remain free of undue influences from corporate executives (Vicknair et al., 1993).

Since the primary function of an audit committee is to monitor the financial reporting process, there is a need to have competent and experienced directors, particularly in financial aspects. Outside directors who are financially competent, are effective as monitors in reducing earnings management (Xie et al., 2003; Choi et al., 2004). The percentage of audit committee members having expertise in accounting or financial management is positively related to the quality of financial reporting (Felo et al., 2003). Therefore an audit committee that is competent is more likely to be an effective monitor.

Finally, in order for the audit committee to be effective, it must not only be independent but it must also be active (Menon and Williams, 1994).

Studies on audit committee characteristics and their impact on earnings management are presented next.

Menon and Williams (1994) found that, when audit committees did not meet or met infrequently, they were less likely to perform their monitoring function properly. They also report that as the proportion of outside directors on the board increased, firms had audit committees that were more active.

Peasnell, Pope and Young (2000) provide evidence which suggests that, the mere presence of an audit committee did not appear to constrain earnings management. It was the interaction of the board composition and the audit committees

that controlled earnings management, possibly because audit committees often report to the full board thereby, facilitating outside director monitoring.

The results of Klein (2000) suggest that when the majority of audit committee members were outside directors and when a non-managing large shareholder was on the board's audit committee, earnings management was mitigated. For firms that had audit committees which comprised of less than a majority of independent directors, earnings management was not more pronounced as compared to firms with wholly independent committees.

Bedard et al. (2004) used a sample of companies with extreme measures of earnings management but found no significant relation between earnings management and audit committee activity.

Anderson, Mansi and Reeb (2004) provide evidence that audit committee independence, size and activity were associated with lower debt financing costs. These findings suggest that debt holders considered that, larger and active audit committees could provide greater monitoring of the financial accounting process.

Vafeas (2005) studied the relationship between audit committee independence, expertise and activity. He provides evidence that these audit committee characteristics improved the quality of accounting information, measured by small earnings increases and timely recognition of losses.

For a sample of Canadian firms, Niu (2006) show that, firms that were ranked highly in terms of governance quality, including audit committees that were fully independent and experienced, had fewer abnormal accruals. However, the most important factor that influenced the corresponding improvement of earnings quality was board independence and shareholder engagement.

Abdul Rahman and Ali (2006) provide evidence that, on average, large Malaysian public companies managed their earnings and effective audit committees did not mitigate these practices.

Ebrahim (2007) provides evidence that the value of abnormal accruals was negatively related to audit committee independence and activity.

 The results of Dhaliwal, Naiker and Navissi (2010) show that, audit committee members that were independent and with accounting expertise, had a positive impact on the quality of accruals. The evidence also shows that the job of the committee members was influenced by other finance experts, suggesting that the business and industry knowledge possessed by finance experts can complement the specific knowledge of accounting experts to promote accruals quality.

Carcello, Neal, Palmrose and Scholz (2011) examined the monitoring benefits of audit committee independence and expertise, conditional on whether the CEO is in the nomination committee. The authors found that when the CEO was involved in the director selection process, the audit committee's independence was compromised. The

results show that the monitoring benefits of independence and expertise were evident only when the CEO was not formally involved in selecting board members.

Johnstone, Li and Rupley (2011) investigated whether a firm that has gone through governance changes, subsequently remediates material internal control weaknesses that have led to a material negative event such as fraud or restatement. The results have shown that improvements in audit committee independence and expertise were positively associated with prompt remediation relating to control activities and monitoring.

Table 11 on the next page provides a summary of the results of the empirical studies on audit committee characteristics and earnings management.

Table 11: Results of Empirical Studies on Audit Committee Characteristics and Earnings Management (in chronological order)

| Authors | Results |
|---------------------------------|---|
| Menon and Williams (1994) | Audit committees that do not meet or meet infrequently are less likely to perform their monitoring function properly. When proportion of outside directors on the board increases, audit committees are more active. |
| Peasnell, Pope and Young (2000) | The mere presence of an audit committee does not constrain earnings management. The interaction of the board composition and the audit committees controls earnings management because audit committees report to the full board, thereby facilitating outside director monitoring. |
| Klein (2000) | A majority of outside membership and presence of a non-managing large shareholder on the audit committee makes a difference on earnings manipulation. For firms with less than majority independent audit committees, earnings management is not more pronounced than for firms with wholly independent committees. |
| Bedard et al. (2004) | There is no significant relation between earnings management and audit committee activity. |
| Anderson, Mansi and Reeb (2004) | Audit committee independence, size and activity are associated with lower debt financing costs. Debt holders consider that larger and active audit committees provide greater monitoring of the financial accounting process. |
| Vafeas (2005) | Audit committee independence, expertise and activity improve the quality of accounting information, measured by small earnings increases and timely recognition of losses. |
| Niu (2006) | Firms that are ranked highly in terms of audit committee independence, have fewer abnormal accruals. |

| Authors | Results |
|--|--|
| Niu (2006) | The most important factor that influences earnings quality is board independence and shareholder engagement. |
| Abdul Rahman and Ali (2006) | Audit committee independence and competence does not mitigate earnings management as measured by discretionary accruals. |
| Ebrahim (2007) | The absolute value of abnormal accruals is negatively related to audit committee independence and activity. |
| Dhaliwal, Naiker and Navissi (2010) | Audit committee independence and expertise has a positive impact on the quality of accruals. The business and industry knowledge of other finance experts complements the accounting knowledge of audit committee members to promote accruals quality. |
| Carcello, Neal, Palmrose and Scholz (2011) | When the CEO is involved in the director selection process, the audit committee independence is compromised. The monitoring benefits of independence and expertise are found only when the CEO is not involved in selecting board members. |
| Johnstone, Li and Rupley (2011) | Improvements in audit committee independence and expertise are positively associated with prompt remediation of material internal control weaknesses that have led to fraud or restatement. |

After having considered how audit committee characteristics can impact earnings management, the effect of auditing is addressed next

2.8.3 Auditing

Jensen and Meckling (1976) argue that the practice of providing audited financial statements leads to real cost savings. As a result of the audit, external parties have more reliable information about a firm, which enables the organization to attract funds at a lower cost than would otherwise be possible (Deegan and Unerman, 2006, p. 221).

External auditors are experts on financial accounting and reporting according to the GAAP. Audit quality reflects the auditors' ability to discover and report to the audit committee any significant discrepancies from the GAAP. The audit firm should work for the interests of the public, not the client. Earnings management is less likely in companies audited by a Big auditing firm, because Big auditing firms are expected to be more independent, more experienced and provide a higher-quality audit process (DeAngelo, 1981).

Studies on the quality of the audit and its impact on earnings management are presented next.

Becker et al. (1998) found that clients of non-Big Six auditing firms reported more income increasing discretionary accruals than the discretionary accruals reported by clients of Big Six auditing firms.

Chen et al. (2001) report that, Chinese companies engaging in earnings management in order to meet the regulatory requirements received modified audit opinions as opposed to other companies, suggesting that auditors did not side with customers.

Gaver and Paterson (2001) examined the association between monitoring by auditors and actuaries, and earnings management in insurance companies. Their results indicate that under-reserving by weak insurers was essentially eliminated when the firms used auditors and actuaries that were both from Big Six accounting firms.

Wright, Shaw and Guan (2006) investigated whether the audit function has an impact on earnings management practices, using US and UK companies. In the US auditors are appointed by the board of directors, whereas in the UK auditors are appointed by and report directly to the shareholders. The authors examined whether managers manage earnings downward prior to a management buyout. The results indicate that for both countries, the discretionary accruals were income-decreasing during the year preceding the management buyout, but these practices were more aggressive in the US. These results suggest that auditors cannot alleviate managerial behaviour driven by self-interest.

Ebrahim (2007) found a positive relation between earnings quality and outside audit, consistent with the argument that Big auditing firms are expected to be more independent and provide a higher-quality audit process.

Chen, Chen, Lobo and Wang (2011) examined the effects of audit quality on earnings management for Chinese firms. Audit firm size was used as a proxy for audit quality and discretionary accruals as a proxy for earnings management. They found significantly lower level of earnings management for firms audited by Top Eight versus non-Top Eight auditors.

Boone, Khurana and Raman (2012) investigated whether the requirements under the Sarbanes-Oxley Act to have only four large auditors greatly reduces auditors' effectiveness. The results suggest that higher concentration at the local level was associated with greater auditor tolerance for earnings management and that clients with earnings below the earnings target utilized more income-increasing discretionary accruals to meet or beat the earnings benchmark. The findings show that higher concentration is associated with lower audit quality.

Francis, Michas and Seavey (2013) also document that, in countries where the Big Four have a greater market share, earnings quality is lower. More specifically, accruals were found to be larger, suggesting greater discretion to manage earnings, firms were more likely to report profits and less timely loss recognition. Thus it appears that market concentration within the dominant Big Four group is potentially harmful to earnings quality.

Since large accounting firms have internal policies that attempt to achieve quality and consistency across offices, Francis, Michas and Yu (2013) hypothesized that office size can affect the quality of the services offered. Using restatements to measure audit

quality, the results indicate that small audit offices had more low quality audits than large offices, and this holds for both the Big Four firms and the largest non–Big Four firms which also have multi-office practices. The evidence implies that these firm-wide mechanisms do not fully achieve uniform audit quality, particularly for smaller offices.

Another major concern about auditing is whether auditors' independence is compromised by tenure or by non-audit services offered to clients. It can be argued that longer auditor tenure is associated with greater acquired expertise, in the sense that auditors have a better understanding of their customers' business affairs. On the other hand, the close relationship developed between auditor and clients may lead to an impairment of independence and objectivity, in that auditors may satisfy the client's demands in order to continue to secure a stream of future audit fees. Furthermore, the provision of substantial amounts of non-audit services to clients may make it more likely that auditors concede to the wishes of the client when difficult judgments are made. Usually, independence is ensured by separating the duties between auditors and tax and consulting services experts.

It is possible however, that auditors have incentives to provide high quality services in order to protect their reputational capital and avoid losses of future revenue streams. Therefore, retaining a single client is just not a reasonable incentive for violating independence standards.

Larcker and Richardson (2004) found little evidence of a positive relation between audit fees and measures of accruals. They also found a positive association

between non-audit fees and unexpected accruals but only for an 8.5% of the sample. It was also observed that these firms had weaker corporate governance relative to the remaining firms i.e. lower institutional holdings, fewer independent directors and higher insider holdings. Thus, corporate governance is a key factor for understanding accrual choices, as opposed to these choices simply being a function of fees paid to auditors. The results are therefore consistent with reputation concerns being the primary determinant of auditor behaviour with respect to limiting unusual accounting choices of client firms.

Using discretionary accruals as a proxy for earnings quality, Chen, Lin and Lin (2008) found that earnings quality was improved with audit partner tenure. These findings suggest that earnings quality is not impaired with audit partner tenure. They also found that discretionary accruals decreased significantly with audit firm tenure, again suggesting that firm rotation will not impair earnings quality. The results are generally consistent with the argument that requiring audit partner rotation or audit firm rotation in addition to partner rotation could have adverse effects on earnings quality.

Basioudis, Papakonstantinou and Geiger (2008) found that, financially stressed companies with high audit fees were more likely to receive a going concern, modified audit opinion, whereas companies with high non-audit fees were less likely to receive a going-concern modified audit opinion. This evidence suggests that high non-audit fees have a detrimental effect on going-concern reporting judgments.

Using abnormal accruals as proxies for audit quality, Chi, Huang, Liao and Xie (2009) found that, in Taiwan, the audit quality of companies subject to mandatory partner rotation was not significantly different from the audit quality of companies not subject to such requirement. In fact, the audit quality of companies subject to mandatory partner rotation under new audit partners was significantly lower than the audit quality of these same companies one year earlier under old audit partners. The findings, therefore, do not support the belief that mandatory audit partner rotation enhances audit quality.

The results of Gul, Fung and Jaggi (2009) suggest that, the association between shorter auditor tenure and lower quality of reported earnings was weaker for firms audited by industry specialists. This evidence suggests that auditors with industry expertise are more likely to detect irregularities and misrepresentations and provide higher quality audits, even if auditors lack client-specific knowledge as a result of short auditor–client relationships.

Lim and Tan (2010) hypothesized that audit quality is associated with two issues: auditor expertise and economic incentives. Using accrual quality as a measure of audit quality, the authors provide evidence that firms audited by specialists had higher audit quality with extended auditor tenure and that this relation was weakened by auditors' fee dependence on clients. The results suggest that focusing on either specialization or fee dependence provides a less complete picture of whether auditor tenure improves or impairs audit quality.

Patterson and Valencia (2011) provide evidence that recurring tax services provided by the auditor were negatively related to restatements. These results suggest that better knowledge of the customers' business helps to improve the audit quality. In contrast, non-recurring tax engagements were positively related to restatements, showing that higher non audit fees have a larger net detrimental effect on auditor independence.

The results of Markelevich and Rosner (2013) show that, firms which paid significantly higher non audit fees and total fees were more likely to be sanctioned for issuing materially misstated or fraudulent financial statements. The findings that firms sanctioned for fraud paid significantly higher non-audit and total fees suggest that economic bonds lead to impaired auditor independence.

Table 12 on the next page provides a summary of the results of the empirical studies on auditing and earnings management.

Table 12: Results of Empirical Studies on Auditing and Earnings Management (in chronological order)

| Authors | Results |
|-------------------------------|--|
| Becker et al. (1998) | Clients of non-Big Six auditing firms report more income increasing discretionary accruals than the clients of Big Six auditing firms. |
| Chen et al. (2001) | Companies engaging in earnings management receive modified audit opinions, suggesting that auditors do not side with customers. |
| Gaver and Paterson (2001) | Under-reserving by weak insurers is eliminated when the firms use auditors and actuaries that are from Big Six accounting firms. |
| Larcker and Richardson (2004) | There is little evidence of a positive relation between audit fees and discretionary accruals. There is a positive association between non-audit fees and unexpected accruals but only for small percentage of the sample. Reputation concerns are the primary determinant of auditor behaviour. |
| Wright, Shaw and Guan (2006) | Both US and UK firms report income-decreasing discretionary during the year preceding an MBO, but these practices are more aggressive in the US. Auditors cannot alleviate managerial behaviour driven by self-interest. |
| Ebrahim (2007) | There is a positive relation between earnings quality and outside audit provided by Big auditing firms. |
| Chen, Lin and Lin (2008) | Discretionary accruals decrease significantly with audit partner tenure. Discretionary accruals also decrease significantly with audit firm tenure, suggesting that non-rotation will not impair earnings quality. |

| Authors | Results |
|---|---|
| Basioudis, Papakonstantinou and Geiger (2008) | Financially stressed companies with high audit fees are more likely to receive a going concern, modified audit opinion as opposed to companies with high non-audit fees. High non-audit fees have a detrimental effect on going-concern reporting judgments. |
| Chi, Huang, Liao and Xie (2009) | The audit quality of companies subject to mandatory partner rotation is not significantly different from the audit quality of companies not subject to such requirement. The audit quality of companies that changed auditors is lower under the new audit partners. Audit quality increases with audit partner tenure. |
| Gul, Fung and Jaggi (2009) | The association between shorter auditor tenure and lower quality of reported earnings is weaker for firms audited by industry specialists. Auditors with industry expertise provide higher quality audits despite the lack client-specific knowledge. |
| Lim and Tan (2010) | Firms audited by specialists have relatively higher audit quality with extended auditor tenure and this relation is weakened by auditors' fee dependence on clients. |
| Chen, Chen, Lobo and Wang (2011) | For Chinese firms, earnings management is lower when these are audited by Top Eight versus non-Top Eight auditors. |
| Patterson and Valencia (2011) | Recurring tax services provided by the auditor are negatively related to restatements. Higher non-audit fees are positively related to restatements, showing compromise of auditor independence. |

| Authors | Results |
|---|---|
| Boone, Khurana and Raman (2012) | Audit market concentration is associated with greater auditor tolerance for earnings management. |
| Francis, Michas and Seavey (2013) | In countries where the Big Four auditors have a greater market share, earnings quality is lower. Market concentration within the dominant Big Four group is potentially harmful to earnings quality. |
| Francis, Michas and Yu (2013) | Using restatements as a measure of audit quality, small audit offices have more low quality audits than large offices, and this holds for both the Big Four firms and the largest non–Big Four firms. Firm-wide mechanisms do not achieve uniform audit quality across offices, particularly smaller ones. |
| Markelevich and Rosner (2013) | Firms that pay significantly higher non-audit fees and total fees are more likely to be sanctioned for issuing materially misstated or fraudulent financial statements. Economic bonds lead to impaired auditor independence. |

After having considered the effect of auditing on earnings management, the issue of corporate ownership is addressed next.

2.8.4 Corporate Ownership

Corporate ownership systems can be can be classified into two categories: dispersed and concentrated ownership systems (Coffee, 2005). As explained next, ownership concentration, as well as inside ownership can act as a disincentive for earnings management.

2.8.4.1 Ownership Concentration

In concentrated ownership systems, provision of finance comes from families or other dominant providers of long-term finance such as banks or governments (Zysman, 1983, cited in Deegan and Unerman, p.102). In family owned businesses, the owners have access to detailed internal management accounting information, so there is no need for financial accounts to provide information to aid investment decision making by shareholders. Banks may also develop closer relationships, such as having a representative on the board of companies to whom they are major lenders, and these representatives are provided with the detailed accounting information available to all board members. Given that the predominant providers of finance are effectively “insiders”, there is little pressure for financial accounting to provide information to aid external investment decisions (Nobes, 1998, cited in Deegan and Unerman, 2006, p. 142).

In dispersed ownership systems, external shareholders are a significant source of finance. As these external shareholders are not involved in the management of the company, they need to be provided with financial accounting information to help them make their investment decisions.

Outside shareholders that monitor managerial actions obtain a benefit depending on the percentage of shares owned but have to bear all the costs of monitoring. Therefore, the incentive for non-controlling shareholders to closely monitor management is small. However, outside, block-holders, who own at least 5% of a firm's outstanding voting stocks, have more incentives to monitor the actions of managers because monitoring will produce a bigger share of benefits (Jensen and Meckling, 1976).

The existence of outside block-holders may however put pressure on managers to manage earnings in order to report a favourable financial performance. This is because outside block-holders pose a bigger threat of intervention when management is perceived to be underperforming (Holderness and Sheehan, 1988). Intervention may take the form of initiating or supporting proposals that restrict managements' decision rights, limit managers' ability to carry out policy and, at the extreme, dismiss management (Barclay and Holderness, 1991). Therefore, managers in firms with outside block-holders may feel more pressure to manage earnings especially when their firms experience poor performance.

Evidence on the effect of ownership concentration on earnings management is presented below.

Klassen (1997) provides evidence which suggests that, for firms with higher tax rates and more concentrated ownership, managers took larger losses or smaller gains from the sale of major asset groups, as opposed to widely held firms. This is consistent with managers being able to communicate information about their performance via private channels rather than through reported profitability.

Beatty and Petroni (1999) hypothesized that private banks will report small losses and small declines in earnings more frequently than small profits and small increases in earnings. Since in private banks managers are assumed to have fewer incentives to manage earnings, the reported profit streams of privately-held banks were the benchmark for comparison to public banks. The results of the study support that, private banks were significantly more likely to report losses or declines in earnings than public banks with similar performance. In public banks, managers were found to have a greater incentive to manage reported earnings via accruals.

The evidence of Yeo, Tan, Ho and Chen (2002) shows a strong negative relationship between external, unrelated block-holdings and the level of discretionary accruals. This is consistent with the role of a large shareholder acting as monitor, which suggests less opportunity for earnings management.

Berger and Bonacorsi Di Patti (2003) examined whether banks' profit efficiency is

affected by the ownership structure. Profit efficiency was defined as the ratio of costs over revenues. The results show that, profit efficiency was responsive to the ownership structure of the firm. The evidence suggests that large institutional holders had favourable monitoring effects that reduced agency costs, although large individual investors did not.

For a sample of Canadian firms, Niu (2006) found that, firms with powerful shareholders had fewer discretionary accruals, suggesting that this factor may be effective in monitoring managerial opportunism. Particularly, strong shareholder rights seemed to be the one of the most important factors in influencing the improvement of earnings quality, as the quality of governance effectiveness increased.

For a sample of family owned Taiwanese firms, Chin et al. (2006) hypothesized that high ownership concentration provides controlling owners with incentives to manage mandatory earnings forecasts so as to mask their perquisite consumption and at the same time secure higher share prices for both the firm and themselves. The Taiwanese regulations require that earnings forecasts included in the prospectuses should not deviate from reported earnings by more than 20%. The empirical results showed that the mandatory earnings forecasts were more biased when the ownership concentration was high. Firms tended to produce optimistic forecasts in order to manage the perceptions of minority investors. These forecasts were however revised towards the end of the year in order to avoid the 20% regulatory threshold.

Similar evidence is reported by Abdul Rahman and Ali (2006) who investigated whether ownership concentration is effective in controlling earnings management in family owned Malaysian public companies. The findings suggest that, these companies engaged in earnings management and the concentrated ownership did not restrain such practices, consistent with the argument that controlling owners may encourage profit manipulation to maximize their own wealth.

Zhong et al. (2007) predicted that for firms with declining earnings, the existence of block-holders should provide incentives for earnings management. It was found that firms with declining earnings reported significantly income increasing discretionary accruals. It was also found that, the existence of outside block-holders did not significantly affect earnings management for the sample firms with zero or positive earnings. The results were different after 2001, when the Sarbanes Oxley Act was passed. The new regulations on corporate governance and financial reporting may have changed the cost and benefit structure of earnings management for both management and outside block-holders and consequently have weakened or changed the association between outside block-holders and earnings management for the sample periods of 2002 and 2003.

Using discretionary accruals, earnings persistence and earnings response coefficient as measures of earnings quality, Ali, Chen and Radhakrishnan (2007) found that reported earnings were of better quality for family US firms as compared to non-family US firms. This finding is consistent with less severe agency problems and hence there is less manipulation of earnings for opportunistic reasons. There is also evidence

that family firms were more likely to disclose bad news in a more timely manner through management earnings forecasts.

Ayers, Ramalingegowda and Yeung (2011) predicted that the monitoring effect of institutional ownership on financial reporting will depend on the geographic distance between the firm and the monitoring institution. Consistent with expectations, the authors found a negative relationship between the magnitude of abnormal accruals and local monitoring institutional ownership. These results suggest that local monitoring institutions are more active and thus limit managerial flexibility for opportunistic financial reporting.

Similar evidence is provided by Chhaochharia, Kumar and Niessen-Ruenzi (2012). These authors also provide evidence that local institutional investors were effective monitors of corporate behaviour. Firms with high local ownership had better internal governance, were more profitable and were less likely to manage their earnings aggressively via accruals.

Ramalingegowda and Yu (2012) also document that, higher ownership by monitoring institutions was associated with more conservative financial reporting. Financial reporting conservatism was defined as the timely recognition of losses. Conservatism reduced managers' incentive and ability to overstate earnings.

Table 13 on the next page provides a summary of the results of the empirical studies on ownership concentration and earnings management.

Table 13: Results of Empirical Studies on Ownership Concentration and Earnings Management (in chronological order)

| Authors | Results |
|--------------------------------------|---|
| Klassen (1997) | Managers of firms with higher tax rates and more concentrated ownership take larger losses or smaller gains from sales of major assets. |
| Beatty and Petroni (1999) | Private banks, with earnings or changes in earnings near zero are more likely to report losses or declines in earnings than public banks with similar performance. In public banks, managers manage reported earnings via accruals. |
| Yeo, Tan, Ho and Chen (2002) | There is strong positive relationship between external, unrelated block-holdings and the informativeness of earnings. Large shareholders are better monitors, suggesting less opportunity for earnings management. |
| Berger and Bonacorsi Di Patti (2003) | Banks' profit efficiency is responsive to the ownership structure. Large institutional holders have favourable monitoring effects that reduce agency costs, whereas large individual investors do not. |
| Niu (2006) | Firms with powerful shareholders have fewer discretionary accruals. Strong shareholder rights seemed to be the one of the most important factors in influencing earnings quality. |
| Chin et al. (2006) | Concentrated family ownership provides controlling owners with incentives to manage mandatory earnings forecasts so as to mask their perquisite consumption and at the same time secure higher share prices for both the firm and themselves. |
| Abdul Rahman and Ali (2006) | In large Malaysian public companies that are family owned or controlled, earnings management is not restrained, consistent with controlling owners encouraging profit manipulation to maximize their own wealth. |

| Authors | Results |
|--|---|
| Zhong et al. (2007) | Firms with declining earnings and block-owners report significantly income increasing discretionary accruals in the pre-SOX period. After 2001, the relationship between outside block-holders and earnings management is weakened. |
| Ali, Chen and Radhakrishnan (2007) | Reported earnings are of better quality for family firms as compared to non-family firms. Family firms are more likely to disclose bad news in a timely manner, through management earnings forecasts. |
| Ayers, Ramalingegowda and Yeung (2011) | There is a negative relationship between the magnitude of abnormal accruals and local institutional ownership. Local institutional owners are more active and better monitors of financial reporting. |
| Chhaochharia, Kumar and Niessen-Ruenzi (2012) | Local institutional investors are effective monitors of corporate behaviour. Firms with high local ownership have better internal governance, are more profitable and are less likely to manage their earnings aggressively via accruals. |
| Ramalingegowda and Yu (2012) | Higher ownership by monitoring institutional owners is associated with more conservative financial reporting. |

After having considered the effect of ownership concentration on earnings management, the impact of inside ownership is addressed next.

2.8.4.2 Inside Ownership

Inside ownership is viewed as a governance mechanism that can help reduce agency costs. Managers with low firm ownership have greater incentives to manipulate accounting numbers in order to satisfy the requirements of their accounting based compensation contracts (Jensen and Meckling, 1976). In addition, directors with little ownership in the firm cannot effectively monitor and discipline the managers (Jensen, 1989). The use of equity compensation is a way to give an executive an ownership stake in the firm, thereby aligning executive and shareholder incentives (Jensen and Meckling, 1976). Evidence on the effect of inside ownership on earnings management is presented next.

Jensen and Meckling (1976) hypothesized that agency costs are higher for firms whose managers own none of the firm's equity and agency costs vary inversely with managerial ownership and ownership concentration. The authors investigated a sample of firms, including firms whose management owned 100% of equity and firms managed by outsiders with no equity stake. As predicted, the agency costs were found to be higher for firms that were not 100% owned by their managers, and these costs decreased with an increase in managerial ownership.

Dempsey et al. (1993) provide evidence which suggests that, large ownership by management was the underlying factor that reduced earnings management. The existence of outside block-holders did not seem to significantly affect earnings management.

Warfield et al. (1995) also found a negative relation between managerial stockholdings and the value of abnormal accruals.

Weber (2006) provides results which indicate that the sensitivity arising from stock holdings was associated with abnormal accrual usage and the relation between the two variables was consistent with income-smoothing. Since smoothed earnings are associated with higher stock valuations the findings suggest that wealth exposure arising from stock ownership may be effective in long-term alignment of the CEO's interests and shareholders.

Niu (2006) examined the relationship between quality of earnings and inside ownership for Canadian firms. The author hypothesized that firms with a higher level of board (management) share ownership would have less abnormal accruals and more informative earnings. Mandatory shareholding by board and management was found to help produce more informative earnings.

For a sample of Taiwanese listed firms, Yang, Lai and Tan (2008) found that discretionary accruals first increased and then decreased with executive ownership. The

results suggest that equity stake owned by top officers of a firm should be encouraged in order to reduce agency costs, thus enhancing information content of earnings.

Banderlippe II (2009) documents evidence for the alignment hypothesis for a sample of listed companies in Philippines. The findings of this study support that independent directors' expertise coupled with managerial ownership were significant enough to limit earnings management.

For a sample of Portuguese companies, Alves (2012) predicted that, a firm's ownership structure, including managerial ownership, may create an incentive or alleviate earnings management. The evidence shows that discretionary accruals were negatively related to managerial ownership. This result is consistent with the argument that when managers have an equity interest in the firm, their interests are aligned with those of shareholders.

Lee and Hwang (2012) provide evidence that discretionary accruals were positively related to low insider ownership, but this relationship changed when the level of insider ownership was high. This result suggests that insider ownership, at its high levels, can mitigate managers' opportunistic earnings management behaviour.

Fauzi and Locke (2012) examined the impact of ownership structures on firm performance in New Zealand's listed firms. Overall, the evidence shows that managerial ownership was positively related to firm performance, suggesting an alignment of

interests.

Table 14 on the next page provides a summary of the results of the empirical studies on inside ownership and earnings management.

Table 14: Results of Empirical Studies on Inside Ownership and Earnings Management (in chronological order)

| Authors | Results |
|----------------------------|--|
| Jensen and Meckling (1976) | The agency costs are higher for firms that are not 100% owned by their managers and these costs decrease with an increase in managerial ownership. |
| Dempsey et al. (1993) | Large ownership by management is the underlying factor that reduces earnings management. |
| Warfield et al. (1995) | There is a negative relation between managerial stockholdings and abnormal accruals. |
| Weber (2006) | Stock-based compensation provides managers with incentives to smooth income. Since smoothing is associated with higher stock valuations, inside stock ownership may be effective in long-term alignment of the CEO's interests and shareholders. |
| Niu (2006) | Inside shareholding by board and management helps to produce more informative earnings. |
| Yang, Lai and Tan (2008) | Discretionary accruals first increase and then decrease with executive ownership. Equity stake owned by top officers of a firm reduces the agency cost, thus enhancing quality of earnings. |
| Banderlippe II (2009) | Independent directors' expertise coupled with managerial ownership are significant enough to limit earnings management. |
| Alvez (2012) | Discretionary accruals are negatively related to managerial ownership. When managers have an equity interest in the firm, their interests are aligned with those of shareholders. |
| Lee and Hwang (2012) | When the level of insider ownership is high, it can mitigate managers' opportunistic earnings management behaviour. |

| Authors | Results |
|---------------------------|---|
| Fauzi and Locke (2012) | Managerial ownership is positively related to firm performance, suggesting an alignment of interests. |

2.9 Summary

Earnings management occurs when managers use their discretion so as to change the reported profits at will. Earnings management practices can be classified into two categories: practices that fall within the GAAP and practices that fall outside the GAAP. Accounting practices that fall outside the GAAP are fraudulent, whereas practices within the GAAP are legal, as long as managers can provide reasonable justification for their choices. The objective of earnings management is to maximize, minimize or smooth profits, and this depends on the underlying motivation to manage the accounts. Depending on what accounting item is used, earnings management can be classified as real or cosmetic. Real earnings management can be achieved by timing the recognition of events whereas cosmetic practices involve discretion over accounting method choices or accounting estimates. Earnings management has an efficiency perspective in the sense that it can be used as a vehicle of communicating managers' private information to outsiders. Alternatively, earnings management can be used for opportunistic reasons.

In the literature, there is empirical evidence that, where accounting alternatives exist, managers will have an incentive to manage earnings so as to: secure a cash bonus; avoid accounting based debt covenant violations; avoid political scrutiny from external groups such as the government, employees; job security concerns; stock price; implicit contracts; and taxation considerations.

For firms with cash bonus schemes that are based on accounting reported profits, the empirical evidence suggests that, managers adopt income increasing practices in order to secure their variable compensation. The results of empirical studies on stock based compensation are mixed. Some studies provide evidence that when variable compensation is tied to a firm's shares, in the form of stock options, managers have incentives to income maximize so as to "drive up" the stock price and maximize their personal wealth. In contrast, other empirical results support that stock compensation is effective in aligning managerial interests with those of shareholders.

Overall, the evidence suggests that firms engage in earnings management in order to avoid debt covenant violations that are based on accounting profits. There is however some evidence that lenders, particularly banks, may demand conservatism on behalf of lenders as a condition of providing funds at a lower cost.

There are empirical studies that support that managers engage in earnings management in order to manage the perceptions of suppliers or customers about the firm's prospects. There is also evidence that, where customers or suppliers are large so that they have bargaining power, they will demand a more timely recognition of losses. In addition, if customers or suppliers expect opportunism on behalf of the other party, they may design explicit contracts with limitations on opportunistic behavior.

Empirical results also provide support that managers will income minimize in order to avoid regulatory intervention and combat labor demands. Unlike other firms,

banks have an incentive to manage income upwards in order to meet the minimum regulatory capital adequacy ratio. Since accounting profits are included in the numerator of this ratio, one way to increase it is through profitability.

When tax income is equal to book income, firms have a motive to reduce profits in order to reduce tax. Under the GAAP, taxable income is not determined based on book profits. Hence firms can minimize their tax liability and use discretion to increase accounting profits. The tax expense then becomes an opportunity to manage profits. This can be done by understating the deferred tax valuation allowance or the tax contingent liability. It can also be done through tax planning i.e. recognition of permanently tax deductible items for which no tax is recorded. As opposed to other firms, banks choose to sacrifice the tax benefits in order to meet the minimum regulatory capital levels. For firms with concentrated ownership, managers choose to reduce the profits so as to reduce the tax paid since their performance can be judged via other communication channels.

Overall, the evidence suggests that managers manage earnings driven by job security concerns. Particularly, when there is a change in CEO, the incoming executive income minimizes so as to save earnings for the future and take the credit.

The empirical results on earnings management and stock price effect are mixed. Some studies provide support that investors and analysts can see through opportunistic

practices. Other studies show that the market responds inefficiently to unexpected earnings announcements.

In the literature, there is empirical evidence that, the corporate the governance mechanisms which can limit opportunistic behaviour and protect stakeholders' interests include: effective board of directors; effective audit committees; auditing; and the structure of corporate ownership.

Board effectiveness can be ensured by independence, expertise, size and meetings. The evidence on board characteristics shows that the presence of independent directors can act as a controlling device on earnings management. There is also some support that board activity and size can help reduce such practices.

Audit committee effectiveness can be ensured by independence, expertise and activity. For audit committees, the literature supports that the quality of accounting information is improved when the committee is independent and comprises of experts. Audit committee size and activity can also serve as a controlling mechanism.

Audit quality is improved when auditors are independent and experienced. The evidence indicates that Big accounting firms offer a higher quality of audit, thus improving the quality of accounting information. In countries where Big audit firms have a higher market share, tolerance for earnings managed is increased. Audit tenure does not impair auditor independence, consistent with auditors having a better knowledge of

their customers' business affairs. High non-audit fees do impair the quality of auditing and the accounting information.

Block ownership of a firm's stock provides owners with more incentives to monitor managerial actions, because monitoring will produce a bigger share of benefits. The empirical evidence suggests that, firms with more concentrated ownership or high institutional ownership are associated with more conservative accounting. There is also support that, where concentrated ownership is held by family members, earnings management is not constrained, and this creates an agency cost between controlling owners and minority shareholders.

Overall, the empirical evidence suggests that managers are utility maximizers, and for this reason they will behave opportunistically. Managers engage in earnings management in order to maximize their compensation and secure their jobs. But when earnings are managed upwards, the firm has a benefit as well; investors are satisfied, the debt covenants are met and the relations with suppliers and customers are good. Consequently, except for political costs, when managers use their discretion to increase reported profits in order to maximize their utility (manipulate against the firm) at the same time they produce benefits for the firm. For banks, maintenance of a minimum regulatory capital ratio also creates an incentive to manage earnings upwards. Hence, when bank managers manipulate for themselves, they also manipulate for the bank because violation of the capital requirements results in regulatory intervention and possibly bank closure. Finally, to the extent that earnings

management is not used as a vehicle for communicating inside information, corporate governance variables can act as controlling mechanisms on opportunistic practices.

In summary, there are two theories that dominate the literature: the theory on *incentives* and the theory on *disincentives* for earnings management. The incentives to manage accounting profits include: compensation, lending and implicit contracts; political costs; stock price effect; fear of dismissal; and taxation. The disincentives for earnings management include: the board of directors; audit committees; the quality of external audit; and corporate ownership. Finally, under the GAAP, accounting options are given for presenting financial performance, thus creating *opportunities* for earnings management.

Based on the comprehensive review of the literature, the following gap has been identified: most of the empirical studies examine *either* the incentives *or* the disincentives for earnings management. The *opportunities* for earnings management include income statement variables over which managers can exercise discretion. In order to test for earnings management, authors usually use regressions where the independent variables are the incentives or the disincentives for earnings management; the dependent variable is the opportunity for earnings management. To the best of the researcher's knowledge, there are no studies that have examined *both* incentives and disincentives for earnings management (see tables 15 and 16 that follow).

Table 15: Empirical Evidence on Incentives and Opportunities for Earnings

Management

| Incentives for Earnings Management (independent variables) | Opportunities for Earnings Management (dependent variables) | Studies |
|---|---|---|
| Secure a cash bonus | Depreciation and amortization; defined benefit plans; investment tax credits; accruals; accounting policy changes; R & D; provision for bad debts; timing the sale of assets; early debt retirement; inventory valuation; extraordinary items | Haggerman (1979); Healy (1985); Lewellen, Loderer and Martin (1987); McNichols and Wilson (1988); Haw, Jung and Lilien (1991); Skinner (1993); Clinch and Magliolo (1993); Gaver, Gaver and Austin (1993); Holthausen, Larcker and Sloan (1995); Guidry, Leone and Rock (1999); Keating, Zimmerman and Simon (1999); Gao and Shrieves (2002); Shuto (2007); Dechow, Myers and Shakespeare (2010) |
| Maximize stock based compensation | Accruals; revenue misstatement; timing the sale of assets. | Gao and Shrieves (2002); Baker, Collins and Reitenga (2003); Cheng and Warfield (2004); Bergstresser and Philippon (2006); Ronen, Tzur and Yaari (2006); Balachandran, Chalmers and Haman (2008); Cullinan, Du and Wright (2008); Dechow, Myers and Shakespeare (2010) |
| Avoid violations of covenants in debt contracts | Defined pension plans; inventory valuation; accruals; deferred tax valuation allowance; accounting method changes; timely loss recognition; restructuring; asset write downs. | Haw, Jung and Lilien (1991); Sweeney (1994); DeFond and Jiambalvo (1994); DeAngelo, DeAngelo and Skinner (1994); Dechow, Sloan, and Sweeney (1996); Miller and Skinner (1998); Jaggi and Lee (2002); Dichev and Skinner (2002); Beatty and Weber (2003); Choi (2007); Beatty, Weber and Yu (2008) Zhang (2008); Tan (2013); Alissa, Bonsall, Koharki and Penn Jr. (2013); Jung, Trom and Yang (2013). |

| Incentives for Earnings Management (independent variables) | Opportunities for Earnings Management (dependent variables) | Studies |
|---|---|--|
| Manage the perceptions of customers and suppliers | inventory valuation; depreciation; accruals; timely loss recognition; | Bowen DuCharme and Schores (1995); Burgstahler and Dichev (1997); Matsumoto (2002); Raman and Shahrur (2008); Hui, Klasa and Yeung (2012); Dou, Hope and Thomas (2013); Costello (2013). |
| Avoid regulatory attention and intervention | Current cost accounting; changes in accounting methods; accruals restructurings; real investment decisions. | Watts and Zimmerman (1978); Hagerman and Zmijewski (1979); Liberty and Zimmerman (1986); Sutton (1988); Jones (1991); Cahan (1992); Bowen DuCharme and Schores (1995); Bens and Johnston (2009); Chaney, Faccio and Parsley (2011); Wong and Young (2012); Cohen, Dey and Lys (2013); Bova (2013). |
| Increase the capital adequacy ratio (for banks). | Real securities gains and losses; loan loss provisions; pension plans; timing the sale of assets; stock issues; loan charge off's; dividend reduction; accruals; tax valuation allowance. | Moyer (1990); Scholes, Wilson and Wolfson (1990); Haw, Jung and Lilien (1991); Warfield and Linsmeier (1992); Clinch and Magliolo (1993); Collins, Schakelford and Wahlen (1995); Bernard, Merton and Palepu (1995); Beatty, Chamberlain and Magliolo (1995); Kim and Kross (1998); Ahmed, Takeda, and Shawn (1998); Kato, Kunimura and Yoshida (2001); Schrand and Wong (2003); Ramesh and Revsine (2011); Beck and Narayanamoorthy (2013). |
| Job security concerns | Accruals; stock price; restructuring; choice of accounting methods; loan loss provisions; auditor resignations. | Moore (1973); Coughlan and Schmidt (1985); Elliot and Shaw (1988); DeAngelo (1988); Murphy and Zimmerman (1993); Pourciau (1993); Fudenberg and Tirole (1995). |

| Incentives for Earnings Management (independent variables) | Opportunities for Earnings Management (dependent variables) | Studies |
|---|---|---|
| Job security concerns | Accruals; stock price; restructuring; choice of accounting methods; loan loss provisions; auditor resignations. | DeFond and Park (1997); DeFond and Park (1999); Wells 2002; Kanagaretnam, Lobo and Mathieu (2003); Engel, Hayes and Wang (2003); Menon and Williams (2008). |
| Stock price effect | Restructurings; real securities gains and losses; accruals; loan loss provisions; extraordinary items; earnings forecasts; classificatory earnings management; defined benefit plans; tax contingent liability; tax valuation allowance; tax expense. | Elliot and Shaw (1988); Barth, Beaver and Wolfson (1990); Clarkson, Dontoh, Richardson, and Sefcik (1992) Friedlan (1994); Liu and Ryan (1995); Beaver and Engel (1996); Sloan (1996); Subramanyam (1996); Liu, Ryan, and Whalen (1997); Xie (2001); Burgstahler, Jiambalvo and Shelvin (2002); Dhaliwal et al. (2004) Chin et. al. (2006) Jaggi, Chin, Lin, and Lee (2006); McVay (2006); Picconi (2006); Frank and Rego (2006); Kerstein and Rai (2007); Ball and Shivakumar (2008); Gupta and Laux (2008); Gleason and Mills (2008); Cook et al. (2008); Cazier et al. (2010); Callen, Khan and Lu (2013). |

Table 16: Empirical Evidence on Disincentives and Opportunities for earnings management

| Disincentives for Earnings Management (independent variables) | Opportunities for Earnings Management (dependent variables) | Studies |
|--|--|--|
| Effective board of directors: independence; size; meetings; CEO sits in the nomination committee; CEO sits in the compensation committee; CEO duality; | Accruals; timely recognition of losses; restatements, lower financing costs. | Klein (2000); Peasnell, Pope and Young (2000, 2005); Xie et al. (2003); Anderson, Mansi and Reeb (2004); Vafeas (2005); Wright, Shaw and Guan (2006); Abdul Rahman and Ali (2006); Niu (2006); Ebrahim (2007); Johnstone, Li and Rupley (2011); Masulis, Wang and Xie (2012). |
| Effective audit committees: independence; size; expertise; meetings. | Accruals; timely recognition of losses; restatements, lower financing costs. | Menon and Williams (1994); Peasnell, Pope and Young (2000) Klein (2000); Bedard et al. (2004); Anderson, Mansi and Reeb (2004) ; Vafeas (2005); Niu (2006) Abdul Rahman and Ali (2006); Ebrahim (2007); Dhaliwal, Naiker and Navissi (2010); Carcello, Neal, Palmrose and Scholz (2011); Johnstone, Li and Rupley (2011). |
| Audit quality: independence; expertise; high audit and non-audit fees; audit rotation | Accruals; restatements; qualified audit opinions; adequacy of insurance liabilities. | Becker et al. (1998); Chen et al. (2001); Gaver and Paterson (2001); Larcker and Richardson (2004); Wright, Shaw and Guan (2006); Ebrahim (2007); Chen, Lin and Lin (2008); Basioudis, Papakonstantinou and Geiger (2008); Chi, Huang, Liao and Xie (2009); Gul, Fung and Jaggi (2009); Gul, Fung and Jaggi (2009); Lim and Tan (2010); Chen, Chen, Lobo and Wang (2011); Boone, Khurana and Raman (2012); Francis, Michas and Seavey (2013); Francis, Michas and Yu (2013); |

| Disincentives for Earnings Management (independent variables) | Opportunities for Earnings Management (dependent variables) | Studies |
|---|---|---|
| Audit quality: independence; expertise; high audit and non-audit fees; audit rotation | Accruals; restatements; qualified audit opinions; adequacy of insurance liabilities. | Patterson and Valencia (2011); Markelevich and Rosner (2013). |
| Ownership concentration | Timing the sale of assets; accruals; cost efficiency ratio; earnings forecasts; timely loss recognition | Klassen (1997); Beatty and Petroni (1999); Yeo, Tan, Ho and Chen (2002); Berger and Bonacorsi Di Patti (2003); Niu (2006); Abdul Rahman and Ali (2006); Chin et al. (2006); Ali, Chen and Radhakrishnan (2007); Zhong et al. (2007); Ayers, Ramalingegowda and Yeung (2011); Chhaochharia, Kumar and Niessen-Ruenzi (2012); Ramalingegowda and Yu (2012). |
| Inside ownership | Accruals | Dempsey et al. (1993); Warfield et al. (1995); Weber (2006); Niu (2006); Yang, Lai and Tan (2008); Banderlippe II (2009); Alvez (2012); Lee and Hwang (2012); Fauzi and Locke (2012). |

The important contribution of this study is that it provides a bridge to the gap in the literature, since it examines both *incentives* and *disincentives* for earnings management. More specifically, it was hypothesized that bank managers have an incentive to manage earnings in order to: secure their cash bonus; increase the stock price where their compensation includes stock options; and increase the

bank's capital adequacy ratio. It was also hypothesized that earnings management will be constrained (i.e. disincentive) when: boards include a higher proportion of independent directors; the CEO is not the chairman of the board; the CEO does not sit in the nomination committee; the board meets frequently; and executive directors own bank shares.

Furthermore, most of the empirical studies for banks use loan loss provisions and securities gains and losses as a measure of earnings management. However, under the GAAP, there are a lot accounting numbers over which managers can exercise discretion. For this reason, this empirical study includes an additional variable as a measure of earnings management, the discretionary accruals. Accruals are defined as the difference between net profit and cash flows from operations. Therefore they include depreciation, amortization, gains and losses from sale of assets, impairments of assets etc. Thus, they capture earnings management in a comprehensive manner.

Chapter 3: The Banking Sector of Cyprus

3.1 Introduction

This chapter includes a brief description of the Cyprus banking sector. Even though the purpose of this study is to investigate earnings management practices only for the four banks that are listed in the Cyprus Stock Exchange, this short description will help the reader formulate a picture about the importance of Cyprus and the importance and structure of its banking system. The remainder of this chapter is organised as follows: Section 3.2 explains the importance of the banking system and why this is worth investigating; Section 3.3 provides an overview of the Cyprus banking sector; Section 3.4 describes the geopolitical importance of Cyprus; and Section 3.5 includes a brief history of the banks investigated in this thesis.

3.2 Importance of the Cyprus Banking Sector

An empirical investigation of the Cyprus banking system was of interest because of banks' systemic importance to the economy.

The first and most significant role that banks play in Cyprus is that of financial intermediation. Banks account for over 90% of the financial intermediation that takes place in the country, way above the Eurozone average of 50%³. This occurs because businesses find it difficult to raise capital through the local Stock Exchange, primarily due to investors' mistrust;

³ Independent Commission on the Future of the Cyprus Banking Sector: "Interim Report", June 2012.

thus, banks are the best source of flexible funding. Individuals and households also secure lending for personal and housing needs via banks.

Another characteristic of the Cyprus banking sector is that it relies mostly on deposits in order to raise funds and hence be able to lend to individuals and businesses. Due to competitive concerns, high interest rates are offered to depositors, and as a result the cost of lending is also high⁴.

In March of 2013, the Memorandum of Understanding was negotiated between the newly elected government and the European Union. A condition for securing financing was that one of the oldest and largest banks (Laiki) should be separated into two parts, the “bad” bank and the “good bank”. The “bad bank” closed down and Bank of Cyprus absorbed the “good bank” together with the large debt provided by the Emergency Liquidity Assistance as of 2009. In order to increase its capital base, Bank of Cyprus had to proceed with a “bail in” of 47,5% of uninsured deposits. In view of this situation, shareholders have lost their faith in financial institutions. In addition, individuals and businesses are no longer willing to deposit large amounts of money in banks. Consequently, the availability of credit is low because of low liquidity. As a result, banks cannot perform their significant financial intermediation role, which contributes to the worsening of the financial crisis. This situation confirms that, the Cyprus banking sector is of extreme importance due the high dependence on banks, particularly when there is no alternative to mediate capital between holders and users.

⁴ PIMCO: “Independent Due Diligence Report of the Banking System in Cyprus”, February 2013

3.3 Overview of the Cyprus Banking Sector

3.3.1 Central Bank of Cyprus

The banking sector of Cyprus is headed by the Central Bank, which was established in 1963. One of the major roles of the Bank is to safeguard the stability of the financial system. The Central Bank is also responsible for the oversight of the payment, clearing and settlement systems and, in exceptional circumstances, it acts as lender of last resort. In order to achieve its goals, the Central Bank cooperates with other competent authorities both domestically and internationally.

3.3.1.1 Domestic Cooperation

Cyprus has a National Financial Stability Committee that is chaired by the Central Bank. The Committee was set up in agreement between the Central Bank of Cyprus, the Authority for the Supervision and Development of Cooperative Societies, the Cyprus Securities and Exchange Commission, the Insurance Companies Control Service and the Ministry of Finance.

The members of this committee cooperate and exchange information in order to maintain the financial stability both in normal times and in times of crisis. This is achieved through the conduct of micro and macro prudential supervision of banks. Macro-prudential supervision focuses on the monitoring of the stability of the financial system as a whole as well as the implementation of macro-prudential policy tools with the objective to constrain systemic risk.

3.3.1.2 International Cooperation

Within the European Union, the Central Bank of Cyprus participates in the Advisory Technical Committee (ATC), which provides assistance on issues relevant to the work European Systemic Risk Board (ESRB). It contributes to the regular review of financial stability conditions in the European Union, the review and development of macro-prudential policy instruments available to competent authorities of the Member states as well as outside the European Union.

The Central Bank of Cyprus also participates in the Financial Stability Committee (FSC) of the European System of Central Banks (ESCB). The FSC provides assistance to the European Central Bank in the field of banks' prudential supervision and financial stability. It contributes to issues in the field of financial regulation, supervision and crisis management in the European Union and internationally.

Moreover, the Central Bank of Cyprus participates in the Financial Stability Table (FST) of the Economic and Financial Committee (EFC) of the European Union, which reviews financial stability issues semi-annually. The EFC-FST is responsible for preparing the ECOFIN Council's discussions on financial stability matters.

Finally, the Central Bank of Cyprus has signed the Memorandum of Understanding on Cooperation between the Financial Supervisory Authorities, Central Banks and Finance Ministries of the European Union on Cross-border Financial Stability. The objective of the Memorandum is to ensure cooperation in financial crises

between the aforementioned authorities in order to preserve the stability of the financial system of individual member states and of the European Union as a whole.

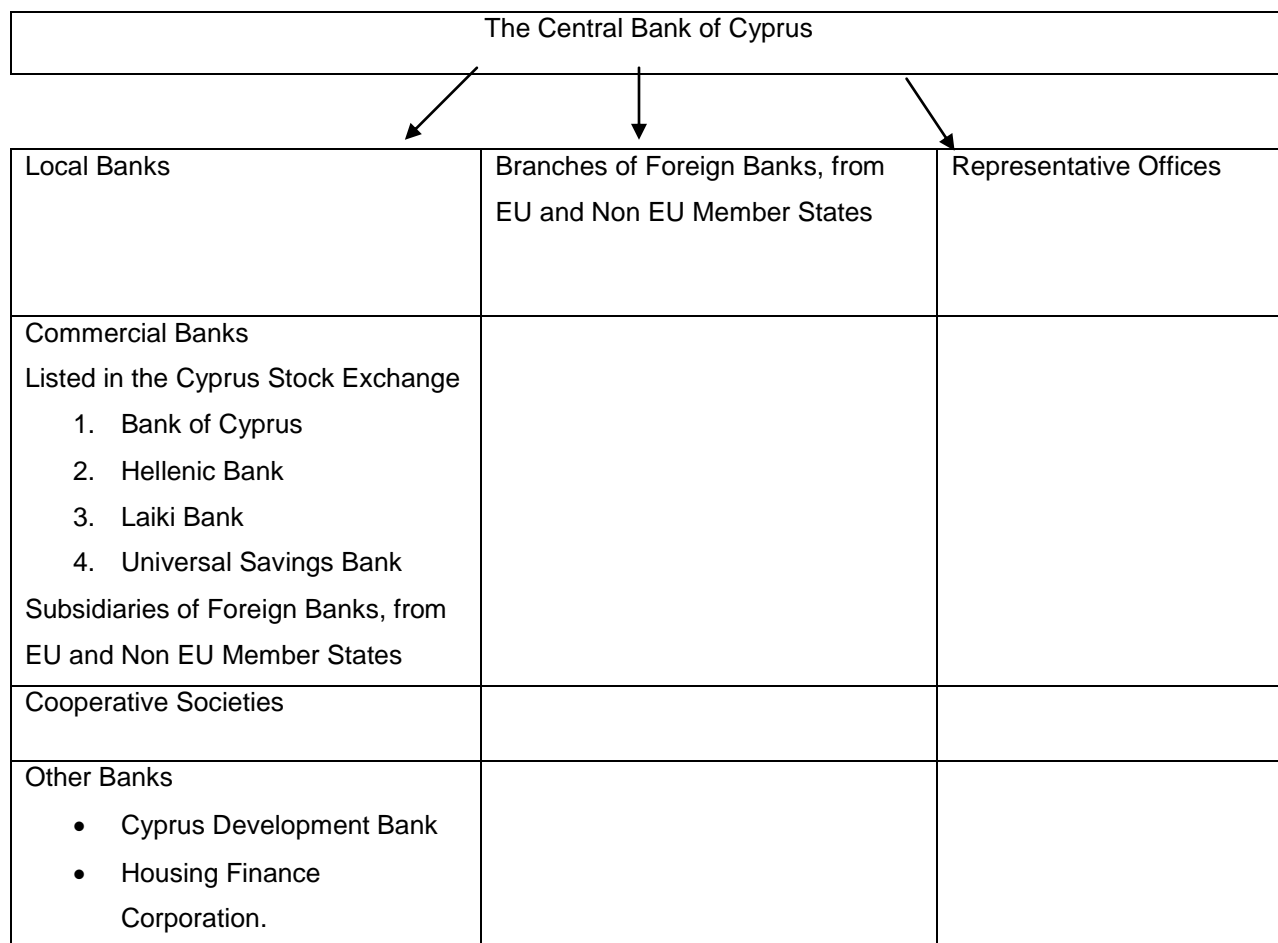
3.3.1.3 Regulations and Directives of the Central Bank of Cyprus

The regulations, directives and notices issued by the Central Bank are in line with the EU directives and the recommendations of the Basel Committee on Banking Supervision. The Banking Law of 1997, as amended, reflects the principles and rules of the EU directives on credit institutions.

3.3.2 Structure of the Cyprus Banking Sector

According to the Central Bank of Cyprus, the banks in the country are classified into three categories: local banks; branches of foreign banks (from EU and non- EU countries); and representative offices.

The local banks are further classified as: commercial banks listed in the Stock Exchange; commercial banks that are foreign subsidiaries (from EU and non- EU countries); cooperative societies; and other banks (see the diagram on the next page).



3.3.2.1 Local Banks

The category “local banks’ includes the commercial banks incorporated in Cyprus, the cooperative societies and other banks.

3.3.2.1.1 Commercial Banks

The commercial banks in Cyprus include banks that are listed in the stock exchange and subsidiaries of foreign banks (from EU and non EU countries). One of the most important consideration that attracted foreign banks in Cyprus is the low corporate

tax rate. Up to the period of the crisis the company tax rate was 10%, and it now has been raised to 12%.

The banks that are listed in the stock exchange are the four banks for which this empirical study is conducted i.e. Bank of Cyprus, Laiki Bank, Universal Savings Bank and Hellenic Bank. As per Central Bank, the foreign subsidiaries include five banks from EU countries and three subsidiaries from third countries.

The commercial banks offer conventional banking services as well as other services such as insurance, investment, factoring and consultancy. Up to the period of the crisis, the commercial banking business was heavily concentrated with Bank of Cyprus, Laiki Bank and Hellenic Bank.

The commercial banks have been licenced by the Central Bank of Cyprus, and operate under its regulation and supervision. All commercial banks are required to submit to the Central Bank audited financial statements, four months form the end of the financial year. In addition, every bank must submit within fifteen days from the end of each month, a certified statement of its assets and liabilities. The Central Bank may also require any other information as it may feel proper, such as records or accounts and other documents on granting of loans and information on the financial position of debtors (Banking Law, 1997).

For the supervision of EU foreign subsidiaries, the Central Bank collaborates closely with the competent supervisory authorities and provides them with information to help them discharge their consolidated supervision effectively. If the EU supervisory authority wishes to verify information, it may ask the Central Bank for its assistance, or appoint an approved auditor to do it (Banking Law, 1997). Finally, for foreign subsidiaries from third countries, the Central Bank must verify whether the bank is subject to consolidated supervision by the supervisory authority of the third country. For this purpose the Central Bank takes the guidance of the European Banking Committee as to whether the consolidated supervision arrangements of competent authorities in third countries are likely to achieve the objectives of consolidated supervision (Banking Law, 1997).

3.3.2.1.2 Cooperative Societies

The Cooperative Societies were established in 1938, with the purpose to primarily accommodate the needs of the agricultural sector. Over the years, the number of the Cooperative Societies has increased steadily and, up to the period of the crisis, virtually every village in Cyprus had its own Cooperative Society. The Cooperative Movement has also expanded into towns and has attracted more prosperous classes of the population, and today, it provides a full range of services normally offered by commercial banks. And, under the amendments of the Banking Law, a Cooperative Credit Institution may grant loans to non-members assuming they have the consent of the Registrar of the Cooperative Societies.

The supervision of the Cooperative Societies is carried out by the Cooperative Societies Supervision and Development Agency. This Agency must submit, from time to time, to the Central Bank all the necessary data and information for the purposes of monetary and credit policy, monitoring the balance of payments and provision of information to the European Central Bank or international organizations in which the Republic participates. The Central Bank may carry out, jointly with the Agency, on site verification of such information. The Banking Law does not apply to the Cooperative Societies.

3.3.2.1.3 Other Banks

The category “Other Banks” includes the Cyprus Development Bank and the Housing Finance Corporation.

The Cyprus Development Bank was established by the government in 1963, and it is supervised by the Central Bank of Cyprus. The Bank’s main goal is to provide medium and long term finance to the manufacturing and development sectors. As of 2001, the bank obtained a banking license to carry out the full range of banking operations, but it deals only with corporate customers. The bank is also active in other areas such as: the provision of specialized IT services; education; consultancy and environmental impact studies; proposals on a national health scheme; the strengthening of Cyprus as a regional telecommunications centre; and the implementation of the planning, construction and commencement of the Larnaca and Paphos airports operations. As of 2008, the bank’s government shareholding has passed to private

hands. Under the new ownership, the bank plans to expand operations in Russia and widen its banking activities in neighbouring countries with business potential.

The Housing Finance Corporation was established by the government in 1980. It is managed by a board of seven directors, which is appointed by the Council of Ministers. The Corporation is supervised by the Central Bank, and the provisions of the Banking Law apply to it to the extent that these are not in conflict with the provisions of the Housing Finance Corporation Law.

The basic goal of the Housing Finance Corporation is to provide long-term loans for housing purposes. The Corporation accepts deposits from the public, for a minimum period of six years, and it then grants loans that can be up to a maximum of four times the deposits. In order to attract deposits, 40% of the interest earned by depositors is tax deductible. The corporation also accepts deposits from the government, to which it grants loans in order to help groups of the population with special needs such as families residing in remote areas or families with more than three children.

3.3.2.2 Branches of Foreign Banks

According to the Banking Law (1997) branches of foreign banks are involved in banking business only. Banking business includes the acceptance of funds from the public, in the form of deposits, securities or other evidence; and these funds are then used for lending. As per Central Bank, at present, there are twenty seven branches of

foreign banks in Cyprus. Eleven are branches of banks from EU member states whereas the remaining are branches from third countries.

For statistical purposes, branches of foreign banks in Cyprus may be required to report periodically to the Central Bank about the activities carried on in the republic.

The supervision of EU branches is the responsibility of the competent supervisory authority of the home member state. The supervision may be carried out by the supervisory authority itself or through a person it may appoint. However, the Central Bank has the right, as the competent authority of the host member state, to carry out on the spot supervision of branches of banks authorized in another member state (Banking Law, 1997). The supervision of branches of banks from third countries is the responsibility of the competent authority of the country concerned. The supervisory authority may carry out inspections of the branch, provided the Central Bank has been informed and has given its consent (Banking Law, 1997).

3.3.2.3 Representative Offices

According to the Banking Law, a representative office is an office from where the interests of an entity to which it belongs are promoted or assisted, but at which no banking business is carried on. There is only one representative office in Cyprus, which is used exclusively to facilitate liaison activities between the head office or other branches abroad and non-resident customers.

The representative office may have the word “bank” or any grammatical variation of it as part of its name, provided that this is the name of the bank to which it belongs, and this name must be accompanied by the description “Cyprus Representative Office” (Banking Law, 1997). The representative office must also provide information regarding the activities of the office at any time that the Central Bank requests.

3.3.3 Size of the Banking Sector

Before the crisis, the Cyprus banking sector was extremely large. The total bank assets were equivalent to as much as nine times the country’s GDP compared to a European average of 3.5 times (Central Bank of Cyprus). Countries can have large banking sectors for two reasons: a high level of international activity and the lack of no other alternative for financial intermediation. Cyprus fell into both categories.

Prior to the accession in the European Union, Cyprus had a sound banking system that operated in a closely regulated environment , with controls on capital flows and interest rate ceilings, and it was primarily deposit based. In 2004, after the accession of the country in the European Union, the market conditions for banks changed. The controls on capital flows were raised and, as a result, Cyprus attracted a lot of foreign corporate clients, mainly due to the favourable corporate tax rate which was set at 10%. These foreign companies, in their turn, required significant financial services that were provided by Cyprus banks. Transaction revenues related to international banking have been and are likely to remain critical components of non-interest income for the large

Cyprus banks⁵. Up to the crisis, banking accounted for over 8% of GDP and 4% of employment.

Bank of Cyprus, Laiki Bank, Hellenic Bank and the Cooperatives societies took advantage of the liquidity abundance to expand domestically. During 2005 - 2008, domestic credit advanced by these banks more than doubled⁶. Lending continued to grow up to 2012, when it would have been prudent to ease off considering that the crisis was already evident. A large part of this lending was provided to the real estate sector which was growing due to the strong demand from non-residents.

The rapid growth in international banking has also been accompanied by rapid growth in foreign deposits. Bank of Cyprus, Hellenic Bank and Laiki took advantage of the increased liquidity, and began to grow abroad. During the 2000's, Bank of Cyprus, Hellenic Bank and Laiki Bank moved into foreign markets primarily in Greece and to a lesser extent in the UK, Russia and other Eastern European countries. Hence, these banks' balance sheets expanded dramatically⁷.

When the global financial crisis erupted in 2007, demand for Cyprus real estate began to fall, driving down property prices, and therefore loan collateral. Bank of Cyprus, Hellenic Bank and Laiki started to suffer international losses, mainly from Greece due to the country's worsening problems. An inescapable blow came in 2011, when 80% of the banks' holdings in Greek

⁵ PIMCO: "Independent Due Diligence Report of the Banking System in Cyprus", February 2013

⁶ Independent Commission on the Future of the Cyprus Banking Sector: "Interim Report", June 2012.

⁷ Independent Commission on the Future of the Cyprus Banking Sector: "Interim Report", June 2012.

government bonds were written off. As Greece's crisis deepened, the Cypriot banks' Greek operations indicated a higher level of bad debts than the domestic business⁸.

In March of 2013, the Memorandum of Understanding was negotiated between the newly elected government and the European Union. A condition for securing financing was the "downsizing" of the banking sector. As previously mentioned, Laiki bank was separated into two parts, the "bad" bank and the "good bank". The "bad bank" closed down and Bank of Cyprus absorbed the "good" bank. Bank of Cyprus and Hellenic Bank had to sell foreign operations, close a large number of domestic branches and reduce personnel. The reduction in personnel was achieved by offering employees voluntary retirement schemes⁹. Cooperative societies were also consolidated down to a smaller number.

3.4 The Geopolitical Importance of Cyprus

Cyprus is located in the Eastern Mediterranean, at the crossroads of the Middle East, Asia and Africa. The country's strategic location has played a key role in shaping its history and in developing the island into a centre for trade and international business. Cyprus joined the European Union on May 1st 2004, and thus became the southern border of Europe with the Middle East.

In 1974, Turkey invaded Cyprus and captured the northern part of the island (approximately 39% of the area). A separate Turkish Cypriot state was established in

⁸ Independent Commission on the Future of the Cyprus Banking Sector: "Interim Report", June 2012.

⁹ Independent Commission on the Future of the Cyprus Banking Sector: "Interim Report", June 2012.

1983, which is recognized only by Turkey. This political situation is a matter of continuing dispute. Turkey still maintains troops on the island, thus making Turkey a major player in the geopolitical situation of Cyprus.

The republic of Cyprus has sovereignty over the government controlled area and its surrounding waters, except for the British Overseas territory, which is administered as a sovereign base area. The importance of the UK military bases is based on the strategic location of Cyprus at the eastern edge of the Mediterranean, close to Suez Canal and the Middle East and the ability to use the bases as a staging post for military aircrafts and training.

The eastern Mediterranean is a home to vast reserves of natural gas. Noble energy got promising results from a gas field off the coast of Israel and from south of Cyprus. Cyprus is trying to cooperate with Israel to construct a pipeline that will help transport gas to Europe. Surveys suggest more than 5 trillion of cubic feet of reserves lie between Israel and Cyprus. Oil reserves of between 1.2 and 1.4 billion barrels have also been found below the gas deposits. Cyprus' energy sector currently presents the best opportunities for foreign investors and economic growth.

Finally, due to its strategic location, Cyprus constitutes one of the largest shipping management centres in the world. Around fifty shipping companies are conducting operations in the country, and the majority of them have established fully fledged offices on the island. The geographical position of Cyprus, at the crossroads of

three continents and its proximity to Suez Canal, has made shipping an important sector of the economy¹⁰. Today, the shipping sector accounts for around 6% of the country's GDP.

3.5 A Brief History of the Banks Investigated in this Thesis

The banks investigated in this study include the four banks that are listed in the Cyprus Stock Exchange. These are: Bank of Cyprus, Laiki Bank, Universal Savings Bank and Hellenic Bank. These local banks were created in order to serve the interests of the community which were not accommodated by the foreign banks that had already established branches in Cyprus. A brief history is provided next.

In 1863, the Ottoman Bank, registered in Turkey, established its first branch in Nicosia. This institution was an Anglo – French creation and was managed by two committees in London and Paris (Phylaktis 1995, p.5). The Bank acted mainly as a banker to the government. The Bank was also involved in the financing of trade and for this reason it opened up branches in Larnaca and Limassol, the two main ports of the island. The local community and specifically farmers were not target customers of this institution (Phylaktis 1995, p.7). The Ottoman Bank operated until 1967 when it was taken over by Grindlays Bank, which in its turn was taken over by the Cyprus Popular Bank (known until March of 2013 as Laiki).

¹⁰ Limassol Based Shipping, CyprusShipping.com

In 1926, the Ionian Bank, a British institution, commenced operations by setting up a branch in Nicosia and agencies in other major cities (Phylaktis 1995, p.10). A year later, the Bank made an attempt to obtain the accounts of the government by offering more favourable terms but was unsuccessful (Phylaktis 1995, p.14). For this reason it concentrated on attracting large customers because of economies of scale in collecting information and the low risk attached to such lending. These customers were a few firms in the mining industry (Phylaktis 1995, p.13). The Ionian Bank continued to operate until 1958 when it was taken over by the Chartered Bank, which in its turn was taken over by the Bank of Cyprus.

Barclays Bank also established a branch in Cyprus in 1937 (Phylaktis, 1995, p.10). This Bank mainly supported the Central Cooperative Bank through the provision of an overdraft, using as security British government bonds and promissory notes of member societies (Phylaktis, 1995, p.14). Barclays Bank operated in Cyprus until 1996, when the Hellenic Bank absorbed its operations.

Due to the unwillingness of the three foreign banks to provide services to the local community, several local banking institutions began to be established. They were called savings banks, and were opened up in all the principal cities of the island. They had some balances with the Ottoman Bank, even though they kept a major part of their reserves in London (Phylaktis 1995, p.9). The local banks had an advantage over their foreign rivals because they had substantial knowledge of customer information that allowed them to follow flexible credit policies. They also offered

higher deposit rates. Their only disadvantage was that they did not have lender-of-last-resort facilities from affiliated banks (Phylaktis, 1995, p.13).

When a bank crisis occurred in 1939, the Ottoman and the Barclays Bank came to the rescue by lending funds to the local banks under government guarantee (Phylaktis, 1995, p.15). The colonial government took measures to ensure safe and sound banking practice. Local banks followed the instructions meticulously and soon gained their stability. The increased strength of the local banks enabled them to acquire further market share. By the end of 1946 the Nicosia Savings Bank had taken over all the Savings Banks that had opened up, except for the Yialousa Savings Bank and the Popular Savings Bank of Limassol (Phylaktis, 1995, p.16). The first two companies are still operating today under the names of Bank of Cyprus, and Universal Savings Bank respectively. The Popular Savings Bank of Limassol, known as Laiki operated until March of 2013 when it was closed down.

3.5.1 Bank of Cyprus

Bank of Cyprus was founded on January 1st 1899, under the name of Nicosia Savings Bank. The capital of the bank was raised through small weekly deposits in exchange for shares. Shareholders could borrow up to 75% of their capital invested using their shares as a guarantee. Even though shareholders were given priority in loans, non-depositors could also borrow from the bank with guarantee or mortgage but at higher interest rates. The bank had no legal restriction over the distribution of its funds, which it lent to small-size businesses, craftsmen and shopkeepers. As the

bank's lending to non-shareholders grew, the initial constitution with unlimited liability was no longer suitable. Following an application by the shareholders to the High Commissioner, it was recognized as a public company and was renamed Bank of Cyprus.

The bank continued to grow rapidly by absorbing the operations of other Savings Banks. It also took over the Chartered Bank, which had previously taken over the Ionian bank, one of the first foreign banking institutions that had established branches on the island.

Over the years, the bank has become one of the leading financial services organizations and it operates under the supervision and regulation of the Central Bank. It became listed in the Cyprus Stock Exchange in 1996. In addition to full retail and commercial banking services, the bank has expanded in other areas such as insurance, fund management and corporate finance services, provision of venture capital and advisory services for mergers, acquisitions and corporate restructuring projects and factoring. The bank has also grown rapidly abroad. It has operations in London, Greece, Channel Islands, Australia, Romania, Bucharest, Russia and Ukraine.

The bank has also proven its immense contribution to society. The employees of the group around the world share the vision of a more human society and have made a shared commitment to benefit every community where they operate. The bank has invested and continues to invest in its people, education, art, health, culture, sports,

environment, strongly believing that this is the best possible way to support a society with vision and future.

In 2011, the bank began to have liquidity problems and as a result was unable to make new loans, thereby creating a problem in the economy due to its systemic importance. In that year, a large portion of its investments in Greek government bonds was written off, which resulted in a large loss that significantly reduced the bank's capital base.

In March of 2013, Bank of Cyprus had to absorb the "good part" of Laiki Bank, together with the large debt provided to the latter by the Emergency Liquidity Assistance as of 2009. In order to increase its capital base, the bank had to proceed with a "bail in" of 47,5% of uninsured deposits. The Bank also sold foreign operations, closed down branches and reduced personnel by offering voluntary retirement schemes.

3.5.2 Laiki Bank

Laiki Bank was established in 1901, under the name of Popular Savings Bank of Limassol. Their aim was to encourage savings among the general public, in particular among the workforce. In the first years of its operation, the bank accepted deposits of one shilling or more and granted loans on current accounts and bonds.

In 1924, following a decision by the board of directors, the bank became an institution with limited liability, in accordance with the Company Law that had recently been enacted.

At the beginning of the 1970's, the Hong Kong Bank, one of the largest banking groups in the world, acquired 21.16% of the bank shares. This cooperation gave the institution the ability to become an autonomous and strong organization and to expand rapidly, both in Cyprus and abroad. At that time, it also changed its name to the Cyprus Popular Bank Ltd, reflecting a truly pancyprian character. In 1982 the bank took over the operations of Grindlays Bank, one of the oldest and largest foreign banks that existed on the island. In year 2000, the Cyprus Popular Bank launched a new corporate identity by changing its name to Laiki Group. A milestone in the history of the Group was the completion of the triple merger of Laiki, Marfin and Egnatia Banks in 2008.

Similar to the Bank of Cyprus, the bank grew in size through the establishment of branches in all major cities across the country. Laiki operated under the regulation and supervision of the Central Bank. It became listed in the Cyprus Stock Exchange in 1996. In addition to the full banking retail and commercial services, it expanded in other areas such as hire purchasing, insurance, investments, consultancy services, factoring services, treasury, shipping services, stock broking and capital management. Laiki also expanded abroad, in Greece, United Kingdom, Australia, Ukraine, Russia, Romania, Serbia, Estonia, Malta, Bulgaria, Gurnsey, South Africa, Canada, Yugoslavia and the US.

Corporate social responsibility was a major strategic pillar of Laiki. It included a framework of policies and practices ensuring active contribution to the sustainable development and welfare of the societies in which it operated. Humanitarian contribution and solidarity, the adoption of socially responsible practices in all sectors of the business activities, the support of environment protection and sustainable development of education, culture and sports were the main pillars of its corporate social strategy.

Similar to the Bank of Cyprus, the bank began to have liquidity problems in 2011 and as a result was unable to make new loans, thereby creating a problem in the economy due to its systemic importance. In that year, a large portion of the investments in Greek government bonds was written off, which resulted in a large loss that significantly reduced the bank's capital base.

In March of 2013, Laiki Bank was separated into two parts, the "bad" bank and the "good bank". The "bad bank" closed down and Bank of Cyprus absorbed the "good" part of Laiki. The banks' foreign subsidiaries were also sold.

3.5.3 Universal Savings Bank

Universal Savings Bank was established in 1925, under the name of Yialousa Savings Bank. The bank business was interrupted by the Turkish invasion in 1974, because the bank was located in the occupied areas. At that time, it had been granted a

license to carry out banking business. Operations commenced again in March of 1990 with financial assistance from the government.

In 1996, Universal Life Insurance Company, one of the largest insurance companies in Cyprus acquired 30% of the bank's share capital, which increased over the next ten years to 61.06%. Following the acquisition, the bank was renamed Universal Savings Bank Limited. From that time onwards a dynamic growth began, together with the expansion into the broader financial sector. The board of directors decided to perform an organizational restructuring to enable the organisation to become a fully-fledged commercial bank, to expand its activities to foreign exchange operations and commercial business as well. The customers of the bank began to have access to a full range of personal and business banking products and services both in Cyprus and abroad, either directly through the bank or through its network of foreign correspondents. Universal Savings Bank has been licensed by the Central Bank of Cyprus and is operating under its regulation and supervision. It became listed in the Cyprus Stock Exchange in 1996.

At the beginning of 2007, Universal Life Insurance transferred the 50.99% of its share capital to Schoeller Holdings Ltd and Path Holdings Ltd, in equal shares. In 2011, BLC Bank SAL acquired 94,14% of the bank's share capital. BLC bank operates in Lebanon with a network of thirty five branches and is a member of the FRANSABANK group. The satisfactory capital adequacy and strong liquidity, the increase in productivity and the expansion of bank operations to offer a broad

range of services to national and international clients represent priorities for the future development and profitability. As a member of the BLC group, the bank is expected to gain expertise and know-how from an international organisation as well as exploit opportunities arising from the international network of BLC customers.

The bank considers it a duty and responsibility to contribute to society and invest in fields that will have a positive impact on the quality of life of people. It contributes in the field of health, education, culture and environmental protection.

3.5.4 Hellenic Bank

Hellenic Bank entered the market in 1976, without losses from the Turkish invasion. In a relatively short period of time, it has succeeded in becoming one of the largest financial organizations in Cyprus. In March of 1996, it acquired the onshore operations of Barclays Bank in Cyprus; this acquisition helped to expand the branch network. Hellenic Bank has been licensed by the Central Bank of Cyprus and is operating under its regulation and supervision. It became listed in the Cyprus Stock Exchange in 1996.

Besides the traditional banking services, Hellenic Bank offers a variety of other products such as hire purchase and leasing, factoring, insurance, investment and consultancy services, private banking, asset management, debt collection and sales management services. The bank has also been successful in expanding operations abroad, such as Greece, South Africa, Russia and Ukraine.

The Bank is a modern organisation which has devoted itself to honouring its commitment to society. This is why the principles of corporate social responsibility form an integral part of its vision and policy. Its anthropocentric nature is focused on giving back to society. The group is active in the fields of education, research and health, culture, sports and environment.

3.6 Summary

The banking sector of Cyprus is headed by the Central Bank, which is responsible for the supervision and inspection of the banks it has licenced. The banks in Cyprus are classified into three categories: local banks; branches of foreign banks (from EU and non- EU countries); and representative offices.

The local banks are further classified as: commercial banks listed in the Stock Exchange; commercial banks that are foreign subsidiaries (from EU and non-EU countries); cooperative societies; and other banks. The category “other banks” includes the Cyprus Development Bank and the Housing Finance Corporation.

The commercial banks offer conventional banking services as well as other services such as insurance, investment, factoring and consultancy. Up to the period of the crisis, the commercial banking business was heavily concentrated with Bank of Cyprus, Laiki Bank and Hellenic Bank. The Cooperative Societies’ primary purpose is to accommodate the needs of the agricultural sector. The Cooperative movement has grown, and today it provides a full range of services similar to those of commercial

banks. And, it may also grant loans to non-members. The Cyprus Development Bank's goal is to finance the manufacturing and development sectors whereas the Housing Finance Corporation provides long term loans for housing purposes only.

Branches are places of business of a bank at which banking business is carried on, whereas a representative office is an office from where the interests of an entity to which it belongs are promoted or assisted, but at which no banking business or the business of accepting deposits is carried on.

Finally, an empirical investigation of the Cyprus banking sector is of interest because of the systemic importance of banks to the economy. Banks rely mostly on deposits in order to raise funds and perform their financial intermediation role. For business, individuals and households banks are the best source of flexible funding. The existence of no other alternative to transfer capital between savers and lenders proves how critical banks are for Cyprus.

Chapter 4: The Cyprus Regulatory Framework

4.1 Introduction

As discussed in Chapter 5: “Theory of Methodology” this empirical study is classified under the critical realism philosophy. In critical realism research, after the phenomenon of interest has been chosen, a researcher proceeds with a critical evaluation of the literature in order to develop a conceptual framework and set the research objectives (Zachariadis and Scott, 2010). Based on the conceptual framework developed from the evaluation of the earnings management literature, the research objectives were set as follows:

1. Why does earnings management take place i.e. the incentives
2. How does regulation provide opportunities for earnings management and
3. How corporate governance and regulation can help limit such practices.

Besides the conceptual framework developed from the literature review, critical realists argue that the assessment of government reports and other sources can also help build up an explanatory framework (Olsen, 2009) In critical realism research, it is assumed that an external reality exists, and this reality affects human activity and creates the phenomena observed (Wikgren, 2005). Consistent with these arguments, this chapter includes a critical evaluation of the legal framework that affects banks’ financial reporting and provides explanations for why earnings management takes place at banks in Cyprus (i.e. the incentives), and how does regulation provide opportunities and disincentives for earnings management. This chapter is organised as follows:

Section 4.2 explains how the regulatory framework can provide incentives for earnings management; Section 4.3 illustrates the opportunities for profit manipulation; and Section 4.4 describes how regulation can create disincentives for such practices.

4.2 Incentives for Earnings Management

The critical evaluation of the laws that affect banks' financial reporting in Cyprus has revealed that, the incentives for earnings management are: to increase profitability so as to increase the capital base for regulatory and internal capital adequacy purposes; attract and maintain shareholders and affect the stock price; compensation considerations of executive directors and key management personnel; and fear of dismissal. These motivations are explained next.

4.2.1 Capital Adequacy

The Central Bank of Cyprus is responsible for the supervision of banks and the orderly functioning of the banking system¹¹. The review and evaluation is conducted at least on an annual basis and it is risk based.

When a bank fails to comply with any of the provisions of the Banking Law or with other Regulations and Directives, the governor of the Central Bank has the power to impose an administrative fine and where this violation continues, there is a further administrative fine for each day that the contravention continues. In addition, any director, chief executive, manager, or other employee of the bank who authorises or

¹¹ The Banking Law (1997)

knowingly permits the violation of any provisions of the Banking Law or any Regulations or Directives, shall be guilty of an offence, which is punishable by either imprisonment not exceeding two years or by a fine, depending on the seriousness of the contravention. If the violation continues, there shall be a further administrative fine for each day that the contravention continues. The Central Bank can also take additional measures to rectify matters such as imposing conditions on a bank's licence or restrict the bank's business in a particular way.

Considering the restrictive measures or the penalties that can be imposed, it can be argued that banks have a strong motive to meet regulatory requirements. Therefore, since the Directives on Capital Adequacy Ratio and the Supervisory Review Process are connected to accounting reported profits, they provide an incentive for engaging in earnings management in order to meet the relevant provisions.

4.2.1.1 Capital Adequacy Ratio

The Central bank requires that banks maintain a minimum capital adequacy ratio; this ratio is the capital base divided by risk weighted assets and off balance sheet items. The rationale behind maintaining adequate funds is to cover the risks to which banks are exposed. If a bank experiences losses that are large enough to eliminate most of the capital base, the bank will fail unless more capital is raised. Therefore, small capital base puts banks at greater risk of failing.

The first directive for the “Computation of Banks’ Capital Adequacy Ratio” was issued in January’ 1999. At that time, the minimum capital adequacy ratio was set at 8%. In year 2002, the required ratio was raised to 10% until year 2007 when the minimum was set again at 8%. As of July of 2011, the minimum Capital Adequacy Ratio should be at 11.5%. This increase was considered necessary because, in 2011, a large portion of banks’ investments in the Greek government bonds were written off. The write-off resulted in large losses that significantly reduced the capital base of the banks exposed to Greece. In addition, the banks in Cyprus experienced multiple downgradings due to their large exposure in the Greek government bonds and due to the large size of the banking sector in Cyprus.

In its capital adequacy directive, the Central Bank prescribes the items that should be included in the numerator and the denominator of the capital adequacy ratio.

The numerator includes the capital base. The capital base comprises of Tier 1 core capital, Tier 2 supplementary capital and Tier 3 capital less deductions from capital. Tier 1 core capital includes ordinary share capital and perpetual non-cumulative preference shares, share premium, retained earnings, government subordinated loan, reserves (except revaluation reserves), minority interest less goodwill, other intangible assets and own shares held by the bank. Tier 2 supplementary capital comprises of revaluation reserves (including revaluation of premises), hybrid capital instruments, subordinated term debt, general provisions for loan loss reserves and minority interests

arising from participations in Tier 2 capital. Tier 3 capital must consist of subordinated loan capital with a maturity of no less than two years.

The denominator of the ratio comprises of risk weighted assets and off balance sheet items. Banks are given instructions regarding the classification of their assets into categories that carry risk weightings of 0%, 20%, 50% and 100%. Directions are also provided concerning the classification of off balance sheet items into groups of full, medium, medium to low and low risk.

The capital adequacy ratio can be managed if a bank changes the numerator, the denominator or both. For example, banks may pursue capital strengthening through the management of risk weighted assets or the increase in share capital. There are various elements included in the ratio, which provide banks with a lot of flexibility to manage its calculation. Where such management takes place, it would qualify as capital adequacy ratio management.

However, the purpose of this study is to investigate earnings management. The retained earnings are included in the capital base (numerator). Hence, one way for banks to increase both their capital adequacy ratio is with profitability. Another element of the capital base, which is also part of calculating accounting profits, is the loan loss provisions. If managers increase their loan loss provisions, the profits will go down by $1 - \text{tax rate}$, whereas the capital base will increase by the amount of the loan loss reserves, which are included in Tier 2 capital. The net effect on the capital base is

increasing and hence the capital adequacy ratio will go up. Therefore, the directive for capital adequacy provides an incentive for earnings management and for management of loan loss provisions, so long as the provisions do not exceed the 50% requirement of the total of risk weighted assets and off balance sheet items.

4.2.1.2 Supervisory Review Process

The directive for the “Calculation of the Capital Requirements and Large Exposures of Banks” was issued in December 2006’, in line with Basel II. Basel II comprises of three pillars. Pillar 1 includes the guidelines for calculating the minimum capital requirements in order to cover the credit, market and operational risks. Pillar 2, the supervisory review process, includes rules to ensure that additional capital is held to cover risks which are not sufficiently covered by minimum capital requirements, such as residual risk, credit concentration risk, business and strategy risk and any external factors affecting the bank. Pillar 3 deals with required disclosures to allow market participants to assess important information about the capital structure, risk exposures, risk assessment processes and the capital adequacy of banks.

Pillar 2, the supervisory review process includes two elements: the supervisory review evaluation process and the internal capital adequacy assessment process.

The supervisory review and evaluation process is conducted at least annually and it is risk based. Based on its review, the Central Bank may classify banks into four risk categories according to their systemic importance and riskiness: High; Medium +;

Medium -; and Low. The systemic importance and the riskiness of a bank are assessed at the domestic banking system and at the banking group level¹².

The evaluation of the systemic importance of a bank at the domestic banking system level considers both quantitative and qualitative criteria. The market share in deposits is the most important quantitative criterion. The qualitative criteria include whether the bank is an integral part of the payments and the clearing system and whether the credit institution provides liquidity to the banking system.

The evaluation of the systemic importance of a bank at the banking group level also includes both quantitative and qualitative criteria. The quantitative criteria include total income, profit or loss before tax, regulatory capital and total assets. The qualitative criteria include the strategic significance of the bank for the whole group and the level of autonomy that the credit institution maintains.

As part of the capital management strategy, banks must assess the level of capital held against risks through the Internal Capital Assessment Process (ICAAP). The process involves the review of risk management processes, stress testing capital levels through various scenarios of profitability, growth in risk weighted assets as well as the assessment of capital level against risks, in addition to those covered under Pillar 1. The Central Bank must also evaluate the ICAAP design methodology, the

¹² Framework for the Supervisory Review and Evaluation Process, March 2007.

assumptions made, the stress tests carried out and the adequacy of own funds held to cover risks.

Based on its supervisory review, the Central Bank draws conclusions about the adequacy of the capital held and the coverage of risks. If weaknesses are identified, measures may be imposed such as: obliging the bank to hold own funds in excess of the minimum capital requirements; requiring the reduction of risk inherent in the activities together with a reinforcement of internal control and risk management policies.

Considering that one of the measures that can be imposed is to increase own funds over the minimum regulatory requirement, an incentive for earnings management is created. As previously explained, accounting earnings are included in the capital base; when profits are increased, the capital base also increases and hence the risks are adequately covered.

4.2.2 Company Law

According to the Company Law, like any other organization, a bank's principal goal is to maximize shareholders' wealth, which is measured by the market value of the stock. The market value in its turn depends on the amount of dividends paid. Since dividends are paid out of profits, any information concerning profitability may cause investors to change expectations and decide whether to buy, hold or sell their shares. For example, information that loan loss provisions have decreased because of a strong economy, increases expectations for current and future earnings. Shareholders may

also assess how much wealth has been generated and can potentially be distributed to them, by using accounting ratios such as earnings per share, basic and diluted.

Maximization of shareholders' wealth also helps to attract prospective investors. An increase in share capital provides banks with another advantage; it increases the capital base and thus the capital adequacy ratio rises.

Therefore, maximizing shareholders wealth, maintaining the ability to pay dividends and attracting new investors are motivations for earnings management.

4.2.3 Director's Remuneration

The remuneration of executive and non-executive board members and of key management personnel is handled by the remuneration committee. This committee should be composed wholly or by a majority of non-executive and independent directors, in order to provide assurance to shareholders and other stakeholders¹³. The committee's suggestions take into consideration the relevant responsibilities, workload, qualifications, academic background, experience, individual performance and remuneration of comparable positions in the market. The committee's aim is to attract and retain good quality officers at executive and general management levels, in order to better serve the interests of the bank, its shareholders and other stakeholders.

¹³ Company Law; Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006

The level of remuneration of non-executive directors is based on the time spent to attend meetings and the responsibilities of each member. Non-executive remuneration is not correlated to the profitability of the bank. Non-executives receive only fees and do not participate in any insurance or pension plan. Therefore the compensation of non-executive directors provides no incentives for earnings management.

The remuneration package of executive directors and key management personnel includes both variable and non-variable components¹⁴. The non-variable component includes an annual salary payable monthly. The variable elements consist of performance related payments such as bonuses and stock options and non-performance related compensation such as pensions, hospitality expenses, insurance cover and the use of a company car. The term 'performance' encompasses the evaluation of the individual performance as well as the performance of the bank in relation to the achievement of its targets and profitability.

The connection of executives' and key managers' remuneration to profitability clearly creates an incentive for earnings management. Where a bonus scheme exists, it provides an incentive to manage earnings upwards in order to earn the bonus. Equity based compensation can also motivate income increasing earnings management. For example, a manager that wishes to sell shares acquired under a stock option plan will

¹⁴ Company Law; Corporate Governance Code.

be inclined to make income increasing choices in order to increase the current stock price.

4.2.4 Job Security Concerns

Bank boards and managers are concerned about profitability not only because of profit sharing plans, but because profitability informs shareholders about the quality of their decisions. Profitability increases the shareholders' wealth. Entrusted by the owners to achieve this, bank managers have to ensure that their decisions are in accordance with the target fixed by the owners. The CEO and other senior managers can be removed from office if they have caused damages from breach of any contract between them and the bank¹⁵. Shareholders can also remove executive board members at the annual general meeting. The Central Bank also has the right to fire board members or the CEO if it considers that the bank is not properly run. The regular monitoring of net income enables corrective measures to be taken before the situation deteriorates. Therefore, job security concerns play a role in managing accounting profits.

4.3 Opportunities for Earnings Management

The consolidated financial statements of a bank and its subsidiaries include the balance sheet, the income statement, the statement of comprehensive income, the statement of changes in equity, the statement of cash flows and a summary of significant accounting policies and other explanatory information.

¹⁵ Company Law

The financial statements are prepared in accordance with International Financial Reporting Standards, the requirements of the Company Law and the Cyprus Stock Exchange Laws and Regulations.

The layout of banks' financial statements must be in accordance with the format prescribed in the directive on the "Layout and Contents of Banks' Annual Accounts" (Central Bank of Cyprus, 1999), whereas the cash flow statement is prepared in accordance with the International Accounting Standards. The Central Bank does not allow banks to change the layout and the format of the profit and loss from one financial year to the next. The items must be presented in the order specified. New items may be added only if their contents are not covered by any of the items prescribed by the directive. Furthermore, any set-off between income and expenditure items in the profit and loss account is prohibited. Income statement items can be combined only if the amounts are immaterial for the purposes of presenting the true and fair view. However, the combined items must be disclosed separately in the notes to the accounts. Therefore, if banks are required to follow the prescribed format so strictly, the opportunity for classificatory earnings management is eliminated.

The preparation of financial statements, including the income statement requires management to make use of judgements, estimates and assumptions that affect the reported amounts of assets, liabilities, income and expenses. The estimates and underlying assumptions are based on historical experience and various other factors that are believed to be reasonable in the circumstances. These assumptions form the

basis of making judgments about the carrying amounts of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. The income statement items over which discretion can be exercised, and therefore can be used to manage earnings are explained next.

4.3.1 Loans and Advances to Customers

With respect to loans and advances to customers, banks can exercise discretion over the following: loan loss provisions, loan impairments, classification of loans as non performing and loan restructuring¹⁶

One of the most discretionary expenses that appear on banks' income statements is loan loss provision. Banks evaluate individually significant loans separately, but most of the loans in the portfolio are evaluated collectively. This evaluation is subject to estimation uncertainty, partly because it is not practicable to identify losses on an individual loan basis and because of the large number of loans in each portfolio. Loss rates are based on historical experience. In normal circumstances, historical experience provides the most objective and relevant information from which to assess the loss within each portfolio. However, historical loss experience provides less relevant information about the incurred loss in a given portfolio if economic, regulatory or behavioural conditions have changed. In these circumstances, such factors are taken into account when calculating the appropriate levels of loan loss provisions. It is possible that the actual results in the next financial year are different from the

¹⁶ IAS 39 Financial instruments: recognition and measurement

assumptions made, resulting in a material adjustment to the carrying amount of loans and advances. Different factors are also applied in each country to reflect the local economic conditions, laws and regulations. Therefore, the total amount of the bank's loan loss provisions is uncertain because it is highly sensitive to changes in economic and credit conditions across a number of geographical areas. Thus, if the level of the loan loss provision is discretionary, the charge on the income statement can be managed.

At each balance sheet date, banks assess whether there is objective evidence that loans and advances to customers have been impaired. An impairment test is first made for loans and advances that are individually significant. The evaluation is based on the customer's overall financial condition, payment record, the prospect of support from creditworthy guarantors and the net realisable value of any collateral. Furthermore, a collective impairment assessment is made for loans and advances that are not individually significant. For the purpose of collective impairment tests, loans are grouped based on similar credit risk characteristics taking into account the type of the loan, geographic location, past-due days and other relevant factors. Future cash flows for a group of loans and advances that are tested for impairment are estimated on the basis of historical loss experience. Historical loss experience is adjusted to reflect the impact of current conditions that did not exist in the period of the historical loss experience and to remove the impact of conditions in the historical period that do not currently exist. The impairment loss is measured as the difference between the carrying amount of the loan and the present value of the estimated future cash flows, including the cash flows which

may arise from guarantees and collateral. If, in a subsequent period, the estimated impairment loss decreases and the decrease is due to the improvement of the creditworthiness of the customer to such an extent that there is reasonable assurance that all or part of the principal and interest will be collected timely, the previously recognised impairment loss is reversed. Loan impairment is highly discretionary since it involves judgments and estimates and can therefore be used to manage earnings.

Interest income from non-performing loans may provide an opportunity to manage the income recognised on the income statement. Interest from non-performing loans should be credited in the loan loss reserves, which is shown as a deduction from the loans and receivables on the balance sheet. However, according to the Central Bank, credit facilities, which are fully secured by property, are not classified as non-performing, regardless of whether customers have exceeded their approved limits or have missed payments of instalments and interest for more than three months¹⁷. In addition, a credit facility which has been classified as non-performing ceases to be considered doubtful if the customer provides the bank with additional collateral so that there is no longer a security gap. Collaterals are valued by independent qualified individuals, but the appraisal is subject to discretion. Therefore, optimistic collateral values may allow banks to classify credit facilities as performing and thus, continue to report interest income on the income statement. In this way, the reported profits are increased.

¹⁷ Directive on the Definition of Non Performing Credit Facilities, 2006

Furthermore, credit facilities that could be classified as non-performing can be renegotiated. A renegotiation can be made either through the granting of new credit facilities or through a readjustment of the repayment schedule. Through loan restructurings, banks can avoid classifying credit facilities as non-performing and therefore continue to recognise interest income on the income statement. Higher interest income results in reporting higher profits.

4.3.2 Investments

With respect to investments, banks can exercise discretion over the following items: sale, revaluation, impairment and reclassification¹⁸.

As a general rule, investments are bought to produce income in the form of interest or dividends and capital gains. By buying bonds and shares, interest and dividend income are secured over an extended period of time. If managers expect interest rates or share prices to change, they can sell securities to report gains or diminish adverse effects on bank profits. Investment securities can be sold at management's discretion since no one can really challenge them as to whether they have made the right decision or not. Therefore, disposal of investments can be timed and thus be used as an opportunity to manage earnings.

Investments held for trading or designated at fair value through profit and loss are recognised at fair value on the balance sheet day and any unrealised gains or

¹⁸ IAS 39 Financial instruments: recognition and measurement; IFRS 7: Financial instruments: disclosure; IFRS 9 Financial instruments

losses are reported on the income statement. The best evidence of fair value is a quoted price (Level 1). Therefore, where investments are actively traded, the fair value and the unrealised gains or losses are not subject to manipulation. If the market for a financial instrument is not active, a valuation technique is used (Level 2). Level 2 techniques include comparisons with similar financial instruments for which market observable prices exist, discounted cash flow analysis and other valuation techniques commonly used by market participants. Level 2 valuation techniques are based on observable market data, and the fair value measurement is considered highly reliable. For investments that similar financial instruments do not exist, valuations rely on non-observable inputs (Level 3). Level 3 valuation techniques are therefore discretionary and thus unrealised gains and losses are likely to be used for earnings management.

Available-for-sale investments in equity securities are impaired when there has been a significant or prolonged decline in their fair value below cost. The determination of what is significant or prolonged requires managerial judgment. The factors which are considered in impairment tests include the expected volatility in share prices and any evidence that significant adverse changes have taken place in the economic or legal environment in which the investee operates.

Available-for-sale, held to maturity investments in debt securities and other loans and receivables are impaired when there is objective evidence of impairment as a result of events that have occurred after the initial recognition of the investment and these events are expected to impact the estimated future cash flows of the investment. Such

an impairment review takes into account a number of factors such as the financial condition of the issuer, any breach of contract, the probability that the issuer will enter bankruptcy or reorganisation. Hence, impairment reviews involve a high degree of judgment.

If, in a subsequent period, the fair value of an impaired debt security increases and the increase can be objectively related to an event occurring after the impairment loss, the impairment loss is reversed and taken to the income statement. Reversal of impairment losses for equity securities are shown in equity. Considering that impairment reviews involve managerial judgement and estimates, impairment losses and their reversal can be used to manage earnings.

According to IFRS 7 “Financial instruments: Disclosure” it is permissible to reclassify investments out of the “fair value through profit or loss” or “trading” categories and reclassify them into the “held to maturity” and “loans and receivables” categories. For assets to be reclassified there must be an intent and ability to hold the asset for the foreseeable future at the reclassification date. The change of intent to hold for the foreseeable future requires management judgment. Management judgment and assumptions are also required to determine whether an active market does not exist in order for an investment to meet the definition of loans and receivables. Management judgment and assumptions are also required to estimate the fair value of the assets identified at the date of reclassification, which becomes the amortised cost base under the loans and receivables classification.

A reclassification of investments to “loans and receivables” has an effect on the income statement. Unrealised gains and losses for assets previously held for “trading” or designated “at fair value through profit and loss” are no longer recorded. After the reclassification, interest income is recorded on the income statement using the effective interest rate method that is now based on the fair value, which as mentioned before, requires managerial judgment. The reclassified items are also tested for impairment at each balance sheet date, which again involves assumptions and estimates. Hence reclassifications can be used to manage earnings.

4.3.3 Insurance

With reference to insurance, discretion can be exercised over the adequacy of insurance liabilities¹⁹.

At each balance sheet date, the adequacy of insurance liabilities is tested. The principal risk faced under insurance contracts is that insurance events are random, and the actual amount of claims may exceed the insurance liabilities. Any increase in insurance liabilities is recognised on the income statement.

The liabilities for general insurance contracts are calculated based on estimates and facts known at the balance sheet date. The estimates are based on past experience and market trends, and take into consideration claims handling costs, inflation and number of accident claims each year. Other external factors that may affect

¹⁹ IFRS 4 Insurance contracts

the estimate of claims are recent court rulings and the introduction of new legislation. For life insurance plans, the estimates are based on past experience, mortality assumptions, epidemics, lifestyle changes, terminations, administration expenses and expected investment returns. The adequacy of insurance liabilities involves many assumptions that are difficult to quantify. Therefore, the adequacy of the insurance liability and the amount taken to the income statement can be managed.

4.3.4 Investment Properties

With reference to investment properties, discretion can be exercised over their fair value measurement and the timing of their sale²⁰.

Investment properties are held for rental income and capital appreciation. Therefore, banks may choose to time the sale of investment properties in order to report gains or diminish adverse effects on profits.

At each balance sheet date, investment properties are measured at fair value and any unrealised gain or loss is reported on the income statement. The best evidence of fair value is the current price in an active market for similar property, in the same location and condition. In the absence of a current price, a bank considers information from a variety of sources such as: recent prices of similar properties in less active markets with adjustments to reflect changes in the economic conditions since the day of the transactions; discounted projected cash flows, using discount rates that reflect

²⁰ IAS 40 Investment property

current market uncertainty and; current prices in an active market of different properties adjusted to reflect those differences. The accounting standard encourages but does not require banks to have the valuations carried out by independent qualified valuers. Hence, if a current price in an active market does not exist, revaluation gains and losses of investment properties can be used to manage profits.

4.3.5 Staff Costs

The staff costs that may be used to manage profitability include the retirement benefit plan costs and the cost of share-based payments²¹.

The banks included in the sample provide to their permanent employees defined benefit retirement plans. Under such plans, the cost recognised in the profit and loss is the net of the following amounts: current service cost; interest cost; expected return on plan assets; actuarial gains and losses; past service cost; and effects of settlements and curtailments. As explained below, all these elements require judgment and estimates.

Current service cost is the increase in the present value of the defined benefit obligation, which is an estimate itself. Banks estimate their defined benefit obligation by reference to the employees' salaries and length of service until retirement. Future salary estimates are based on inflation, seniority, promotion and supply and demand in the

²¹ IAS 19 Employee benefits; IFRS 2 Share based payment

employment market. The length of service takes into account mortality, disability, early retirement and employee turnover.

Interest cost equals the present value of the defined benefit obligation times the discount rate. Banks have a choice over the discount rate which they can use i.e. the discount rate of a high quality bond or where this is absent the rate of a government bond.

Expected return on plan assets is based on forward-looking assumptions, reflecting market conditions and future expectations at the balance sheet date. Adjustments are made annually based on revised expectations of future investment performance of plan assets or changes to local legislation that affect investment strategy.

Net actuarial gains and losses are recognized in the profit and loss if they exceed the greater of: 10% of the present value of the defined benefit obligation or 10% of the fair value of the plan assets. This item is amortized and taken to the income statement over the expected average remaining working lives of the employees participating in the plan.

Similar to actuarial gains and losses, any past service cost resulting from introduction or changes to the post employment benefit is amortised over the expected remaining average working lives of participating employees.

Curtailments and settlements are recognised when the events actually occur i.e. when the defined benefits are significantly reduced or settled.

Most of the elements included in the defined benefit cost are based on assumptions, and therefore this item is manageable. The defined benefit obligation is based on future salaries and expected length of service; future salary increases take into account promotions and inflation; there is a choice over the rate used to discount the defined benefit obligation; return on plan assets is based on forward looking assumptions and; finally the actuarial gains and losses and past service cost can be amortised over the expected working period of plan participants. Due to the long term nature of these plans all these estimates are uncertain and can be used to manage earnings.

The cost of share options is measured by reference to the fair value on the grant date²². The fair value is determined using option pricing models. The main variables taken into account are: the current share price, the exercise price, the expected dividend yield, the risk free rate of return, and the expected life period over which to allocate the cost of options and the expected share price volatility. There is a reasonable range within which these expectations may fall, and they should also be weighted by probability of occurrence. For example, the expected exercise life could be short if people are assumed to be risk averse and the options are non-transferable. People would then be expected to exercise and sell quickly to liquidate their position.

²² IFRS 2 Share based payment

Considering that the fair value and hence the cost of share based payments includes judgements and expectations, it may be assumed that this item can be used to manage earnings.

4.3.6 Property, Plant and Equipment

With reference to property, plant and equipment, discretion can be exercised over depreciation and impairment²³.

Upon entry of property, plant and equipment in the books, a depreciation schedule is established, which includes the depreciation method, the useful life of the asset and the residual value. Banks can choose from a variety of depreciation methods, such as straight line, diminishing balance and units of output. The choice of method should reflect the pattern in which the assets' future economic benefits are expected to be consumed. The residual value is the estimated amount expected to be received when the assets are removed from service. The useful life is the period over which assets are expected to produce economic benefits. Depreciation methods, useful lives and residual values are reassessed at each reporting date and may be revised. Therefore, depreciation involves choices and estimates which can be used to manage profitability.

At the balance sheet date, banks may value long lived assets at cost or fair value. Any surplus arising on revaluation is taken to a property revaluation reserve in

²³ IAS 16 Property, plant and equipment; IAS 36 Impairment of assets

equity. Depreciation however is calculated on the re-valued amount. A revaluation will increase the depreciable base and hence depreciation. Since it is possible to reassess depreciation schedules at each balance sheet date, the estimated life of revalued asset can be reassessed on the grounds that the revaluation is an indication of an extension of the assets' useful life. In this way, the depreciation recognized can be decreased.

At the balance sheet date, property, plant and equipment are also tested for impairment when evidence indicates that the carrying value may not be recovered. Impairment loss is the difference between the carrying amount and the recoverable amount. The recoverable amount is the higher of the fair value less costs to sell or the value in use. Fair value less costs to sell is the expected selling price of the asset less expected selling expenses. The value in use is the present value of cash flows expected to be generated from the asset, including proceeds from its disposal. If in a future year, there is evidence that the recoverable amount is higher than the carrying amount of the asset, it may be reversed. The determination of whether there is evidence that an asset's carrying amount is lower than the recoverable amount requires managerial judgment. The level of the recoverable amount requires managerial estimates. Therefore, impairment loss and its subsequent reversal are manageable. Where banks have chosen to carry certain groups of assets at fair value, the impairment loss does not impact profitability because it is deducted from the revaluation reserve. Impairment can also indicate that the useful life or the residual value needs to be revised. Thus, it gives an opportunity to managers to change estimates and manage the depreciation recorded on the income statement.

4.3.7 Intangible Assets

With reference to intangible assets, discretion can be exercised over their amortization and impairment²⁴.

When intangible assets are acquired, an amortization schedule must be established, which includes the amortization method, the useful life and the residual value. Banks can choose from a variety of amortization methods, such as straight line, diminishing balance and units of output. The choice of method should reflect the pattern in which the assets' future economic benefits are expected to be consumed. The residual value is usually zero, unless there is a commitment by another company to buy the asset at the end of its useful life. The useful life reflects the period over which intangibles are expected to contribute to cash flows. If there are no factors that limit the useful life of intangible assets (i.e. contractual or legal), the life is indefinite and there is no amortization. Amortization methods, useful lives and residual values are reassessed at each reporting date and may be revised. Therefore, amortization involves choices and estimates, which can be used to manage profitability.

At the balance sheet date, intangible assets are tested for impairment when evidence indicates that the carrying value may not be recovered. The impairment rules that apply to property, plant and equipment also apply to limited life intangibles. Therefore, impairment loss for intangibles can also be used to manage earnings.

²⁴ IAS 38 Intangible assets; IAS 36 Impairment of assets

Goodwill is considered to have an indefinite life and it is not amortized, but it is reviewed for impairment annually. However, because goodwill generates cash flows in combination with other assets, impairment is conducted for the cash generating units to which goodwill is assigned. The cash flow forecasts of the acquired entities reflect management's view of future business prospects. The cost of capital assigned to each acquired entity and used to discount its future cash flows, can have a significant effect on the calculation of the value in use. The cost of capital is generally derived from a capital asset pricing model, which incorporates inputs reflecting a number of financial and economic variables, including the risk-free interest rate in the country concerned, a premium to reflect the inherent risk of the business being evaluated and foreign exchange rates. These variables are established on the basis of significant management judgment and are subject to uncertainty. The impairment of goodwill is taken to the income statement and can therefore be used for earnings management.

4.3.8 Associate Companies

With reference to investments in associate companies, discretion can be exercised over their impairment²⁵.

At each balance sheet date, investments in associate companies must be tested for impairment as a single asset. In determining the value in use, a bank can either estimate its share of the present value of the cash flows expected to be generated by the associate, including cash flows from its disposal or; the present value of expected

²⁵ IAS 28 Investments in associates; IAS 36 Impairment of assets

cash flows to be received from dividends and the disposal of the investment. The cash flow forecasts are based on management's view of future business prospects. The cost of capital used to discount the cash flows incorporates inputs reflecting a number of financial and economic variables. The impairment of associates is taken to the income statement and since it involves estimates it can be used for earnings management.

4.3.9 Derivatives

With reference to derivatives, banks can exercise their discretion over the timing of their use or revaluation²⁶.

The accounting treatment of derivatives depends on the reason for their purchase i.e. whether they have been bought for speculation or hedging. If derivatives have been bought for speculative purposes, then managers are expected to use derivatives to report gains or diminish adverse effects on bank profits. Therefore, usage of derivatives can be timed and thus can be used as an instrument to manage earnings.

On the balance sheet date, derivatives are shown at fair value. The unrealised gains and losses from derivatives bought for speculation and derivatives designated as fair value hedges are recognised on the income statement. The best evidence of fair value is a quoted price (Level 1). Therefore, where derivatives are actively traded, the fair value and the unrealised gains or losses are not subject to manipulation. If the market for a derivative is not active, a valuation technique is used (Level 2). Level 2

²⁶ IAS 39 Financial instruments: recognition and measurement; IFRS 7 Financial instruments: disclosures

techniques include recent arm's length transactions between knowledgeable and willing parties, reference to the current fair value of an instrument which is substantially the same and discounted cash flows. There is very little reliance on estimates and therefore the fair value measurement is highly reliable. For derivatives that similar financial instruments do not exist, valuations rely on non-observable inputs (Level 3). Level 3 valuation techniques are discretionary and thus unrealised gains and losses are likely to be used for earnings management.

Derivatives designated as cash flow hedges are recognised at fair value, and the effective portion is included in other comprehensive income. Any ineffective portion is taken to the income statement. Hedges are considered to be highly effective if the ratio of gains to losses on the hedging transaction is in the range of 80% to 125%. Where the fair value of hedges and the fair values of financial assets hedged can be measured reliably (Level 1 and Level 2), the effective and ineffective portions of the hedging relationship can be measured reliably. Thus, opportunity to manage earnings by keeping ineffective gains or losses in other comprehensive income is minimized. Where Level 3 inputs are used, they may be used to manage the effectiveness of the cash flow hedging relationship, and thus keep unrealised gains or losses off the income statement.

4.3.10 Taxation

Banks account for revenues and expenses according to International Accounting Standards. The difference between revenues and expenses equals the pre-tax profit,

which is a financial reporting item. The tax expense that is recognised on the income statement is the pre-tax accounting profit multiplied by the corporate tax rate; the corporate tax rate used for banks and their subsidiaries that are residents in Cyprus is 10%, whereas for foreign operations the tax rate used is the corporate tax rate of the country where business is carried out. The tax expense is therefore a financial reporting item.

The taxable profit is determined by the tax authorities. This equals the taxable revenues less the taxable expenses. The tax payable is calculated by reference to the taxable profit times the corporate tax rate. The tax payable is not equal to the tax expense due to temporary differences. Temporary differences arise from differences in property revaluation, depreciation and amortization, estimates of loan loss provisions , investment revaluation, unutilized tax credits, finance leases and other temporary differences.

Where the tax payable is lower than the tax expense, a deferred tax liability is recognised; similarly, when the tax payable is higher than the tax expense, a deferred tax asset is recorded. In subsequent years, when the temporary differences reverse, the previously created assets and liabilities are decreased. Therefore, the tax expense recognised on the income statement is not affected.

Besides company tax, banks are also obliged to pay other taxes such as the special contribution for the defence, which is based on deemed dividend distributed to

shareholders (70% of the profits after tax), special levy tax, which is based on qualifying deposits, and capital gains tax from the sale of immovable property. All these taxes are determined by tax authorities and cannot be managed.

What does have an impact on the tax expense is permission to carry-forward tax loss over a period of five years. For a carry-forward an accounting entry is required, which increases the deferred tax asset and decreases the tax expense²⁷. Hence, profitability is increased.

At each balance sheet date, the carrying amount of deferred tax asset must be reviewed²⁸. If based on available evidence, it is probable that some portion of the deferred tax asset will not be realised, then it must be reduced. The determination of whether the deferred tax asset is impaired is based on expectations such as: whether the bank has sufficient taxable temporary differences which will result in higher taxable profits in the future or whether tax planning opportunities are available that will create future taxable profit. When the deferred tax asset is reduced, an accounting entry is required, which decreases the deferred tax asset and increases the tax expense. The subjective nature of determining the impairment for a deferred tax asset therefore provides an opportunity for earnings management.

In summary, the opportunities to manage bank profits include: loan loss provisions, loan restructuring and loan classification as non-performing; sale of assets; adequacy of

²⁷ IAS 12 Accounting for Income taxes

²⁸ IAS 12 Accounting for Income taxes

insurance liabilities; depreciation and amortization; revaluation of investment properties; defined benefit plan costs and stock based compensation; impairment of assets; unrealized gains losses of investments and derivatives (Level 3 inputs); and reduction of deferred tax asset.

4.4 Disincentives for Earnings Management

The critical evaluation of the laws that affect banks' financial reporting in Cyprus has revealed that, the disincentives for earnings management arise from: the penalties that can be imposed as per the Cyprus Stock Exchange and Company Laws; effective boards; effective audit committees; inside ownership; active engagement and dialogue by shareholders; the quality of the audit and the relationship of the auditors with the Central Bank and; supervision and inspection by the Central Bank. These disincentives are explained next.

4.4.1 Board of Directors

The ultimate responsibility for the preparation of financial statements rests with bank boards. Board members must make sure that the final accounts present a true and fair view in accordance with International Financial Reporting Standards, the requirements of the Cyprus Company Law and the Cyprus Stock Exchange Laws.

More specifically, bank boards are required to submit information that is not false, misleading or illusory²⁹. The directors are also responsible for reviewing, at least

²⁹ The Company Law; The Cyprus Stock Exchange Law

annually, the procedures used to confirm the accuracy, completeness and validity of the information provided to investors. The rationale behind placing issuers under strict scrutiny is to prevent them from engaging in dubious acts that may negatively impact the interests of the investors. In addition, by providing accurate information concerning its activities, a bank can ensure the equal treatment of investors and help them make knowledgeable assessments of the securities' value. In this manner the exploitation of inside information is prevented, thus preventing insiders from making abnormal profits at the expense of small investors. Where information published is misleading or false, it constitutes an offence that is punished with imprisonment up to two years or with a fine or with both sentences. In such cases the Cyprus Stock Exchange may require the bank to restate its financial statements. In addition, any director or other person who has participated in the preparation of the misleading financial statements shall be liable to pay compensation to all investors who have sustained a loss due to any untrue statements. These sanctions, and particularly imprisonment, should encourage increased board effectiveness. As explained next, board effectiveness can be achieved by independence, splitting of the role of the chairman and the CEO, board size, board meetings and fitness and probity.

4.4.1.1 Board Independence

The board of directors should have a balance of executive and non-executive directors. At least 50% of the members of the board of directors, excluding the chairman, must be independent, non-executive directors³⁰. If the 50% rule is not met,

³⁰ Corporate Governance Code

then at least one third of the directors must be independent and a relevant application must be submitted to the Cyprus Stock Exchange to be granted a reasonable period for compliance. Independent, non-executive directors should sign a 'Confirmation of Independence' in accordance with Corporate Governance Code and this has to be submitted to the Cyprus Stock Exchange together with the report on corporate governance.

One non-executive and independent director should be appointed to be the senior independent director. The senior independent director should be available to shareholders if they have concerns which, board members or senior executive management have not resolved. The non-executive and independent director must maintain independence and clearly express opposition when the board makes decisions about which he / she has serious reservations.

Furthermore, it is recommended that the non-executive and independent directors meet, at least annually, with the external auditor and the heads of the internal audit, compliance and legal functions. Such meetings can strengthen the ability of the board to monitor senior management because they enable non-executive directors to ensure that the bank's obligations towards its shareholders and other stakeholders are understood and are met. Therefore, the presence of non-executive and independent directors can be a disincentive for earnings management.

All non-executive directors should resign at regular intervals, at least every three years, and submit their names for re-election, accompanied by biographical details to help shareholders make an informed decision³¹. It can be argued that re-election of non-executive, independent directors can be a factor that limits managerial ability to act opportunistically. This is because independent directors who serve the board for a certain period of time have a better understanding of the firm and its people and hence can monitor managerial performance more effectively (Peasnell et al. 2000).

4.4.1.2 Splitting the Role of the Chairman and the CEO

The roles of chairman and CEO should not be exercised by the same individual³². If these positions are not separated, there should be an explanation in the corporate governance report. When the roles are not split, more power is concentrated in the CEO's position, potentially allowing for more management discretion. The dual office structure also permits the CEO to effectively control information available to other board members and thus impedes effective monitoring (Jensen, 1993). Therefore, the separation between the CEO and the chairman of the board position provides an essential check and balance over the management's performance.

4.4.1.3 Board Size

The board of directors should have an adequate number of members and appropriate composition so as to exercise judgement independently of senior executive

³¹ The Corporate Governance Code

³² The Corporate Governance Code; Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006; The Company Law.

management, political or other outside interests and from influences of dominant shareholders³³. There is an argument that smaller boards are more effective monitors because they are able to communicate effectively and make timely strategic decisions (Goodstein et al., 1994). On the other hand, larger boards can be more capable of monitoring the actions of top management because more members with varied expertise can increase the synergistic monitoring of the board and reduce the incidence of earnings management (Xie et al., 2003).

4.4.1.4 Board Meetings

The board of directors must call one annual general meeting and as many extraordinary general meetings as they see fit³⁴. Board members should dedicate the required time and attention in order to carry out their duties properly and for this reason they should limit the number of positions in board of directors of other companies. The board should meet regularly, at least six times a year³⁵.

In all instances, it must be ensured that all board members are informed in writing about forthcoming meetings and have all the necessary documents in time to review them before the meetings. The annual accounts together with the auditor's report shall be presented at the annual general meeting. Managers have an obligation to provide the board with timely, reliable and accurate information. The CFO must also submit to the board for review, information concerning the selection of accounting

³³ Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006

³⁴ The Company Law

³⁵ The Corporate Governance Code

policies and accounting estimates for the company's financial statements, pointing out all consequences of the final decision. Where boards detect problems, they should require timely correction. Consequently, active boards with sufficient supply of information will be in a better position to monitor management and hence control earnings management.

4.4.1.5 Fitness and Probity of Board Members

Bank boards should include individuals that are competent and suitable for the position.³⁶ Each board member should have adequate knowledge, skills, honesty, objective judgement, appropriate age and experience for at least the main activities of the bank; in this way, board members can properly discharge their supervisory responsibilities³⁷. New directors should be provided with a proper induction programme, and subsequent to appointment their development needs should be identified and met.

As per Central Bank, any person recommended by the nomination committee for appointment in a board position, must submit detailed information concerning academic and professional qualifications, experience, any court decisions against them, statement of assets and liabilities, any relation with bankruptcy proceedings and the employment history during the last ten years. The bank must also receive references from two persons, one of which must be the most recent employer of the proposed individual. The bank should also certify that the individuals proposed have been reliable, honest,

³⁶ The Corporate Governance Code

³⁷ Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006

integral and objective in their previous posts. Subsequent to the verification of this information, if the Central Bank is satisfied that the person is fit and proper for the proposed position, the Central Bank concurs and the bank may proceed with the appointment.

The examination of the fitness and probity should be examined after appointment as well. The chairman should see that the performance of board and committee members is evaluated at least once a year. The nomination committee examines the size, composition, output and effectiveness of the board and can propose changes. The Central Bank requires that banks have in place policies to identify individuals that violate the required procedures and to identify unethical or unlawful conducts. In such situations, banks should immediately inform the Central Bank, which may require that the said person ceases to act as director. Consequently, the requirement for the necessary knowledge and skills to run the bank properly, personal qualities such as sincerity, integrity, honesty, reliability, objectivity as well as job security concerns, should encourage increased monitoring on behalf of bank boards.

4.4.2 Audit Committee

The board of directors must establish an audit committee in order to ensure that the bank complies with the directives published by the Central Bank, in accordance with the Banking Law.

This committee is responsible for the appointment of external auditors. Pursuant to appointment, the committee must ensure the independence and effectiveness of the auditors, particularly when they offer a substantial volume of non-auditing services. Where necessary, it can propose the auditors substitution, rotation or at least the rotation of the lead audit partner as well as a change in their remuneration. It also evaluates the comments of the auditors regarding the preparation and presentation of the financial statements.

Another major duty is to examine the contents of the quarterly, semi-annual, nine-monthly, annual financial statements and other special periodic financial reports and be satisfied that they present a true and fair view. The processes applied by the CFO regarding the choice of accounting policies and accounting estimates must also be supervised.

The audit committee is also responsible for monitoring and assessing the adequacy and effectiveness of the internal audit unit. The internal audit unit has the main responsibility to carry out both routine and special audits of the accounting records and to evaluate whether the accounting systems produce reliable, complete and up-to-date financial information. More particularly, the internal audit unit is expected to evaluate the granting of credit procedures, the provisioning policy and the methodology applied for the computation of the impairment of the value of loans and other assets.

Considering the responsibilities of the audit committee with reference to the preparation and the auditing of financial statements, it can be assumed that an effective audit committee should act as a disincentive for earnings management. As explained next, effectiveness can be achieved by audit committee independence, expertise and number of meetings.

4.4.2.1 Audit Committee Independence

Banks should appoint at least three and maximum six non-executive directors as members of the committee. The majority of the members of the committee must be independent³⁸. The chairman of the board should not be a member of the audit committee. Audit committees function effectively if they are independent of management, so that internal and external auditors remain free from undue influences from executives. Where there is a majority of executive directors, they are more likely to side with management in any disputes with the auditor. Thus, the requirement for independent audit committee members is a key variable that can improve the quality of financial reporting.

4.4.2.2 Audit Committee Expertise

Since the primary function of the audit committee is to monitor the financial reporting process, there is a need to have competent and experienced directors, particularly in financial aspects. The requirement for banks is that the chairman must have knowledge and expertise for the supervision of auditing and accounting matters,

³⁸ The Corporate Governance Code

while the committee as a whole, should have appropriate knowledge and expertise, including knowledge of the bank's broader business environment as well as expertise on information systems³⁹. Therefore, directors that have related expertise can be more effective as monitors in reducing earnings management.

4.4.2.3 Audit Committee Meetings

The audit committee should meet at least on a quarterly basis, before the announcement of the quarterly results in order to review the financial accounts and particularly the sufficiency of loan loss provisions and the adequacy of the internal control system⁴⁰. The committee can also meet on its own to review matters within its responsibility. Any officer of the bank, whose opinion may be considered necessary for the best conduct of the committee's duties should also be invited. Additionally, audit committee members can participate in meetings with executive management and the internal audit to review issues that arise from the final accounts or from special reports or investigations. Finally, the committee must meet with the external auditors at least once a year to discuss matters arising from the audit. The number of audit committee meetings can be considered as an indication of whether the committee performs its monitoring function properly.

³⁹ Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006

⁴⁰ Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006

4.4.3 Inside Ownership

As previously mentioned, the remuneration package of executive directors may include share options. The use of share options plans can be viewed as a way to align executive and shareholder interests, by giving the executives an ownership stake in the firm (Jensen and Meckling 1976). Stock ownership by executive board members gives them an incentive to monitor managers carefully (Weber, 2006; Niu, 2006). Hence inside ownership may be a disincentive for opportunistic earnings management.

4.4.4 Relations with Shareholders

Since it is difficult for shareholders to effectively monitor bank boards or senior management, transparency is essential. This may be achieved with adequate supply of timely and accurate information.

The board of directors must use the announcements of the quarterly or interim results, as well as the annual general meeting to make analytical presentations of the financial statements to shareholders. The annual accounts, together with the auditor's report, must be sent to shareholders at least twenty one days before the date of the annual general meeting⁴¹. Together with the consolidated financial statements, the board must prepare and send a report on the developments and the performance of the business and the position of the bank group, including all material changes concerning the targets and activities of the bank, major shareholders and voting rights, material

⁴¹ The Company Law

foreseeable risks, unusual transactions such as mergers or sale of a significant part of the bank's assets.

Banks must also disclose on their websites and annual reports, timely and accurate information in the following areas: board of directors and senior executive management structure; major share ownership of the board members and senior executives; remuneration policies; the code of business ethics as well as any applicable governance structures and policies, nature and extent of transactions with affiliates and related parties, including any bank matters for which members of the board have material interests, either directly or indirectly or on behalf of third parties.

During the general meetings substantial dialogue must be encouraged in the decision making procedure⁴². All shareholders should be treated equally, and those with a sufficient number of shares (5%) are allowed to place items on the agenda of the general meetings. The chairmen of the audit, remuneration and nomination committees should be available to answer to questions. Proposals submitted at extraordinary general meetings, should be explained to shareholders, who should be given sufficient time before the date of the meeting in order to evaluate them. The shareholders also have the opportunity to contact the investor relations officer regarding matters that concern them.

⁴² Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006

Therefore, active engagement and dialogue as well as adequate supply of information can help to reduce information asymmetry and strengthen the monitoring role of shareholders. Hence earnings management can be controlled.

4.4.5 Auditing

4.4.5.1 Quality of Audit and Independence

Auditors have the right to access all books and accounts and require from officers additional information and explanations. Auditors must also evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates made⁴³.

The auditors' report should state whether they have obtained all the necessary information and explanations needed for their audit. The report should also include the opinion as to whether proper books have been kept and whether the financial statements are in accordance with such books. The auditors' responsibility is then to express their opinion as to whether the financial statements give a true and fair view of the financial position, the financial performance and the cash flows in accordance with International Financial Reporting Standards and the requirements of the Cyprus Company Law. The auditors should comply with ethical requirements when they plan and perform their audit. The procedures selected depend on the auditor's judgment.

⁴³ The Company Law

Banks should not entrust a substantial volume of non-audit services to auditors unless the latter are in a position to confirm in writing that such assignments will not affect their objectivity and independence⁴⁴. If auditors offer other services apart from auditing, their objectivity and independence must be ensured by having the non-auditing services provided by different companies or different departments of the auditing firm in accordance with the professional code of certified accountants / auditors. The total remuneration for the auditors must be shown in the notes to the accounts as follows: audit of annual accounts, assurance services, tax advisory services and other non-audit services.

Finally, every three years, banks are required to have their internal procedures audited by auditors, other than those responsible for the auditing of the final accounts on a yearly basis.

Therefore, assuming ethical behaviour on behalf of auditors and independence, the quality of the audit is enhanced and may help to control earnings management.

4.4.5.2 Relationship of Auditors with the Central Bank

The Central Bank requires that there should be a relationship between itself and the external auditors of banks⁴⁵. At least once a year, a meeting should be arranged between the Central Bank, the external auditors and the bank concerned. The agenda includes items mainly determined by the Central Bank, but the other parties can request

⁴⁴ Corporate Governance Code

⁴⁵ Notice to Banks Concerning the Relationship Between the Central Bank and the External Auditors of Banks, November 1997

inclusion of additional issues. During this meeting, a discussion is made of the bank's final accounts, the report of the external auditor as well as of matters arising from the audit work i.e. whether the bank does not maintain, or will not be able to maintain in the future the required capital adequacy ratio, or has not made adequate loan loss provisions.

The auditors can also ask for discussion of issues about which the bank concerned may not agree. This is because, auditors are expected to fully understand that the Central Bank has a major responsibility to protect the interests of depositors, and therefore should be provided with all necessary information that will assist it in carrying out its supervisory role. A bilateral meeting can also be arranged if the auditors have reasonable suspicions that the bank that they audit is violating the provisions of the Banking Law.

Consequently, it can be assumed that this regulation can act as a mechanism for controlling earnings management, since bank managers are aware of the fact that, in the annual tripartite meetings, they should be prepared to justify their choices and decisions, particularly in areas where they have the flexibility to exercise judgment. In addition, bank managers may find it more difficult to manage accounting reported numbers if they know that auditors can bring to the discussion issues for which they do not agree. Furthermore, there is always a possibility that the auditor may communicate to the Central Bank any suspected violations of the Banking Law, any inadequacies in the application of International Accounting Standards and any suspicions concerning

unethical behaviour. Assuming auditor independence and integrity, managerial flexibility to manage profits with the purpose to mislead is restricted.

4.4.6 Supervision and Inspection

The Central Bank of Cyprus is responsible for the supervision of banks and the orderly functioning of the banking system⁴⁶. The review and evaluation is conducted at least on an annual basis and it is risk based. Every bank must make available for examination its liquid and other assets, books or records, accounts and other documents, including the granting of loans and other facilities, as well as reports obtained by the bank regarding the business and financial position of debtors. The Central Bank shall also review the processes and mechanisms implemented by banks in order to comply with the provisions of the Banking Law and evaluate the risks to which banks are exposed to. The frequency and the intensity of the review and evaluation is determined considering the size, systemic importance, nature, scale and complexity of the activities of the bank concerned⁴⁷.

When a bank fails to comply with any of the provisions of the Banking Law or with other Regulations and Directives, the Central Bank has the power to impose an administrative fine and where this violation continues, there is a further administrative fine for each day that the contravention continues. In addition, any director, chief executive, manager, or other employee of the bank who authorises or knowingly permits the violation of any provisions of the Banking Law or any Regulations or Directives, shall

⁴⁶ The Banking Law (1997)

⁴⁷ Framework for the Supervisory Review and Evaluation Process, March 2007.

be guilty of an offence, which is punishable by either imprisonment not exceeding two years or by a fine, depending on the seriousness of the contravention. If the violation continues, there shall be a further administrative fine for each day that the contravention continues.

The Central Bank can also take additional measures to rectify matters such as imposing conditions on a bank's licence; restrict the scope of a bank's business in a particular way i.e. prohibit the bank from entering into certain transactions such as limitations on accepting deposits, granting credit facilities, making investments or require the bank to hold additional own funds; it may assume control of the bank for so long as the Central Bank may consider necessary and finally it can close the bank.

Therefore, the restrictive measures or the penalties that can be imposed and the frequency and intensity of the review and evaluation can act as disincentives for earnings management.

4.5 Summary

The following table is a synopsis of the findings derived from the critical evaluation of the regulatory framework

Table 17: Summary of incentives, opportunities and disincentives derived from the critical evaluation of the regulatory framework

| |
|--|
| <p>Incentives for earnings management</p> <ul style="list-style-type: none">• Increase profitability so as to increase the capital base for regulatory and internal capital adequacy purposes.• Attract and maintain shareholders and the stock price effect• Compensation considerations of executive directors and key management personnel• Job security concerns |
| <p>Opportunities for earnings management</p> <ul style="list-style-type: none">• Loans and advances to customers: provision for loan losses; impairment of loans and advances to customers; classification of non-performing loans and advances to customers; renegotiation of loans and advances to customers• Investments: sale; unrealised gains and losses from the revaluation of investments (Level 3 inputs); impairment loss and reversal of impairment loss of investment in debt and equity securities available for sale, securities held to maturity and other loans and receivables; reclassification of investment securities• Insurance: increase in the adequacy of insurance liabilities• Investment properties: sale; revaluation• Staff costs: defined benefit plans; cost of share based payments• Property, plant and equipment: depreciation; impairment• Intangible assets: amortization; impairment• Associate Companies: impairment |

Opportunities for earnings management

- Derivatives: timing of their use; revaluation (Level 3)
- Taxation: reduction of deferred tax asset

Disincentives for earnings management

- Penalties that can be imposed as per the Cyprus Stock Exchange and Company Law
- Corporate governance: effective boards, effective audit committees; inside ownership; active engagement and dialogue by shareholders and; the quality of audit
- The relationship between auditors and the Central Bank.
- Supervision and inspection by the Central Bank

Chapter 5: Theory of Methodology

5.1 Introduction

The purpose of this chapter is to explain and justify the nature of this research study, the research paradigms and the research methodology

5.2 Nature of the Research

Any research study can be classified into four types depending on its purpose, data type, logic and outcome. Research according to its purpose can be further classified as exploratory, descriptive, explanatory and predictive (Hussey and Hussey (1997, p. 9).

According to its purpose, this research study can be classified as explanatory. Explanatory research provides answers to the “why” and the “how” questions; it is the study of a situation in order to explain why events have taken place (Punch 2005, p.15). When conducting such a research, relationships between variables are investigated in order to explain the phenomena. The findings are then compared to other research outcomes and the results can be generalised (Saunders 2003, p.28). This research study can be classified as explanatory because the purpose was to explain why earnings management takes place at banks in Cyprus (i.e. the incentives), how does regulation provide opportunities for earnings management and how such practices can be limited by corporate governance and other bank regulation (i.e. the disincentives). The relationship between the most important incentives, opportunities and disincentives

for earnings management was tested with regressions and the results were then compared to the findings of other research studies on earnings management.

Depending on the data type, research can be classified into quantitative and qualitative (Hussey and Hussey 1997, p.12). The choice between quantitative and qualitative data depends on the nature of the research project. In order to meet the research objectives, this research study includes both types. The quantitative part includes numerical data taken from the annual reports, the corporate governance reports and the Cyprus Stock Exchange. The qualitative part includes the results from which were interviews conducted with CEOs and CFOs of banks and one bank auditor.

Based on its logic, research can be classified as deductive or inductive. When a conceptual framework is already in place and the objective of the research is to verify theory through empirical observations, the research is deductive (Hussey and Hussey 1997, p.13). In contrast, inductive research is a study where generalisations are made from particular instances (Hussey and Hussey 1997, p.13). The logic of this study is a deductive one. A conceptual framework on earnings management was already in place, and the objective was to test this theory through an empirical investigation of the four listed commercial banks in Cyprus. The research findings were then set within the existing conceptual framework.

Based on its outcome, research can be classified as applied or basic (Hussey and Hussey 1997, p.13). Basic research is conducted in order to make a contribution to

the knowledge without necessarily applying the findings, whereas research that is conducted in order to provide a solution to a specific problem is called applied. Clearly, this research study is basic research because its outcome is simply knowledge creation.

5.3 Research Paradigms

The term paradigm refers to the guidelines that one should follow when conducting research and to the methods and techniques that ideally should be used when carrying out research (Punch 2005, p.26). There are three research paradigms that dominate the literature: positivism, phenomenological and critical realism (Saunders 2003, p.83).

5.3.1 Positivistic Paradigm

Traditionally, the positivistic paradigm has been associated with theory verification (Punch 2005, p.157). Under the positivistic paradigm, the researcher makes a critical evaluation of the literature, establishes a conceptual framework and formulates hypotheses deductively (Hussey and Hussey 1997, p.116). The hypotheses are then tested to identify any associations using statistics. For this reason, this paradigm is usually associated with quantifiable observations and places an emphasis on a highly structured methodology to facilitate replication (Gill and Johnson, 1997, cited in Saunders 2003, p. 83). Highly structured methodology implies that the research questions are tightly developed and pre-specified ahead of the empirical work (Punch 2005, p.22, p.141). The outcome of such research can be law-like generalisations (Remenyi et al., 1998:32, cited in Saunders 2003, p.83). Such law-like generalizations

can then help to predict phenomena and therefore allow them to be controlled. Finally, the samples used are large in order to allow generalization (Hussey and Hussey 1997, p.50).

5.3.2 Phenomenological Paradigm

The phenomenological paradigm is associated with theory generation (Hussey and Hussey 1997, p.123), and the samples used are small (Hussey and Hussey 1997, p.50). In a phenomenological study, the researcher begins with general questions that become more refined and set within a theoretical framework as the study unfolds (Punch 2005, p.22). The data are also likely to be unstructured at the point of collection. Data categories emerge from the analysis (Punch 2005, p.24). The aim is to generate theory systematically from the data collected (Wolcott 1992, cited in Punch 2005, p.5). The phenomena investigated are not necessarily measurable. Phenomenologists are concerned with human behaviour because the world can only be understood if the perceptions of the human actors are understood (Hussey and Hussey 1997, p.53).

5.3.3 Critical Realism

The philosophical position of critical realism is that an external reality exists, independent of human thoughts and beliefs (Saunders 2003, p.84). The reality of critical realism has two dimensions. The first includes the events that we observe and the second includes the unobserved, real mechanisms behind them (Sobh and Perry, 2006). Critical realists recognise causality (Easton, 2010). This means that the unobserved social mechanisms and structures have a generative capacity, which

determines human activity and creates the phenomena that we experience and describe (Wikgren, 2005). The goal of critical realism is to identify and describe these hidden structures that have causal powers to produce effects (Easton, 2010).

In order to provide explanations of how a common reality of an economic system causes people to operate, critical realists do retrodution. Retrodution refers to asking “why” things are being observed as they seem to be and “how” are the phenomena of interest explained (Olsen, 2009). Realism research should be consistently asking “why” a result has been found, because the observed findings are a result of a deeper, unobservable reality (Sobh and Perry, 2006).

5.3.4 Choice of Paradigm

All research questions are driven by paradigm considerations (Punch 2005, p.3). The choice of paradigm is largely determined by the nature of the research problem and the questions that need to be answered (Hussey and Hussey 1997, p.50).

Considering the research philosophies described above, this research study can be classified under the critical realism paradigm. In critical realism research, one needs to be consistently asking “why” and “how” questions. In line with this philosophy, the purpose of this study was to understand managerial behaviour, that is, “why” bank managers make accounting choices in order to manage accounting reported profits and “how” can regulation provide opportunities and disincentives for earnings management.

The reality of critical realism has two dimensions, the events that we observe and the unobserved, real mechanisms behind them. Critical realists argue that the unobserved social mechanisms and structures affect human activity and create the phenomena we can experience (Wikgren, 2005). The goal of critical realism is to identify and describe these hidden structures that have causal powers to produce effects (Easton, 2010). Consistent with these arguments, this study has taken into consideration the unobserved social reality, which includes the laws that affect the decisions of all bank managers. After the critical evaluation of the literature review, the next step was to critically evaluate the legal framework that affects banks' financial reporting and explain why earnings management takes place at banks in Cyprus (i.e. the incentives), how does regulation provide opportunities for earnings management and how such practices can be limited by corporate governance and other bank regulation (i.e. the disincentives). In other words, the purpose was to describe and understand how this regulation can create the phenomenon that we experience i.e. whether earnings management takes place or not.

5.4 Research Methodology

There are different types of research methodologies. Some of them are considered to be appropriate for use under one paradigm than another (Hussey and Hussey, p.59). The choice of the methodology is largely determined by the choice of paradigm (Hussey and Hussey 1997, p.51). Given that this study is classified under the critical realism paradigm, the methodologies used are the ones that are considered appropriate under this philosophy.

Critical realism advocates methodological pluralism (Wikgren, 2005).

Methodological pluralism or mixed methods is a synonym for methodological triangulation (Sobh and Perry, 2006). Methodological pluralism allows the use of a combination of qualitative and quantitative methods, which are chosen according to the type of the study and its objectives (Zachariadis and Scott, 2010). Easton (2010) argues that a mixed methodology design can be sequential. In this case, the methods are employed sequentially, one after the other, in distinct phases.

In critical realism, the research may include data collection through interviews, which can produce results that confirm or disconfirm the conceptual frameworks developed from the literature review and other documentary sources (Zachariadis and Scott, 2010; Olsen, 2009). However, in realism research, only the perceptions that are relevant to the external reality are worth investigating (Yin 2003, p.8). The empirical results from interviews can help to reduce data from the conceptual framework, show demi-regularities and contribute to the formulation of hypotheses. Critical realists argue that where such demi-regularities can be quantified, then regressions may be used, where structural variables can be treated as either independent or dependent variables (Olsen, 2009). The use of regressions is not about measuring laws, but about testing the hypotheses (Zachariadis and Scott, 2010).

It is recommended that, the design of critical realism research includes the following stages (Zachariadis and Scott, 2010): choice of the phenomenon to be examined and the unit of analysis; critical evaluation of the literature and formulation of the research objectives; assessment of social structures and mechanisms; qualitative

empirical analysis; and quantitative empirical analysis. Consistent with this recommendation, this research has been organised accordingly, and the stages of the study are explained next.

5.4.1 Stages of Critical Realism Research

Stage 1

The first step in critical realism research is to choose the phenomenon to be examined and the unit of analysis. In this empirical study, the phenomenon chosen was earnings management and the unit of analysis was the Cyprus banking sector.

The area of earnings management was chosen because of the interest the researcher has in the area of financial accounting and reporting.

The primary reason for which the banking sector was chosen is because of its systemic importance for the Cyprus economy. Since businesses find it difficult to raise capital through the local stock exchange, banks are the best source of flexible funding. Individuals and households also secure lending for personal and housing needs via banks. In their turn, banks rely mostly on deposits in order to raise funds and perform their financial intermediation role. The existence of no other alternative to transfer capital between savers and lenders proves how critical banks are for Cyprus.

Given that the sector to be studied was chosen, the next step was to decide which banks would be included in the investigation i.e. the sample. The need to sample arises because it is not possible to investigate the whole population due to its size or due to time or other constraints (Saunders 2003, p.103). In critical realism research, multiple cases may be included in the sample, and the criterion for the case selection is relevance rather than sampling logic and representativeness (Stake, 1994). In this research, only four banks could be included in the sample, due to data availability. Financial statements and reports on corporate governance were publicly available only for the banks listed in the Stock Exchange, and these include: Bank of Cyprus, Laiki Bank, Universal Savings Bank and Hellenic Bank.

The banking sector was also chosen due to other data availability concerns. Earnings management studies use data either from financial reports or interviews or both (Stolowy and Breton, 2010). This study includes both. The researcher was aware that access to the laws and the financial reports would pose no particular problems, but the interviews could be difficult to arrange if people felt that discussing reporting practises would be a sensitive matter. Therefore, the researcher decided that a way to overcome this difficulty would be to choose a sector where she has connections with people in high positions that could help with the interview arrangements.

Stage 2

In the second stage of the research, it is recommended that critical realists proceed with a well- developed conceptual framework about the phenomenon to be

examined, from a critical evaluation of the literature. Hence, the second stage in this empirical study was to conduct a critical review of the earnings management literature. The literature review has revealed that, there are two theories that dominate the earnings management literature: the theory on incentives and the theory on disincentives for earnings management. The incentives to manage accounting profits include: compensation, lending and implicit contracts; political costs; stock price effect; fear of dismissal; and taxation. The disincentives for earnings management include: the board of directors; audit committees; the quality of external audit; and corporate ownership. Finally, under the GAAP, accounting options are given for presenting financial performance, thus creating opportunities for earnings management. Based on the conceptual framework developed from the literature review, the research objectives were formulated as follows:

4. Why does earnings management take place i.e. the incentives
5. How does regulation provide opportunities for earnings management and
6. How corporate governance and regulation can help limit such practices.

Stage 3

In the third stage of the research, it is recommended that critical realists proceed with an assessment of government reports and other documentary sources in order to help in building up an explanatory conceptual framework (Olsen, 2009). In critical realism research, it is assumed that an external reality exists, and this reality affects human activity and creates the phenomena we observe (Wikgren, 2005). In view of this argument, the next step was to consider the regulatory framework that acts as a

common stimulus to all bank executives and managers and hence affects their decisions. The relevant legal framework in Cyprus includes: the Company Law, the Tax Law, the Stock Exchange Rules and its Corporate Governance Code, the Regulations of the Central Bank and the International Financial Reporting Standards.

The critical evaluation of the Cyprus regulatory framework produced a list of all the possible incentives, opportunities and disincentives for earnings management for the banks in Cyprus (see Table 17, page 240). This explanatory framework provided results that are consistent with empirical evidence found in the earnings management literature.

The use of the financial reports and the laws that affect banks' financial reporting practices had a lot of advantages (Saunders 2003, p. 200). The main advantage was that it has not been expensive and time consuming for the researcher to collect. The second and most important advantage was that this secondary data provided a permanent record that was read over and over again, whenever necessary.

Stage 4

The fourth stage of realism research may include data collection through interviews, which can produce results that confirm or disconfirm the conceptual framework developed in the previous stages (Sobh and Perry, 2006). However, in realism research, only those perceptions that are relevant to the external reality are worth investigating. In critical realism research, interviews should be conducted with

individuals that are actually involved in the events (Yin 2003, p.8). The empirical results from interviews can help to reduce data from the conceptual framework, show demi-regularities and contribute to the formulation of hypotheses.

In line with the above arguments, after the critical evaluation of the regulatory framework, it became necessary to determine which of the incentives, opportunities and disincentives for earnings management were considered to be the most important in Cyprus. This focus could be obtained with interviews. Since this study is about earnings management and financial reporting, the interviewees chosen were either a CEO or a CFO, one from each of the twelve commercial banks that operate in the country. This choice was made because, in any organisation, the people responsible for the true and fair view of financial reports are the CEO and the CFO. An auditor was also chosen because this individual works for an audit firm that is responsible for the auditing of five out of the twelve commercial banks in Cyprus. He is therefore experienced in banking matters. The practical aspects of the interviews as well as the results are presented in detail in Chapter 6: "Empirical Analysis, Part 1; Results from Interviews".

The main advantage of the interviews was that it helped to focus on those incentives, opportunities and disincentives for earnings management that were perceived by the interviewees to be the most important. Even though a disadvantage of collecting primary data with the semi-structured interviews is that it can be very time consuming (Hussey and Hussey 1997, p.157-158), it was not such a problem with this research. This is because the number of participants was not large and because the

researcher used connections in order to help set up the interview appointments. For this reason, the meetings were arranged soon after the participants were asked to provide their assistance. A disadvantage of the interviews was that, once they were over, there was no chance for a second meeting to clarify the issues further. Another disadvantage was whether participants were actually telling the truth. The researcher believes that the responses obtained were sound because the participants were knowledgeable, experienced and professional; and when they agreed to provide their assistance, they were ready to give truthful answers, to the best of their knowledge.

Stage 5

In the last stage of the research, realists argue that, if the demi-regularities observed from interview results can be quantified, regressions may be used, where structural variables can be treated as either independent or dependent variables (Olsen, 2009). The use of regressions is not about measuring laws, but about testing the hypotheses (Zachariadis and Scott, 2010).

In line with this argument, after considering the results from interviews, the research hypotheses were then formulated. More specifically, it was hypothesized the incentives to manage income upwards include: maximization of executive variable compensation (cash bonus and stock options) and increase of the capital adequacy ratio. It was also hypothesized that effective boards can be a disincentive for earnings management. Finally, it was hypothesized that the accounting instruments that can be used to manage earnings (i.e. the opportunities) include

realised securities gains and losses, loan loss provisions and total accruals. The regressions estimated to develop measures for earnings management, the regressions estimated to test for earnings management and the empirical results are presented in detail in Chapter 7: “Empirical analysis, Part 2; Testing for Earnings management.

5.5 Summary

The purpose of this empirical study was to explain why earnings management takes place at banks in Cyprus (i.e. the incentives), how does regulation provide opportunities for earnings management and how can corporate governance and other bank regulation can help constrain such practices. The banking sector was chosen because of its systemic importance to the Cyprus economy. In Cyprus, banks are the only alternative to transfer capital between savers and lenders, and this proves how critical banks are for the country. In this research, only four banks could be studied because financial statements and reports on corporate governance were available only for the banks listed in the Stock Exchange, which include: the Bank of Cyprus; Hellenic Bank; Laiki Bank and Universal Savings Bank.

This research study was classified under the critical realism paradigm. In critical realism, after the selection of the cases has been made, it is recommended that critical realists proceed with a well- developed conceptual framework from a critical evaluation of the literature. The literature review revealed that, the earnings management literature is dominated with evidence on the incentives or the disincentives for earnings management. And, under the Generally Accepted Accounting Principles (GAAP),

accounting options are given for presenting financial performance, thus creating opportunities for earnings management. Consistent with the empirical evidence, the research objectives were then formulated.

The next step was to consider the regulatory framework that acts as a common stimulus to all bank executives and managers and hence affects their decisions. The relevant legal framework in Cyprus includes: the Company Law, the Tax Law, the Stock Exchange Rules and its Corporate Governance Code, the Regulations of the Central Bank and the International Financial Reporting Standards. The critical evaluation of the laws in Cyprus produced a list of all possible incentives, opportunities and disincentives for earnings management.

In realism research, only those perceptions that are relevant to the external reality are worth investigating. For this reason, the next step was to conduct interviews with CEOs, CFOs and a bank auditor, in order to determine which of the incentives, opportunities and disincentives for earnings management were considered to be the most important and relevant for Cyprus.

After considering the results from interviews, the research hypotheses were formulated. Regressions were then estimated to develop measures for earnings management and to test for earnings management.

Chapter 6: Empirical Analysis, Part 1; Results from Interviews

6.1 Introduction

As discussed in Chapter 5: “The Theory of Methodology”, after the phenomenon of interest has been chosen, the next two stages of critical realism research include a comprehensive review of the literature and an assessment of social structures and mechanisms that cause the phenomena observed. The following stage may include data collected through interviews, which can produce results that confirm or disconfirm the conceptual framework developed in the previous stages. However, in critical realism research, only the perceptions of those involved in the actual events are worth investigating. Therefore, this chapter includes the results from interviews conducted with individuals involved in the financial reporting of banks, in order to determine which of the Incentives, Opportunities and Disincentives for Earnings Management were considered to be the most important in Cyprus. The remainder of this chapter is organized as follows: Section 6.2 includes the practical aspects of the interviews; Section 6.3 presents the interview results; and Section 6.4 identifies the most significant incentives, disincentives and opportunities for earnings management in Cyprus.

6.2 Practical Aspects of the Interviews

The practical aspects of the interviews included the selection of the respondents, conducting the interviews and the recording of responses (Saunders 2003, p.252).

6.2.1 Selection of the Respondents

In critical realism research, the sampling procedure is based on who are the people relevant to the research objectives (Bryman 2004, p.334). In other words, interviews are needed with individuals that are actually involved in the events (Yin 2003, p.8).

Since this study is about earnings management and hence the quality of financial reporting, the interviewees chosen were either chief executive officers (CEOs) or chief financial officers (CFOs). This choice was made because, in any organisation, the people responsible for the true and fair view of financial reports are the CEO and the CFO.

The individuals that were initially selected included either the CEO or the CFO from each bank included in the sample and one bank auditor. This selection was primarily made because of the personal acquaintance between the researcher and the interviewees, which ensured direct access. The second reason was that, there was a need to obtain the views of individuals from the banks that were examined in this thesis. The auditor was also chosen because he works for an audit firm that is responsible for the auditing of five out of the twelve commercial banks in Cyprus. He is therefore experienced in banking matters.

The next step was to contact the interviewees. A phone call was made to them and the prospective participants were asked if it was possible to meet with them. It was

explained very clearly that the study was about banks and that a regulatory review had already been carried out, which had produced a list of incentives, opportunities and disincentives for earnings management; it was added that their views and opinions were needed on those issues. They found it very interesting and they were more than willing to assist. Since these individuals were very busy and had limited time to devote to an interview, it was suggested, and they agreed, that a copy of “Chapter 4: The Cyprus Regulatory Framework” be sent to them, so that they could read it before the meeting. As soon as they read the material, they called the researcher in order to make an appointment.

By providing the participants with Chapter 4: “The Cyprus Regulatory Framework” before the interview may have introduced some bias. This is because the participants had time to process the information being requested, thus enabling them to think more carefully about what answers they would provide (Saunders 2003, p.255). In order to overcome this bias and enhance the reliability of the data, it was decided to include in the sample more individuals.

The next step was then to choose the remaining participants. In order to obtain results that could be comparable, the remaining respondents were selected from banks with similar operations (i.e. commercial banks) and with similar organisational positions (i.e. a CEO or a CFO). As explained in Chapter 3, there are twelve commercial banks that operate in the country. Four of them are listed in the Stock Exchange, for which the first four interviewees was already selected. Hence, the rest of the interviewees were

individuals that were chosen from the remaining eight banks, one person from each bank.

The next issue that had to be addressed was how to contact them and gain access. Since CEOs and CFOs are busy people that would probably be reluctant to talk about bank practices, the researcher had to use her contacts. These individuals made a first phone call to the prospective participants and explained that the researcher was conducting an academic study and asked if it was possible to arrange an interview. Once they agreed to participate, the researcher called their personal assistants in order to make an appointment.

All the meetings took place at a time and location convenient to the interviewees. Each meeting took place individually, face to face, on different days and it lasted for about two to two and a half hours.

In order to enhance the credibility of the answers, Table 18 on the next page shows the position of each interviewee, the educational background and the years of experience in the banking sector.

Table 18: Position, Qualifications and Experience of Interviewees

| Interviewee | Position | Educational Background | Years of Experience in the Banking Sector |
|-------------|----------|--------------------------------|---|
| A | CEO | MSc Accounting and Finance, UK | 27 |
| B | CEO | MSc Accounting and Finance, UK | 29 |
| C | CFO | Chartered Accountant | 20 |
| D | CFO | Chartered Accountant | 15 |
| E | Auditor | Chartered Accountant | 30 |
| F | CEO | PhD in Economics, USA | 26 |
| G | CEO | MSc Money and Banking, USA | 31 |
| H | CFO | Chartered Accountant | 20 |
| I | CFO | Chartered Accountant | 23 |
| J | CEO | MSc Economics, UK | 30 |
| K | CEO | MSc Accounting and Finance | 30 |
| L | CFO | Chartered Accountant | 28 |
| M | CFO | Chartered Accountant | 22 |

*To protect the anonymity of the above individuals, their name and year of birth, the organisation they work for and the university that awarded the degree are not disclosed.

6.2.2 Conducting the Interviews

At the beginning of each interview, it was mentioned that this was an academic study and it was stressed that the need was to identify the most significant incentives, opportunities and disincentives for earnings management.

It was also explained how the data would be analysed and reported i.e. that the most important variables identified would be used in regressions to test their significance. This was done in order to establish informed consent; if a participant

agrees to participate in the data collection, it does not necessarily mean that he/she consents about the way in which the data will subsequently be analysed and reported (Saunders 2003, p.133).

The respondents were given assurance about anonymity and confidentiality and of the fact that the findings of the research will make no reference to them and to the organisation they work for. Experience shows that when this is done people will express their opinions more freely and the quality of the data is improved (Punch 2005, p.100). Anonymity was also maintained when during the interviews the participants indirectly identified which person was responsible for making the issue being discussed (Easterby-Smith et al. 2002, cited in Saunders 2003, p.136). The researcher was sensitive to the fact that the research results may have an impact on those individuals who provided access and participation.

Given that the purpose was to understand managerial behaviour, the interview type was semi structured. Four general, open ended questions were prepared in advance. The questions were asked in an order which would seem logical to both the respondents and the interviewer (Saunders 2003, p.302). The interviewees were given time to talk freely in order to provide extensive and developmental answers. The problem with open ended questions was how to manage time, considering the limited time available for the interview (Saunders 2003, p.266). For this reason there was no interruption, except for a few cases where some directions were given on the issues

discussed. In this way, the same things were discussed in all meetings and hence the answers were comparable.

The validity and reliability of data collected can be improved if the questions asked are clearly stated and include words that are familiar to respondents, without leading or proposing (Saunders 2003, p.292). In this particular study, the interviewees were people with knowledge and experience about the subject matter so there was no difficulty in understanding the topics discussed.

Another issue with interview data is whether people actually do what they say (Fielding 1996b, cited in Punch 2005, p.176). The researcher believes that the responses obtained were sound because the interviewees are involved in the financial reporting process and thus they have knowledge and experience in the matters discussed. In addition, since participants agreed to participate in the study, it was expected that they were ready to give truthful answers, to the best of their knowledge.

When the interviews were over, participants were once again reassured about anonymity and confidentiality and of the fact that the findings of the research will make no reference to their position or the firm they work for. Finally, they were thanked for their assistance verbally.

6.2.3 Recording of Responses

During the interviews, the interviewer took notes. When the respondents were asked if it would be possible to use a tape recorder, they said they felt uncomfortable to talk about confidential or sensitive information and being recorded at the same time. Since they accepted to discuss such sensitive issues so willingly, it was not considered appropriate to put them in a difficult position.

After the end of each meeting, enough time was allocated to write a full set of notes so as not to lose the exact nature of explanations provided or mix up data from different interviews. When all the interviews and the notes were completed, they were compared in order to find similarities and differences between the answers. The questions asked and the answers given are presented in the next section.

6.3 Interview Results

This section includes the responses obtained from the interviewees. In all interviews the questions asked were exactly the same and in the same order.

Question 1

“It would be appreciated if you could have a look at the list of incentives for earnings management. Would you like to explain how much each item affects managerial decisions and which items do you think are the most important?”

The incentives for earnings management and a summary of the respondents' comments follow:

Incentive 1: Increase Profitability so as to Increase the Capital Base for Regulatory and Internal Capital Adequacy Purposes.

All the respondents agreed that the capital adequacy is of extreme importance to banks in order to avoid penalties from regulators. They said that the recent financial crisis confirms the importance of adequate capital base which can be increased with profitability. The arguments made were as follows:

“Banks wish to meet the regulatory minimum capital requirements primarily to satisfy regulators and profitability is a way to do it” (Interviewee A).

“There is a need for banks to have strong capital base and profits can help due to their direct and immediate effect on the capital base” (Interviewee B).

“A strong capital base is definitely important and it can be increased through internal capital generation, which is bank profits” (Interviewee C).

According to interviewees D and E, the importance of capital adequacy is confirmed by the recent financial crisis and that the most important concern of the Central Bank and the government is the recapitalization of banks.

“Banks need to have a strong capital base to avoid intervention from the Central Bank, and one way to achieve this is through increases in profits” (Interviewee F).

“Interviewee G suggested that banks have strong motive to increase profitability so as to increase the capital base”.

“A strong capital base is extremely significant and it can be increased with profitability” (Interviewee H).

Interviewees I and L said that, banks need to maintain the minimum capital adequacy requirements and accounting profits is a means to achieve this purpose.

“The requirement to maintain a minimum capital adequacy ratio does create the incentive to manage profits so as to increase the capital base” (Interviewee J).

“Profitability can be used to boost the capital adequacy and satisfy the supervisory authorities” (Interviewee K).

“A major issue that concerns the Central Bank is a strong capital base, so if profitability helps a bank to achieve this goal, then yes capital adequacy is an incentive for earnings management” (Interviewee M)

Incentive 2: Attract and Maintain Shareholders, Stock Price Effect.

The respondents disagreed that earnings management was used to attract and maintain shareholders during the period for which the research is conducted. During this time, banks were considered to be financially strong and nobody expected that they would end up having such serious troubles. Dividends and adequate capital base seem to help gain market confidence and keep shareholders happy. More specifically, it was stated:

“The banks in Cyprus had no problem in attracting shareholders because they were considered by everybody as sound organizations where the investments were safe” (Interviewee A).

“Two of the largest banks in the sample have been in the market for over one hundred years and have survived the Turkish occupation without serious problems. That is why nobody was afraid to buy shares because nobody believed that the two banks with the highest systemic importance would have such serious problems” (Interviewee B).

“Banks could attract and keep shareholders by paying dividends” (Interviewee C).

“It is a strong capital base that helps to attract and maintain investors. By increasing the capital base, banks gain market confidence” (Interviewee D).

“Investors in Cyprus do not really make informed investment decisions, so they do not really look at bank profits. The decision to buy or sell shares can be influenced by hearsay” (Interviewee E).

“Most individual investors never read financial statements prior to making their decision; in Cyprus it was commonly accepted that investing in bank shares was a safe choice” (Interviewee F).

“Up to the period of the crisis, banks in Cyprus attracted shareholders with great ease, so there was no need to manage profits to achieve this” (Interviewee G).

Interviewees H, K and M agreed that prospective shareholders did not analyze the financial statements as such; they got information about banks from other sources like the news, media etc.”

“Most of the investors in Cyprus bought bank shares without analyzing final accounts. They only cared about dividends” (Interviewee I).

“The mentality in Cyprus was that banks were one of the best choices for an investment; I do not believe that people looked at the bottom line profit prior to making their decision” (Interviewee J).

“Individuals and other small institutional investors like private provident funds, were attracted simply by dividends” (Interviewee L).

Incentive 3: Compensation Considerations of Executive Directors and Key Management Personnel

The opinions of the respondents concerning compensation of executive directors differ. Two of the participants said that bonuses and stock options do not provide incentives for earnings management. It should be noted that these comments were made for the two small banks in the sample that have paid no bonuses. They have only granted stock options and for some of these options there was a condition to hold upon retirement. The remaining interviewees thought that variable compensation has led boards to engage in activities that would increase their own wealth. More specifically, it was stated:

“I do not believe that bank boards allow earnings management in order to increase their own personal wealth” (Interviewee A).

“Earnings management does not happen for the sake of compensation but for the sake of the ability to pay large dividends to keep shareholders happy” (Interviewee B).

“The desire to increase personal wealth, has led boards to engage in opportunistic activities” (Interviewee C).

“Bank boards are currently being blamed that their personal greed has driven their actions and decisions” (Interviewee C).

“The bankruptcy of one of the largest bank and the struggling for survival of another proves that bank boards have behaved opportunistically” (Interviewee D).

“If you wish to determine the importance of the compensation you just consider that, a board member that resigned requested that his bonus be paid to him immediately. And this bonus was paid by a bank that used depositors’ money to recapitalize” (Interviewee E).

Interviewees F, G, and I said that, the recent financial crisis is evidence of the risks taken by executives in order to maximize profits and their personal wealth.

“The personal greed has led executives to make bad decisions so as to maximize profits and secure their bonuses” (Interviewee H).

“The fact that there are pending law suits against board members for questionable practices, including their compensation, proves that the executives’ only concern was their personal wealth” (Interviewee J).

“Generous incentive schemes were in place, awarding bonuses based on short term performance targets, thus encouraging risky behavior” (Interviewee K).

“Board members and other top managers cared about maximizing their compensation and I believe they would do anything to secure it, including management of earnings” (Interviewee L).

“The ongoing investigation of bank practices focuses on some creative accounting choices made so as to secure executive bonuses. So yes, I think compensation creates a motive to manage profitability” (Interviewee M).

Incentive 4: Job Security Concerns

According to the respondents, job security was not a strong motive for earnings management in order to avoid dismissal. More specifically:

Interviewees A, B, C, D and E agreed that, during the period of the study, no board member, or chief executive or senior manager has performed their duty fearing dismissal. Even though the shareholders could remove board members, this has not happened. Nor has any chief executive been removed because they have not done their job properly. So job security was not a strong motive for earnings management.

Interviewees G and K said that, up to the period of the crisis, banks were one of the most popular employers because of job security. So managing profits especially to avoid dismissal was not a concern.

“There was no issue of dismissal from banks. Even when the crisis made itself evident, board members resigned and other top executives accepted voluntary retirement schemes” (Interviewee F).

“There has not been a case where board members or top executives were removed from position due to profitability concerns” (Interviewee H).

Interviewees I and L agreed that, job security was not an issue for bank employees. So there was no need to engage in earnings management particularly for keeping the job.

“I do not believe that the fear of dismissal could be a reason for trying to boost profits because, in Cyprus, having a job at a bank meant security” (Interviewee J).

“Nobody got fired from banks, even after the crisis” (Interviewee M)

Question 2

“It would be appreciated if you could have a look at the list of opportunities for earnings management. Would you like to comment on how frequently each item is used and which one(s) do you think are the most important?”

The opportunities for earnings management and a summary of the respondents’ comments follow:

Opportunity 1: Loan Loss Provisions, Loan Impairment, Non-Performing Loans, Renegotiated Loans

All respondents strongly agreed that loan loss provisions and impairment of loans is the most important item used for earnings management because of its highly discretionary nature and because of its recurring and large impact on profits. More specifically, the following arguments were made:

Interviewees A and B argued that, provisions for loan losses are based on a large number of subjective parameters and can definitely be used for earnings management.

“Since loan loss provisions are estimated both on individually important loans and on loans that are collectively evaluated there is a lot of discretion and so this item can be used to manage profits” (Interviewee C).

“It is an item that is used for managing profitability every year due to its large effect on reported profits” (Interviewee D).

“The importance of loan loss provisions is confirmed by the fact that the most frequent disagreements between banks, auditors and the Central Bank are about the level of impairments and provisions of loans and advances to customers” (Interviewee E).

“Loan loss provisions are definitely an opportunity for earnings management, because these provisions are estimated by considering a large number of subjective factors” (Interviewee F).

Interviewees G and H agreed that, managers have a lot of discretion when estimating loan loss provisions, so this item can be used to manage profits.

“Loans are a bank’s largest asset; so loan loss provisions, if managed, are likely to have a large impact on profitability” (Interviewee I).

“There is a lot of discretion when evaluating the loans, either individually or collectively, so the loan loss provisions can be managed in order to affect the bottom line profit” (Interviewee J).

“One of the most discretionary expenses that appear on a bank’s income statement is loan loss provisions, and it can be used to manage profitability (Interviewee L).

Interviewees K and M also suggested that, the estimation of loan loss provisions involves a lot of uncertainty, so it can be used for earnings management.

Ten participants disagreed that banks could manage the value of collaterals so as to avoid the classification of loans as non-performing. This is because the valuations are made by independent experts; they are non-recurring and are challenged by auditors and the Central Bank. More specifically, the following arguments were made:

“Valuations of collaterals are made by independent professionals who hold a relevant degree and must follow certain guidelines when conducting their valuation” (Interviewee A).

Interviewees B and E agreed that collateral valuations are audited and have to be accepted by the Central Bank.

“Banks revalue collaterals every three years, because the cost is charged to the customers and they don’t wish to dissatisfy clients. Hence, valuation has a non-recurring impact on profitability” (Interviewee C).

Interviewees F, H and J agreed that, collateral values cannot be overestimated because valuations are done by experts.

Interviewees G, and I suggested that, valuations are made by independent professionals with the necessary qualifications and expertise.

“The individuals that carry out the valuations have a relevant degree and follow specific guidelines when making their appraisals” (Interviewee K).

“Collateral values must be accepted by the auditor as well” (Interviewee L).

“Industry practice is that collaterals should be revalued every three years, so even if valuations were used to keep loans out of the non-performing category, that would have a non-recurring effect on profitability” (Interviewee M).

Three individuals agreed that, the valuation of collaterals can be used for earnings management. More specifically they said:

“Non-classification of loans as non-performing due to presumably sufficient collateral can be used as a way to manage profits” (Interviewee D).

“It is the optimistic value of collaterals that has allowed banks to give loans generously and hence be able to report higher interest revenue and higher net profits” (Interviewee G).

“Banks in Cyprus have managed to continue to treat their loans as performing, even if there were arrears, because of inflated collateral values” (Interviewee M).

Twelve of the participants disagreed that renegotiation of loans is made in order to manage profits. They said that renegotiations are made to facilitate customers and only if there is collateral and evidence of paying ability. One individual (Interviewee D) agreed that, renegotiations were used for some time to continue to book interest income on the income statement. More specifically:

Interviewees A and B agreed that renegotiations are used mostly as a tool to help customers.

“Banks are reluctant to start legal procedures because of the long period of time that is needed to resolve such issues through court. So instead of waiting, banks prefer to make adjustments to the terms of the loan and secure cash flows” (Interviewee C).

“Renegotiations are made only if there is evidence provided by customers concerning their future repaying ability, with additional collateral” (Interviewee E).

“Only if a customer can provide evidence about his/her future paying ability and if there is further collateral, the bank will consider a restructuring off the loan” (Interviewee F).

Interviewees G, K and M said that, renegotiations are only considered when there is a real need to help customers.

“A bank will accept to do a loan restructuring only if there is serious evidence that the customer has difficulty to make payments and there is evidence for this inability i.e. reduction in salary” (Interviewee G).

“Renegotiations are used as a tool to help customers provided that the latter can provide evidence that they can continue to pay the reduced installment” (Interviewee H).

Interviewees I and L said that, banks enter into restructuring agreements with customers that have financial difficulty in order to avoid default and secure some cash flows.

Opportunity 2: Realized Gains and Losses from the Sale of Investments, Unrealized Gains and Losses from Revaluation, Impairment, Reclassification

All respondents strongly agreed that realized gains and losses from the sale of investments can be used as a tool to manage earnings. This is because investments comprise a large bank asset and gains and losses from disposal can have a recurring and large impact on profits. The arguments made were the following:

Interviewees A and B supported that, investments are purchased with the intention to produce income in the form of interest, dividends and capital gains, so they are used for earnings management.

Interviewees C and D said that, it is part of the banking business to take advantage of interest rate movements and share prices that yield capital gains and hence increase profits.

“We cannot really challenge managers about their decision to sell or not; so yes realized gains and losses can be used to manage profits” (Interviewee E).

“Investments can be used for earnings management, particularly the trading investments, for which there is a market and they can be sold quickly” (Interviewee F).

Interviewees G, J and K suggested that, investment securities can be sold at management’s discretion, so investment disposal can be timed.

Interviewees H and I said that, as a general rule, banks make investments in order to secure revenue, but where investments values have risen, they can be sold to book profits.

“Decisions to sell investment cannot be challenged even by the auditor, so managerial discretion is not limited” (Interviewee L).

“Investments are a bank’s major asset that can be bought and sold quickly either to minimize further losses or to recognize gains” (Interviewee L).

All the respondents disagreed that unrealized gains and losses can be used as a way to manage profitability. The comments made were as follows:

Interviewees A, B, C, D and E argued that, banks hold investments that are valued mostly using Level 1 and Level 2 inputs. Therefore, the measurement reliability is high.

Respondents F, G, H, I, J, K, L and M argued that, banks in Cyprus usually hold investments that are listed and therefore are actively traded. Thus the fair value is the quoted market price. The participants also said that, even if the market for investments is not active, fair value measurement is done by reference to similar instruments and the measurement liability is considered high.

Eleven respondents disagreed that the impairment of investments is a tool for earnings management. More specifically:

Interviewees A, B, C, D and E commended that impairments are challenged by auditors and by the Central Bank supervisors.

Participants F, H, I, J, K and L argued that an impairment test is conducted when there is serious evidence that the value of the investment is significantly below cost and if there is evidence that the issuers have financial difficulties (i.e. reorganisation or bankruptcy) or if there are problems in the economic or legal environment of the investee company.

Respondents I and J added that the impairment assumptions must be accepted by the auditor and the Central Bank.

Individuals F, H and K also said that, testing associates for impairment does not happen every year, so the non-recurring nature of this item makes it unlikely that it can be used for earnings management.

Individuals G and M had a different opinion. In particular:

“Investments are large assets for banks; their impairment is highly discretionary and when understated, it can have a large impact on profits” (Interviewee G).

“A lot of assumptions are made when estimating impairments and they can be used to manage profitability” (Interviewee M).

Twelve individuals said that, reclassification of investments between categories could not be used for earnings management. It was argued that reclassifications are made only when there has been a change of management intent regarding the asset. In

addition, reclassifications are challenged by the auditor and the Central bank. More specifically it was stated:

“Reclassifications can be made only if there is a change in management intent with respect to the assets since initial recognition” (Interviewee A).

“Reclassifications are made only if there is clear evidence about a change in the conditions of issuer. Our bank has investments classified as held to maturity in another bank that is under resolution. Because the future of the bank is questioned, we can reclassify these assets as available for sale” (Interviewee B).

“Any reclassification must be approved by the Asset and Liability Committee which may limit managerial discretion to engage in such activities for earnings management reasons” (Interviewee C).

“If reclassifications are made for the wrong reasons, then banks are likely to receive qualified audit opinions” (Interviewee E).

Interviewees F J and K said that, an investment can be reclassified only if the managers have really changed their intentions about the particular investment, as prescribed by the accounting standard.

Interviewees G, L and M suggested that, a bank should be in a position to justify a reclassification decisions to the Central Bank, so it cannot be done arbitrarily.

“Any reclassification must meet the conditions prescribed in the relevant Accounting Standard. If the conditions cannot be met, the reclassification cannot be done” (Interviewee H).

“If reclassifications cannot be justified, the bank is likely to receive a qualified audit opinion” (Interviewee I).

Only one had a different opinion. This person said:

“Reclassifications have been made for a while with the intention to manage profits in the future” (Interviewee D).

Opportunity 3: Increase in Insurance Liabilities

All the participants disagreed that the level of insurance liabilities can be used by banks for managing profitability. This is because the estimates are made by experts and the reliability of the measure is considered to be high. More specifically:

Interviewees A, B, C and D commented that, it is common industry practice for these decisions to be made by independent actuaries.

“The assumptions made for the level of insurance liabilities cannot differ from the reality a lot because they have to be accepted by the auditors” (Interviewee E).

Interviewees F, I and J said that, all the assumptions about insurance liabilities are made by actuaries who are independent professionals.

Interviewees G, K and L also suggested that, decisions about actuarial assumptions are made by individuals with relevant qualifications and experience.

“The insurance cost taken to the income statement cannot be used for earnings management, because the decisions are made by independent experts” (Interviewee H).

All assumptions made about the insurance liabilities can be challenged by the auditor (Interviewee M).

Opportunity 4: Depreciation, Amortization and Impairment of Property, Plant, Equipment and Intangibles

The participants disagreed that depreciation and amortization provide significant flexibility to manage profits. They commented that the depreciation method used is the straight line and this is not frequently changed. They also said that the depreciation estimates are made within a specific range and are not frequently changed.

Eleven of the respondents disagreed that impairments can be used to manage profits. More specifically:

Individuals A, B, C, D and E argued that impairments of these assets are not recurring and that they are challenged by auditors and by the Central Bank supervisors.

Participants F, H, I, J K, and L said that an impairment test is conducted for property plant and equipment when the market value of the asset has declined or if the cash flows needed to operate the asset exceed expectations.

Respondents F, H, I, J K, and L also claimed that for intangibles like goodwill or insurance contracts, the impairment is deemed necessary when the cash flows generated from the assets are less than expected. Technological changes determine when software should be tested for impairment.

Respondents J and H added that the impairment assumptions must be accepted by the auditor and the Central Bank.

Individuals F, H and K also said that, impairment test are not conducted every year, so the non-recurring nature of this item makes it unlikely that it can be used for earnings management.

Individuals G and M had a different opinion. They argued that, impairment estimates are based on a lot of assumptions and this expense may be underestimated

Opportunity 5: Sale and Revaluation of Investment Properties

The respondents disagreed that sales of investment properties are used for earnings management because of its non-recurring nature. The arguments made were as follows:

Interviewees A and D agreed that, banks acquire such properties not for capital appreciation purposes but as part of debt-settlements. But since investment properties are obtained at a good price, when they are sold they are likely to book profits.

“According to the Central Bank, these properties must be sold within three years from acquisition date, so waiting longer than hoping for more capital appreciation is not possible” (Interviewee E).

Interviewees B and C said that, investment properties do not comprise a large item, their sale is non-recurring thus not making them a useful tool for earnings management.

Interviewees F and H suggested that banks hold investment properties because they accept them in order to settle debts, not because they can time their sale to book profits.

Interviewees G and I said that, investments properties are properties that have been seized; banks eventually dispose of them, and if they manage to book a profit that's even better.

Interviewees J and L claimed that banks do not hold investment properties for capital appreciation purposes; the Central Bank requires that these properties be disposed within three years from the day they were obtained.

Interviewees K and M suggested that, the size of investments properties held by banks is not so large, so that it would justify the timing of a sale in order to book a gain.

Eleven of the respondents disagreed that the revaluation of investment properties provides flexibility for manipulation. The comments made were:

Individuals A, B, C, D and E stated that the evaluation is done by independent professional evaluators who must follow certain guidelines when conducting their evaluation i.e. the age of the property, prices of similar properties in the nearby area and so on. Thus the reliability of the measure is considered to be high.

Interviewees F, H and K agreed that, revaluation of investment properties cannot be used to inflate earnings, because valuations are done by experts.

Similarly, interviewees J and L suggested that, valuations are made by independent professionals with the necessary qualifications and expertise.

“The individuals that carry out the valuations have a relevant degree and follow specific guidelines when making their appraisals, i.e. the age of the property, prices of similar properties in the nearby area and so on” (Interviewee I).

Two individuals, G and M, agreed that revaluations of investment properties can be used for earnings management. They argued that, revaluations can be optimistic in order to increase bank profits.

Opportunity 6: Defined Benefit Plans, Cost of Share Based Payments

The participants disagreed that defined benefit plans are used by banks for managing profitability. This is because defined benefit plan estimates are made by experts, they are non-recurring and must be accepted by the auditor. More specifically it was stated:

“Even though a lot of assumptions are involved when making estimates, these are made by independent actuaries” (Interviewee A).

Interviewees B and E agreed that, the assumptions made cannot be unrealistic and they have to be accepted by the auditor as well.

“Even if this item could be used as a way to affect reported profits, its impact would be non-recurring because changes in actuarial assumptions are made every two to three years” (Interviewee C).

“The significant impact on profitability has not come from changes in actuarial assumptions but from the change from defined benefit to defined contribution plans as of 2012 (Interviewee D).

Respondents F, G, H, I, J, K, L and M said that the assumptions about these plans are made by actuaries who are independent professionals, with qualifications and expertise. So the plan cost cannot be used to manipulate profits.

Respondents J, K and L also stressed that, actuarial assumptions are not revised yearly, so even if banks could manipulate the cost, the impact on profitability would be non-recurring.

Finally interviewees F, G, H, I, J, K, L and M claimed that the plan cost assumptions must be accepted by the auditor as well.

With reference to the cost of share options the respondents did not agree that this is an item with a potentially strong impact on reported profits because of its size and because it is audited. In particular:

Interviewees A and B argued that, the amount of the stock options is not so large, so it is unlikely to be managed due to its small impact on the income statement.

Interviewees C and D said that, valuation of options involves estimates, but there is a reasonable range within which these estimates can fall.

“Stock option valuations must be accepted by auditors, therefore, discretion is limited” (Interviewee E).

Individuals F, G, H, I, J, K, L and M disagreed that stock options is used for earnings management. They argued that the compensation packages in Cyprus include a small amount, so even if this item was manipulated, the potential impact on the bottom line profit would be small.

Opportunity 7: Impairment of Associates

Eleven of the interviewees disagreed that the impairment of associates can be underestimated in order to affect bank profits because it is non-recurring and because it is challenged by the auditor and the Central Bank. The following comments were made:

Interviewees A and C agreed that this is a non-recurring item and it is not likely to be used for earnings management.

Interviewees B and D said that, banks in Cyprus conduct such impairment tests only when there are serious going concern issues, such as the company has law suits against it or a lot of defaults on its liabilities.

“The assumptions involved in the determination of the impairment have to be accepted by auditors and the Central Bank” (Interviewee E).

Participants F, H, I, J, K and L said that an impairment test is conducted when there is serious evidence that operations of the associate are deteriorating, possibly leading to future reductions in cash flows.

Respondents J and L added that the impairment assumptions must be accepted by the auditor and the Central Bank.

Individuals F, H and K also said that, testing associates for impairment does not happen every year, so the non-recurring nature of this item makes it unlikely that it can be used for earnings management.

Two Interviewees, G and M, agreed that the impairment of associates can be used to manage profits. They argued that, such an impairment test is based on

projected cash flows from the associate as a whole business, and the projections are highly uncertain.

Opportunity 8: Realized Gains and Losses from Sale of Derivatives, Revaluation of Derivatives

The interviewees disagreed that realized gains and losses from the sale of derivatives can be used as a tool to manage earnings. They claimed that, derivatives are not purchased for speculative purposes. They said that, banks buy derivatives in order to hedge the risks to which they are exposed. Derivatives are derecognized from the books when they have expired, terminated or exercised.

The respondents also disagreed that unrealized gains and losses can be used as a way to manage profitability. More specifically:

Interviewees A, B, C, D and E argued that, banks hold derivatives that are valued mostly using Level 1 and Level 2 inputs. Therefore, the measurement reliability is high.

Respondents F, G, H, I, J, K, L and M argued that, banks in Cyprus usually buy or sell derivatives through organized exchanges. So derivatives are actively traded and have a quoted price. This does not leave any room for managing any unrealized gains and losses recognized when derivatives are marked to market at year end.

Opportunity 9: Reduction of Deferred Tax Asset

The respondents disagreed that impairment of the deferred tax asset can be underestimated so as to increase profits. More specifically, the following comments were made:

Interviewees A, B, C and D agreed that this item is challenged by the auditors and the Central Bank”.

“The Central Bank cooperates with the tax authorities, which may question the level of provisions to reduce tax assets and may make recommendations for revisions” (Interviewee E).

Respondents F, H, I, J, K and L argued that, the reasons that determine whether a deferred tax asset will be realized include: loss carry forwards, sufficient temporary differences and tax planning opportunities. Where a bank has a loss carry forward option, which would mean it has a loss, the loss would be visible to auditors and the Central Bank. The auditors are also in a position to determine if temporary differences caused by depreciation, loan loss provisions etc. are sufficient to so that the deferred tax asset will be realized. Finally, the respondents said that, where auditors provide tax services to their clients, they should be aware of future tax planning opportunities.

Two Individuals, G and M, agreed that the reduction of the deferred tax asset can be understated in order to manage profits. They said that such impairment test is based on a lot of forward looking assumptions, which are highly discretionary.

Question 3

“It would be appreciated if you could have a look at the list of disincentives for earnings management. Would you like to explain how much each item affects managerial decisions and which items do you think are the most important?”

The disincentives for earnings management and a summary of the respondents’ comments follow:

Disincentive 1: The Cyprus Stock Exchange and Company Laws

The respondents disagreed that these laws were binding for bank boards, at least during the period of the research. More specifically:

Respondents A, B, C, D and E disagreed that these laws were binding for bank boards. They argued that, up to the period of the crisis, no director has been imprisoned or requested to pay a fine for damages caused to investors. Neither has the Stock Exchange asked any bank to make restatements of their accounts due to misleading

information. This would apply more to situations of fraud and not earnings management within the GAAP.

“These laws have not restrained the actions of board members or other top executives, so how could they have mitigated earnings management” (Interviewee F).

“The Cyprus Stock Exchange has never questioned the quality of financial reports of listed firms” (Interviewee G).

“I do not believe that the provisions of the Company Law and the Cyprus Stock Exchange Law have been properly enforced, so how could they be a disincentive for profit manipulation” (Interviewee I).

“The regulatory framework is in place, but I do not believe that it is been strictly adhered to” (Interviewee M).

Respondents H, J, K and L argued that, in Cyprus, no banker has gone to jail or at least asked to pay for damages caused to investors or depositors. So the provisions of the above mentioned laws will hopefully be a disincentive for earnings management in the period after the crisis.

Disincentive 2: Effective Boards and Effective Audit Committees

The respondents disagreed that the audit committees can act as a disincentive for earnings management, but bank boards are considered extremely important in controlling earnings management. Specifically, the following comments were made:

“Even though audit committees perform their duties diligently and do a thorough investigation of the financial statements, the final approval comes from the board” (Interviewee A).

Interviewees B and D agreed that, audit committee members are part of the board so the control of earnings management is ultimately exercised by the board.

“The responsibility to govern and control banks rests with the board of directors, who should recognize the importance of implementing sound practices in order to maximize shareholders’ wealth” (Interviewee C).

“The importance of bank boards is confirmed by the fact that, when the directors of one of the surviving banks resigned, it took the government a month to appoint new members. This is because nobody wants to be a director since they now realise their huge responsibilities” (Interviewee E).

Individuals F and I argued that the ultimate responsibility for good corporate governance and honest financial reporting rests with bank boards

Respondents G and J argued that the various board committees, including the audit committee are derived from the board; so if there is a need to constrain earnings management, this should come from the board.

Interviewees H and K suggested that the audit committee is supposed to ensure that the final accounts present the true and fair view, but the ultimate responsibility belongs to the board.

“Boards had the responsibility to ensure that banks had proper procedure to monitor and control risks and provide necessary checks for top managers” (Interviewee L).

“The importance of bank boards is confirmed by the fact that, the pending lawsuits for damages caused to both shareholders and depositors are against board members and not simply audit committee members” (Interviewee M).

At this point the participants were asked: “since there are legal requirements for independent boards which should include competent and fit individuals, how is it possible that our banking system is in this predicament?” The answers were:

Interviewees A, B, C and E agreed that, the legislation is there, the willingness to obey is there, but there are no right people to implement it.

“Board members are not bankers, they don’t know anything about banking operations and that is why our banking system is now in crisis” (Interviewee D).

The remaining participants (F, G, H, I, J, K, L and M) agreed that, even though the Central Bank has all the powers necessary to ensure that banks operated prudently, these powers were not rigorously enforced.

Disincentive 3: Inside Ownership

With reference to inside ownership, six respondents agreed that inside board ownership, acquired in the form of stock options is an important disincentive for earnings management. The comments made were as follows:

“Stock options put board members in the same position with shareholders. The boards’ obligation is to supervise management and not to satisfy their own personal interest in the short run” (Interviewee A).

Respondents F, G, I, K and L agreed that inside board ownership, acquired in the form of stock options could be an important disincentive for earnings management. These individuals said that compensation packages in Cyprus include a small portion in the form of stock options. It is possible that more inside ownership could provide executives with an incentive to think about the value of their investment in the long run.

The remaining participants argued that compensation in the form of stock cannot limit earnings management. More specifically:

Interviewees B and C agreed that, the award of stock options has led to personal greed and as a result earnings management was used to maximize boards’ own wealth.

Interviewees D and E said that bank boards have operated without ever considering the shareholders or the depositors, they cared only about their personal wealth.

Participants H, J and M said that, up to the period of the crisis, bank boards have proven that they care about their personal wealth. If profitability has an increasing effect on stock price, board members will manage earnings to maximize the value of the shares they hold.

Disincentive 4: Active Engagement and Dialogue by Shareholders

The respondents disagreed that active engagement and dialogue is a controlling mechanism for earnings management, simply because shareholders are not active. It

was argued that:

“The role of shareholders is cosmetic” (Interviewee A).

“Some shareholders may come to the annual general meetings and ask questions about the final accounts but their contribution is not significant” (Interviewee B).

“Shareholders and especially smaller ones view themselves as having a negligible effect on shareholder meetings and they opt out of bank control” (Interviewee C).

“A few shareholders, who are usually the same people, shout at general meetings, even if there is no real problem, without offering any constructive comments” (Interviewee D).

“Shareholders become really involved only in times of crisis, when their investment is in danger” (Interviewee E).

Individuals F and M said that shareholders did not care about engagement, most of them were invited to the general annual meetings and did not come.

Participants G and L argued that most of the bank shareholders were individuals that had no knowledge of accounting and other bank issues, so essentially they had no “voice”.

Respondents H and K suggested that, shareholders in Cyprus became involved only when the crisis became evident and their investments were wiped out.

Finally, individuals I and J claimed that, many shareholders did not come to the meetings, but even those who did come had nothing significant to contribute due to lack of skills in accounting and other bank issues.

Disincentive 5: The Quality of Audit

Four individuals agreed that auditing is a disincentive for earnings management>

More specifically:

“The quality of the audits is enhanced because they are conducted by the Big Four auditors who are more experienced. And auditing independence is secured by separating auditing and other services” (Interviewee A).

“Auditors do challenge management on estimates they don’t approve and also

prepare a report to managers on things they should correct (the management audit report) in order to improve the true and fair view of the final accounts” (Interviewee E).

Individuals F and G argued that, in Cyprus, the bank audits are conducted by auditors of the Big Four accounting firms. Given that these auditors are more experienced, they should be in a position to challenge management on issues they do not agree, including accounting estimates and choices.

The remaining respondents argued that the quality of the audit is compromised and hence cannot limit discretion over reported profits. More specifically:

“Auditors have developed a lot of inter-personal relationships with their customers and therefore their independence is compromised” (Interviewee B).

“The fact that there is no audit rotation points to their lack of independence and hence the quality of the services offered” (Interviewee C).

“It is questionable if the quality of the audit is a control of earnings management due to lack of independence and the high fees paid to audit firms” (Interviewee D).

Individuals H and K said that, the audit independence is compromised because two Big audit firms are responsible for the audit of nine out of the twelve commercial banks in the country. So this audit concentration may make auditors more inclined to satisfy customer wishes.

Respondents I and J suggested that, the audit firms in Cyprus offer a lot of non-audit services to banks, hence audit independence may be compromised due to the high non-audit fees paid.

Finally, participants L and M argued that, there is no audit rotation and auditors have developed close relationships with their customers. This makes it possible that auditors may be tolerant to creative accounting.

Disincentive 6: The Relationship Between Auditors and the Central Bank.

Except for the auditor, the interviewees did not consider the relationship of auditors with the Central Bank to be a disincentive for earnings management. More specifically:

Respondents A, B, C and D confirmed that the required tripartite annual general meetings do take place and the items discussed are mainly determined by the Central Bank. Even though auditors are allowed to ask for the inclusion of other items on the agenda, about which the bank concerned may disagree, this has never occurred. The auditors have never asked for bilateral meetings with the Central Bank because they had suspicions that the bank concerned violated the Banking Law. They usually take the side of the bank they audit.

Respondents F, H, J and L stressed that, auditors should have understood that Central Bank's major role was to protect depositors and hence auditors should have provided the Bank with all the necessary information for inspection and supervision.

"No auditor has requested for a bilateral meeting with the Central Bank in order to communicate any suspected violations of the laws or inadequate applications of accounting standards" (Interviewee G).

"Trilateral meetings between the bank, the auditors and the central banks were not arranged on a regular basis i.e. annually" (Interviewee I).

"The relationship of auditors with the central bank seems to have been neglected up to the period of the crisis" (Interviewee K).

"In the trilateral meetings, there were instances where the auditor sided with management" (Interviewee M).

Disincentive 7: Supervision and Inspection by the Central Bank

The respondents disagreed that the supervision and inspection by the Central Bank has acted as a disincentive for earnings management, a fact which is confirmed by the recent financial crisis. More specifically:

Interviewees A and D agreed that, the recent financial confirms that Central Bank has not been discharging its inspection and supervision duties properly.

Interviewees B and E said that, lax supervision by the Central Bank is confirmed by the fact that, some members of the Central Bank's board have resigned, claiming that their role was cosmetic and that they were not allowed to perform their duties properly.

“Supervision and inspection by the Central Bank does not act as a disincentive for earnings management simply because those responsible do not do their job properly” (Interviewee C).

All respondents (F, G, H, I, J, K, L and M) agreed that, the financial crisis confirms that the Central Bank has obviously been ineffective with its inspections and supervisions

“Inefficient supervision has not restrained Cypriot banks from investing heavily in Greece, a country facing problems for so many years (Interviewee F).

“Up to the period of the crisis, the supervision and inspection division of the Central Bank was potentially under resourced in terms of numbers and experience of staff members (Interviewee G).

“Supervisors did not properly identify and prioritize risks” (Interviewee J).

“The Central Bank failed to anticipate or mitigate the risks that banks were exposed to, especially for those banks that expanded in foreign markets, and specifically in Greece” (Interviewee K).

“Systemically important banks should have had more intensive supervision” (Interviewee M).

Question 4

“According to your experience, do you think that the list of incentives, opportunities and disincentives on earnings management is correct and complete? If not, what other items do you think should be included?”

All the participants confirmed that, based on their experience with banks and the laws and regulations that affect them, the list was complete and accurate.

The reason that this question was asked was because there was a need to establish that the conclusions from the regulatory review were accurate. The laws and the regulations are sometimes written in a way difficult to understand, they have been

amended over the years, so it was necessary to ensure that there were no mistakes. Second, it was crucial to confirm that the list was complete, because there would not be a chance for a second interview to discuss more issues. Thus, if participants, based on their experience, had a suggestion to make, the interview could be directed in such a way so as to include the new issues.

6.4 Most Significant Incentives, Disincentives and Opportunities for Earnings Management in Cyprus

After having conducted the interviews, the next step was analyse the data collected and determine which incentives, opportunities and disincentives were considered to be the most significant for Cyprus.

Table 19 on the following page includes a list of all the possible incentives for earnings management, and the number of interviewees that agreed or disagreed.

Table 19: Most Important Incentives for Earnings Management in Cyprus

| Incentives for earnings management | Agree | Disagree |
|---|--------------|-----------------|
| Increase profitability so as to increase the capital base for regulatory and internal capital adequacy purposes | 13 | 0 |
| Attract and maintain shareholders, stock price effect | 0 | 13 |
| Compensation considerations of executive directors and key management personnel | 11 | 2 |
| Job security concerns | 0 | 13 |

The above results show that for Cyprus, the most important incentives for banks' earnings management were the capital adequacy and the compensation of executives and key management personnel. These findings are confirmed by the Cyprus reality. When the financial crisis made itself evident, the most serious issues that attracted the attention of regulators, of the media and the public were the recapitalization of banks and the variable remuneration of boards. It is also true that nobody was fired from banks, at least up to the period of the crisis. Furthermore, the crisis also proves that banks were not sensitive about shareholders' interests. Based on these results, the two incentives that were examined in this research were the capital adequacy ratio and variable compensation in the form of a cash bonus.

Table 20 on the next page includes a list of all the possible opportunities for earnings management, and the number of interviewees that agreed or disagreed.

Table 20: Most Important Opportunities for Earnings Management in Cyprus

| Opportunities for earnings management | Agree | Disagree |
|---|--------------|-----------------|
| Loan loss provisions and loan impairments | 13 | 0 |
| Optimistic collaterals to avoid classifying loans as non- performing | 3 | 10 |
| Renegotiated loans | 1 | 12 |
| Real gains and losses from sales of investments | 13 | 0 |
| Unrealized gains and losses from investment revaluation | 0 | 13 |
| Impairment of investments | 2 | 11 |
| Reclassification of investments | 1 | 12 |
| Increase in insurance liabilities | 0 | 13 |
| Depreciation, amortization and impairment of property, plant, equipment and intangibles | 2 | 11 |
| Sale and revaluation of investment properties | 2 | 11 |
| Defined benefit plans | 0 | 13 |
| Cost of share based payments | 0 | 13 |
| Impairment of associates | 2 | 11 |
| Realized gains and losses from sale and revaluation of derivatives | 0 | 13 |
| Reduction of deferred tax asset | 2 | 11 |

According to the above findings, the most important opportunities for earnings management were the loan loss provisions and the real gains and losses from the sale of investments. For this reason, real securities gains and losses and loan loss provisions and impairments were included in the research study as opportunities for earnings management.

Furthermore, with reference to the remaining income statement variables, individuals G and M agreed that revaluations of collaterals and investment properties and asset impairments could be used as tools for earnings management.

All the other participants said that, the remaining income statement variables were not opportunities for earnings management arguing: non-recurring nature; small size and consequently small impact on profits; measurements by independent experts; or measurements based on evidence and by reference to similar transactions. They also claimed that these variables were not manageable because they were audited and challenged by the Central Bank. But when they were asked whether the quality of the audit and the supervision and inspection by the Central Bank could be disincentives for earnings management, they answered that auditors have not been independent and that the Central Bank has not been effective.

The problem with the opportunities for earnings management is that they involve choices and estimates that are not transparent like the incentives or disincentives for such practices i.e. they may never make the news. In view of the possibility that the participants did not want to reveal inside information about accounting choices, and because it was not possible to examine all income statement variables one by one, the researcher decided to use accruals as an additional measure for earnings management. Accruals are measured as the difference between net income and operating cash flows. Thus they include depreciation, amortization, revaluations, impairments etc. and capture earnings management in a comprehensive manner.

The following table includes a list of all the possible disincentives for earnings management, and the number of interviewees that agreed or disagreed.

Table 21: Most Important Disincentives for Earnings Management in Cyprus

| Disincentives for earnings management | Agree | Disagree |
|--|--------------|-----------------|
| The Cyprus Stock Exchange and Company Laws | 0 | 13 |
| Effective boards | 13 | 0 |
| Effective audit committees | 0 | 13 |
| Inside ownership | 6 | 7 |
| Active engagement and dialogue by shareholders | 0 | 13 |
| Quality of the audit | 4 | 9 |
| Relationship with the auditor and the Central Bank | 1 | 12 |
| Supervision and inspection by the Central Bank | 0 | 13 |

The above results show that for Cyprus, the most important disincentive for earnings management was the board of directors, a finding which is consistent with the Cyprus reality. When the financial crisis made itself evident, *only* board members were held responsible and consequently were sued. Nobody has blamed audit committees, bank auditors, or even shareholders for their lack of engagement. In addition, the inefficiency of the Central Bank was “quickly fixed” by replacing the previous governor, without penalties. Considering the above findings, one of the disincentives for earnings management that was examined in this research was the effectiveness of the board of directors.

With reference to inside ownership six individuals agreed that it can be a disincentive for earnings management and seven people had a different opinion. Inside ownership is acquired from stock options and seven out of thirteen individuals agreed that the award of stock options was an incentive for earnings management in order to maximize boards own wealth. However, there is evidence in the literature that, inside ownership can lead to the entrenchment effect or the alignment effect. For this reason, inside ownership was included in the research study as both an incentive and a disincentive for earnings management.

6.5 Summary

This chapter includes the results from interviews that were conducted in order to determine which of the incentives, opportunities and disincentives for earnings management were considered to be the most important in Cyprus.

Interviews were conducted with thirteen individuals. The sample included either a CEO or a CFO from each of the twelve commercial banks that operate in Cyprus. An auditor was also chosen because he works for an audit firm that is responsible for the auditing of five out of the twelve commercial banks in Cyprus. He is therefore experienced in banking matters.

The interview type was semi structured. Four general, open ended questions were prepared in advance. In all interviews, the questions asked were exactly the same and in the same order.

The interview results have shown that for Cyprus, the most important incentives for earnings management were the capital adequacy and variable compensation of executives and key management personnel. In addition, the most important disincentive for earnings management was the board of directors. Inside ownership acquired from stock options was treated as both an incentive (the entrenchment effect) and a disincentive for earnings management (the alignment effect).

The interview results have also shown that for Cyprus, the most important income statement variables that provide opportunities for earnings management were the loan loss provisions and the real gains and losses from the sale of investments. For the remaining income statement items, the participants said that, they were not used for earnings management arguing, amongst other justifications, auditing and challenge by the Central Bank. But at the same time, they argued that, auditors have not been independent and that the Central Bank has not been effective. In view of the possibility that the participants did not want to reveal inside information about accounting choices, and because it was not possible to examine all income statement variables one by one, the researcher decided to use accruals as an additional measure for earnings management because accruals capture earnings management in a comprehensive manner.

Chapter 7: Empirical Analysis, Part 2; Testing for Earnings Management

7.1 Introduction

At the beginning of the research, a critical evaluation of the earnings management literature was conducted and the research objectives were set. In the next stage, the laws that affect banks' financial reporting were critically evaluated, and this review produced a list of all the possible incentives, opportunities and disincentives for Cyprus. Interviews were then conducted with individuals involved in the financial reporting of banks, in order to determine the most significant incentives, opportunities and disincentives for earnings management for Cyprus.

This chapter includes the research hypotheses that were formulated based on the interview results. Executive compensation and capital adequacy were hypothesized to be incentives for earnings management whereas bank boards were assumed to be disincentives for earnings management. Other bank specific variables that could provide explanatory variations in earnings management were also considered. Loan loss provisions, real securities gains and losses and accruals were used as opportunities for earnings management. The remainder of this chapter is organized as follows: Section 7.2 includes the data and the methodology; Section 7.3 reviews how the incentives and disincentives can affect earnings management in order to formulate the hypotheses. Other bank specific variables that may provide explanatory variations in earnings management are also described; Section 7.4 includes the tests for earnings management; Section 7.5 presents the empirical results; and Section 7.6

includes an interpretation of the findings.

7.2 Data and Methodology

7.2.1 Data

As discussed in chapter 3: “The Banking Sector of Cyprus” banks are classified into three categories: local banks, branches of foreign banks (from EU and non- EU countries), representative offices.

Branches of foreign banks and bank representative offices are required to submit information about their activities to the Central Bank of Cyprus, but this information cannot be made publicly available since the host competent supervisory authority is binded by secrecy. Therefore, they are excluded from the study due to unavailable data.

The local banks are further classified as: commercial banks listed in the Stock Exchange; commercial banks that are subsidiaries of foreign banks; cooperative societies; and other banks. The subsidiaries of foreign banks, the cooperative societies and other banks are required to submit a copy of their final accounts with the Central Bank of Cyprus, but this information is not available because they are not listed. Hence, they are excluded from the study. The dataset used in this study is therefore limited to the four listed commercial banks in Cyprus, which are: the Bank of Cyprus, Laiki Bank, Universal Savings Bank and Hellenic Bank.

These banks became listed on March 29th 1996 when the Cyprus Stock Exchange began its operations. The corporate governance code was issued in September of 2001 and became a requirement as of 2002. Consequently, since this study examined the effect of corporate governance on earnings management, observations for the period from 1996 to 2001 were excluded due to the unavailability of governance information.

Bank of Cyprus, Hellenic Bank and Laiki Bank were able to comply with the code immediately. Universal Savings Bank was able to comply in year 2004. Hence, the period examined includes the following years: 2002 – 2011 for Bank of Cyprus, Hellenic Bank and Laiki; and 2004 – 2011 for Universal Savings Bank. This available information produced a total number of 38 firm-year observations, which constitute the total population.

According to Central Bank statistics, the total deposits of the sample banks constitute, on average, 54% of the total bank deposits, whereas the total loans comprise, on average, 49% of total bank loans. Therefore, the sample banks' practices represent the operations of half the Cyprus banking sector.

Accounting data have been extracted from the annual financial reports. The corporate governance data have been taken from the reports on corporate governance published by the banks, while share prices have been obtained from the Cyprus Stock Exchange.

7.2.2 Methodology

As explained in Chapter 5 "Theory of Methodology", this research is classified under the critical realism paradigm. Critical realism advocates methodological pluralism (Wikgren, 2005). Methodological pluralism or mixed approach in methodology allows the use of a combination of qualitative and quantitative methods (Zachariadis and Scott, 2010). Easton (2010) argues that a mixed methodology design can be sequential. In other words, the results of a qualitative analysis can be used as inputs in the quantitative analysis. The empirical results of a qualitative analysis can also help to reduce the data from the conceptual frameworks developed and help with the formulation of hypotheses. In this research study, the first part of the empirical analysis includes the results from interviews which were conducted with individuals involved in the financial reporting of banks. The interview results revealed the most significant incentives, opportunities and disincentives for earnings management for Cyprus and helped to formulate the hypotheses

In critical realism, if demi-regularities observed from the qualitative analysis can be quantified, regressions may be used, where structural variables can be treated as either independent or dependent variables (Olsen, 2009). The use of regressions is not about measuring laws, but about testing the hypotheses (Zachariadis and Scott, 2010). Consistent with this argument, since the results obtained from the interviews could be quantified, regressions were used to develop measures for earnings management and regressions were estimated to test the hypotheses. The incentives and disincentives for earnings management were treated as independent variables,

whereas the opportunities for earnings management were treated as dependent variables.

7.3 Incentives and Disincentives for Earnings Management and Other Bank Specific Variables

Considering the results from the interviews, the following hypotheses were formulated:

7.3.1 Executive Compensation

The remuneration package of executive directors may include both variable and non-variable components⁴⁸. The variable elements consist of bonuses and stock options, which are performance related. The term “performance” encompasses the evaluation of the individual performance as well as that of the performance of the bank. Variable remuneration that is connected to profitability therefore creates an incentive for earnings management.

When a cash bonus scheme exists, it encourages discretion to manage reported earnings upwards. This leads to the following hypotheses:

Hypothesis 1a: Ceteris paribus, variable executive compensation in the form of cash bonus will lead to higher levels of earnings management by overstating discretionary securities gains and losses and understating discretionary loan loss provisions.

⁴⁸ Company Law; Corporate Governance Code.

Hypothesis 1b: Ceteris paribus, variable executive compensation in the form of cash bonus will lead to higher levels of earnings management through the use of discretionary accruals.

When executive compensation is tied to the price of the firm's stock (through stock options) executives may allow earnings management to improve the apparent performance of the firm and, consequently, increase board members' personal wealth. Alternatively, the use of share options plans can be viewed as a way to align executive and shareholder interests. Stock ownership by executive board members gives them an incentive to monitor managers carefully. These arguments lead to the following hypotheses:

Hypothesis 2a: Ceteris paribus, higher levels of inside board ownership will lead to higher levels of earnings management by overstating discretionary securities gains and losses and understating discretionary loan loss provisions.

Hypothesis 2b: Ceteris paribus, higher levels of inside board ownership will lead to higher levels of earnings management through the use of discretionary accruals.

Hypothesis 2c: Ceteris paribus, higher levels of inside board ownership will lead to lower levels of earnings management through the use of discretionary securities gains and losses and discretionary loan loss provisions.

Hypothesis 2d: Ceteris paribus, higher levels of inside board ownership will lead to lower levels of earnings management through the use of discretionary accruals.

7.3.2 Capital Adequacy

According to the Banking Law (1997), the Central Bank requires banks to maintain a minimum capital adequacy ratio, which expresses the capital base as a proportion of the risk weighted assets and off balance sheet items. To ensure compliance with the minimum capital standards, the Central Bank can impose restrictive measures to non-complying banks. The minimum capital adequacy ratio can be managed if a bank changes the numerator, the denominator or both. Banks may pursue capital strengthening through the management of risk weighted assets or the increase in share capital. They may also increase both their capital base and the capital adequacy with internal capital generation through profitability. Therefore, when capital levels are low relative to the minimum required, managers have incentives to manage earnings in order to increase their capital adequacy ratios. This leads to the following hypotheses:

Hypothesis 3a: *Ceteris paribus*, lower levels of capital lead to higher levels of earnings management by overstating discretionary securities gains and losses and understating discretionary loan loss provisions.

Hypothesis 3b: *Ceteris paribus*, lower levels of capital lead to higher levels of earnings management through the use of discretionary accruals.

7.3.3 Board Effectiveness

Banks are governed and controlled by the board of directors, who must operate on the basis of the Corporate Governance Code published by the Cyprus Stock

Exchange, the Banking Laws and the Bank's Articles of Association. Bank boards should recognize the importance of implementing sound corporate governance together with practices followed by the various committees in order to maximize shareholders' wealth. Board effectiveness can be achieved through independence, splitting the role of the chairman and the CEO, whether the CEO sits in the nomination committee and board meetings.

7.3.3.1 Board Independence

The board of directors should have a balance of executive and non executive directors. At least 50% of the members of the board of directors, excluding the chairman, must be independent, non-executive directors⁴⁹. If the 50% rule is not met, then at least one third of the directors must be independent. If the board is dominated by a greater proportion of independent directors, it may play an important role in monitoring top management and hence associated with lower levels of earnings management. This leads to the following hypotheses:

Hypothesis 4a: Ceteris paribus, board independence leads to lower levels of earnings management through the use of discretionary securities gains and losses and discretionary loan loss provisions.

Hypothesis 4b: Ceteris paribus, board independence leads to lower levels of earnings management through the use of discretionary accruals.

⁴⁹ Corporate Governance Code

7.3.3.2 Splitting the Role of the Chairman and the CEO

The roles of the chairman and the CEO should not be exercised by the same individual⁵⁰. When the roles are not split, board independence is compromised because the chief executive has more power, potentially allowing for more management discretion. No duality may also allow the CEO to effectively control information available to other board members, thereby obstructing managerial monitoring. This leads to the following hypotheses:

Hypothesis 5a: Ceteris paribus, when the roles of the chairman and the CEO are not split, this will lead to higher levels of earnings management by overstating discretionary securities gains and losses and understating discretionary loan loss provisions.

Hypothesis 5b: Ceteris paribus, when the roles of the chairman and the CEO are not split, this will lead to higher levels of earnings management through the use of discretionary accruals.

7.3.3.3 The CEO Sits in the Nomination Committee

The independence of the board of directors may also be compromised if the CEO sits in the nominating committee because the CEO is involved in the selection of nominees for board positions. This leads to the following hypotheses:

⁵⁰ The Corporate Governance Code; Directive Issued to Banks on a Framework of Principles of Operation and Criteria of Assessment of Banks' Organisational Structure, Internal Governance and Internal Control Systems, May 2006; The Company Law.

Hypothesis 6a: Ceteris paribus, when the CEO sits in the nomination committee, this will lead to higher levels of earnings management by overstating discretionary securities gains and losses and understating discretionary loan loss provisions.

Hypothesis 6b: Ceteris paribus, when the CEO sits in the nomination committee, this will lead to higher levels of earnings management through the use of discretionary accruals.

7.3.3.4 Board Meetings

The board of directors must call one annual general meeting and as many extraordinary general meetings as they see fit⁵¹. The board of directors must dedicate the required time and attention in order to carry out their duties properly should meet regularly, at least six times a year⁵². When boards meet frequently, it may be assumed that they devote the required time to perform their duties diligently and remedy urgent matters. This leads to the following hypotheses:

Hypothesis 7a: Ceteris paribus, board activity will lead to lower levels of earnings management through the use of discretionary securities gains and losses and discretionary loan loss provisions.

Hypothesis 7b: Ceteris paribus, board activity will lead to lower levels of earnings management through the use of discretionary accruals.

⁵¹ The Company Law

⁵² The Corporate Governance Code

7.3.4 Bank Size

Large firms are considered to be politically visible since their activities affect a large number of people and because size conveys the feeling of power (Hagerman and Zmijeski, 1979). Even though bank regulators have the responsibility to maintain the safety and soundness of the entire banking industry, they have at least some tendency to scrutinize more closely the largest institutions that have the potential to severely impact the industry and the overall economy should problems arise. Consequently, larger banks may be less likely to engage in earnings management. The natural logarithm of total assets is used as a proxy for bank size. This leads to the following hypotheses:

Hypothesis 8a: Ceteris paribus, larger banks are less likely to engage in earnings management by overstating discretionary securities gains and losses and understating discretionary loan loss provisions.

Hypothesis 8b: Ceteris paribus, larger banks are less likely to engage in earnings management through the use of discretionary accruals.

7.3.5 Growth

Firms with increased growth opportunities are likely to report less discretionary accruals because they experience increased monitoring (Cornett et al., 2009). Therefore, increased monitoring provides fewer opportunities for earnings management. The market-to-book ratio of equity is used as a proxy of growth prospects. This leads to the following hypotheses:

Hypothesis 9a: Ceteris paribus, growing banks are less likely to engage in earnings management through the use of discretionary securities gains and losses and discretionary loan loss provisions.

Hypothesis 9b: Ceteris paribus, growing banks are less likely to engage in earnings management through the use of discretionary accruals.

7.3.6 Leverage

Firms with higher debt have more incentives to manage earnings in order to reduce the probability of violating covenants in debt contracts (Watts and Zimmerman, 1990). More leveraged banks are therefore expected to artificially inflate accounting earnings for reasons related to debt contract restrictions. This leads to the following hypotheses:

Hypothesis 10a: Ceteris paribus, more leveraged banks are likely to engage in earnings management by overstating discretionary securities gains and losses and understating discretionary loan loss provisions.

Hypothesis 10b: Ceteris paribus, more leveraged banks are likely to engage in earnings management through the use of discretionary accruals.

7.4 Testing for Earnings Management

This section includes the regressions estimated to develop the measures of earnings management (i.e. the opportunities) and the regressions that were estimated to test for earnings management.

7.4.1 Loan Loss Provisions and Realized Securities Gains and Losses

All the interviewees agreed that, the two income statement variables which can be used by banks in order to manage profits are the loan loss provisions and the gains realised from the sale of investments.

Hence, the first measure for earnings management was based on loan loss provisions (LLP's) and realized securities gains and losses (RSGL's). LLP's and RSGL's include both a non-discretionary and a discretionary component. The discretionary component is an appropriate estimate of banks' earnings management behaviour. Following Cornett et al., (2009) and Leventis and Dimitropoulos (2012) the following OLS regression model was estimated in order to calculate the discretionary part of LLP's:

Regression 1

$$\text{LOSS} = \alpha_{it} + \beta_1 \text{LnASSET}_{it} + \beta_2 \text{NPL}_{it} + \beta_3 \text{LLA}_{it} + \beta_4 \text{LOANM}_{it} + \beta_5 \text{LOANTR}_{it} + \beta_6 \text{LOANT}_{it} + \beta_7 \text{LOANC}_{it} + \beta_8 \text{LOANP}_{it} + \beta_9 \text{LOANO}_{it} + \varepsilon_{it}$$

where:

i = bank holding company identifier;

t = year (2002 to 2011);

LOSS = loan loss provisions as a percentage of total loans;

LnASSET = the natural log of total assets;

NPL = nonperforming loans as a percentage of total loans;

LLA = loan loss allowance as a percentage of total loans;

LOANM = manufacturing loans as a percentage of total loans;

LOANTR = trade loans as a percentage of total loans;

LOANT = tourism loans as a percentage of total loans;

LOANC = construction loans as a percentage of total loans;

LOANP = personal and professional loans as a percentage of total loans;

LOANO = other sector loans as a percentage of total loans;

ε = error term.

The discretionary component of loan loss provisions (DLLP's) was the error term from regression 1. The error term was standardized by total assets and the measure was defined as:

$$DLLP's_{it} = (\varepsilon_{it} \times LOANS_{it}) / ASSETS_{it} \quad (1)$$

where:

LOANS = total loans

ASSETS = total assets.

The measure of nondiscretionary loan loss provisions (NDLLP's) was:

$$NDLLP's_{it} = [(LOSS_{it} \times LOANS_{it}) / ASSETS_{it}] - DLLP's_{it} \quad (2)$$

The next step was to estimate the discretionary part of realized securities gains and losses (RSGL's). Following Cornett et al. (2009), the following OLS regression model was estimated:

Regression 2

$$RSGL's_{it} = \alpha_t + \beta_1 \ln ASSET_{it} + \beta_2 UNSGL's_{it} + \varepsilon_{it}$$

where:

i = bank holding company identifier;

t = year (2002 to 2011);

RSGL's = realized security gains and losses as a percentage of total assets (includes realized gains and losses from available-for-sale securities and held-to-maturity securities);

LnASSET = the natural log of total assets;

URSGL's = unrealized security gains and losses (includes only unrealized gains and losses from available-for-sale securities) as a percentage of total assets;

ε = error term.

The discretionary component of realized security gains and losses (DRSGL's) was the error term from regression 2 and the measure of nondiscretionary realized security gains and losses (NDRSGL's) was:

$$NDRSGL's_{it} = RSGL's_{it} - DRSGL's_{it} \quad (3)$$

Earnings management (EM) was then measured as the difference between discretionary real securities gains and losses (DRSGL's) and discretionary loan loss provisions (DLLP's).

$$EM_{it} = \text{DRSGL}'_{sit} - \text{DLLP}'_{sit} \quad (4)$$

Lower levels of loan loss provisions and higher levels of realized securities gains correspond to higher levels of earnings management, which, ceteris paribus, increase income.

Non-discretionary earnings management (NDEM) was measured as the difference between non discretionary real securities gains (NDRSGL's) and losses and non discretionary loan loss provisions (NDLLP's).

$$\text{NDEM}_{it} = \text{NDRSGL}'_{sit} - \text{NDLLP}'_{sit} \quad (5)$$

7.4.2 Accruals

For the remaining income statement variables most of the participants said that, they are not used for earnings management arguing that these items are challenged by the auditor and the Central Bank. But at the same time they all agreed that auditors have not been independent and that the Central Bank has not been effective. In view of the possibility that the participants did not want to reveal inside information about accounting choices, and because it is not possible to examine all income statement

variables one by one, the researcher decided to use accruals as an additional measure for earnings management. Accruals are measured as the difference between net income and operating cash flows. Thus they include depreciation, amortization, revaluations, impairments etc. and capture earnings management in a comprehensive manner.

The second measure of earnings management was discretionary accruals. Following Leventis and Dimitropoulos (2012) who used the Jones's (1991) model (modified for banking institutions by Yasuda et al. 2004), the discretionary portion of bank's total accruals was estimated from the following regression:

Regression 3

$$ACCR_{it} = \beta_1(1/TA_{it-1}) + \beta_2(\Delta OI_{it}/TA_{it-1}) + \beta_3(BRE_{it}/TA_{it-1}) + \varepsilon_{it}$$

where:

i= bank holding company identifier;

t = year (2002 to 2011);

ACCR = the total accruals estimated as the difference between net income and operating cash flows;

TA = total assets;

ΔOI = the change in bank's operating income between t-1 to t;

BRE = the bank's premises and equipment;

ε = error term.

The discretionary component of total accruals (DACCR) was the error term from regression 3. Higher levels of discretionary accruals will increase net profit and vice versa.

Nondiscretionary accruals (NDACCR) were then measured as:

$$\text{NDACCR}_{it} = \text{ACCR}_{it} - \text{DACCR}_{it} \quad (6)$$

After having derived the two measures of earnings management (EM and DACCR), two broad sets of regressions were estimated. Regression 4 treats earnings management (EM) as the dependent variable. The explanatory variables are: cash bonus, board ownership, board independence, CEO duality, whether the CEO sits in the nominating committee, board meetings, capital adequacy ratio, market to book value, the natural logarithm of assets and leverage.

Regression 4

$$\text{EM}_{it} = \beta_1 \text{NDEM}_{it} + \beta_2 \text{BONUS}_{it} + \beta_3 \text{DOWN}_{it} + \beta_4 \text{Bl}_{it} + \beta_5 \text{DCEO}_{it} + \beta_6 \text{CEONOM}_{it} + \beta_7 \text{MEET}_{it} + \beta_8 \text{CAP}_{it} + \beta_9 \text{MKBK}_{it} + \beta_{10} \text{LnAsset}_{it} + \beta_{11} \text{LEV}_{it} + \varepsilon_{it}$$

where:

i = bank holding company identifier;

t = year (2002 to 2011);

EM = the difference between discretionary real securities gains and losses and discretionary loan loss provisions and as a percent of total assets;

NDEM = the difference between non discretionary real securities gains and losses and of non discretionary loan loss provisions as a percent of total assets;

BONUS = 1 if executive compensation includes a cash bonus and 0 otherwise;

DOWN = the percentage of shares owned by the board of directors (less the shares owned by the CEO if the CEO is sitting on the board);

BI = $(1 / \text{board size}) * [\text{INDI} / \text{EXDI} + \text{NONEXDI}]$ (following Brick et al. 2006 who measure board independence by combining board composition and board size);

EXDI = the percentage of directors who are executives;

NONEXDI = the percentage of directors who are non executives;

INDI = the percentage of directors who are independent;

Board size = the number of directors on the board;

DCEO = 1 if the CEO is also the board chair and 0 otherwise;

CEONOM = 1 if the CEO is a member of the nominating committee and 0 otherwise;

MEET = number of board meetings;

CAP = the capital adequacy ratio;

MKBK = total year-end market value of equity of the bank divided by the total year-end book value of equity;

LnAsset = the natural logarithm of year-end total assets;

LEV = the ratio of total debt to total equity.

Regression 5 treats discretionary accruals (DACCR) as the dependent variable. The explanatory variables are: cash bonus, board ownership, board independence, CEO duality, whether the CEO sits in the nominating committee, board meetings,

capital adequacy ratio, market to book value, the natural logarithm of assets and leverage.

Regression 5

$$\begin{aligned} \text{DACRR}_{it} = & \beta_1 \text{NDACCR}_{it} + \beta_2 \text{BONUS}_{it} + \beta_3 \text{DOWN}_{it} + \beta_4 \text{BI}_{it} + \beta_5 \text{DCEO}_{it} + \\ & \beta_6 \text{CEONOM}_{it} + \beta_7 \text{MEET}_{it} + \beta_8 \text{CAP}_{it} + \beta_9 \text{MKBK}_{it} + \beta_{10} \ln \text{Asset}_{it} + \\ & + \beta_{11} \text{LEV}_{it} + \varepsilon_{it} \end{aligned}$$

where:

i = bank holding company identifier;

t = year (2002 to 2011);

DACCR = discretionary accruals as a percent of total assets;

NDACCR = non discretionary accruals as a percent of total assets;

BONUS = 1 if executive compensation includes a cash bonus and 0 otherwise;

DOWN = the percentage of shares owned by the board of directors (less the shares owned by the CEO if the CEO is sitting on the board);

BI = (1/ board size) * [INDI / EXDI + NONEXDI] (following Brick et al. 2006 who measure board independence by combining board composition and board size);

EXDI = the percentage of directors who are executives;

NONEXDI = the percentage of directors who are non executives;

INDI = the percentage of directors who are independent;

Board size = the number of directors on the board;

DCEO = 1 if the CEO is also the board chair and 0 otherwise;

CEONOM = 1 if the CEO is a member of the nominating committee and 0 otherwise;

MEET = number of board meetings;

CAP = the ratio of actual regulatory capital to the minimum required ratio;

MKBK = total year-end market value of equity of the bank divided by the total year-end book value of equity;

LnAsset = the natural logarithm of year-end total assets;

LEV = the ratio of total debt to total equity.

7.5 Empirical Results

Table 22 on the next page presents the results for Regression 1, which was estimated in order to calculate the discretionary loan loss provisions (DLLP's). The discretionary component is an appropriate estimate of banks' earnings management behaviour. The error term from regression 1 reflects DLLP's.

The model is significant at the 1% level i.e. 99% of the times the model does not produce results by chance. The explanatory power is good, considering that real life data is used ($R^2 = 0.256503$) i.e. 25,65% of the variation in the dependent variable is explained by the independent variables. The Durbin Watson is 1,4426, and this observed statistic falls between the lower and the upper bound critical values of the Durbin Watson table. When this occurs, one can err on the side of conservatism and accept that there is no autocorrelation. No autocorrelation between residuals implies that significant variables have not been omitted from the model. The Levin, Lin and Chu unit root test is -2.88055. A

negative number implies that there are no unit roots. Non- existence of unit roots suggests that the model produces valid estimates.

Table 22: Regression 1; Times Series and Cross Section Estimates

Regression 1: $LOSS = \alpha_{it} + \beta_1 LNASSET_{it} + \beta_2 NPL_{it} + \beta_3 LLA_{it} + \beta_4 LOANM_{it} + \beta_5 LOANTR_{it} + \beta_6 LOANT_{it} + \beta_7 LOANC_{it} + \beta_8 LOANP_{it} + \beta_9 LOANO_{it} + \varepsilon_{it}$

| Independent variables | Coefficients | t-values | Sign. |
|--|---------------------|-----------------|--------------|
| CONSTANT | -0.039965 | -1.297947 | .1965 |
| LNASSET | 0.002662 | 2.185706 | 0.0305** |
| NPL | 0.009063 | 2.132411 | 0.0347** |
| LLA | 0.052956 | 1.617482 | 0.1080 |
| LOANM | -0.084914 | -1.406465 | 0.1618 |
| LOANTR | 0.030858 | 1.007496 | 0.3154 |
| LOANT | 0.133575 | 2.268629 | 0.0248** |
| LOANC | -0.031842 | -1.409523 | 0.1609 |
| LOANP | -0.049776 | -3.103158 | 0.0023** |
| LOANO | 0.010714 | 0.541020 | 0.5894 |
| Model | | | Sign |
| R squared | 0.256503 | | |
| F | 3.996189 | | 0.000026*** |
| Durbin Watson | 1.442628 | | |
| Levin, Lin & Chu unit root test | -2.88055 | | |
| *** significant at 1% level **significant at 5% level * significant at 10% level | | | |

Table 23 on the next page presents the results for Regression 2 that was estimated in order to calculate the discretionary realised securities gains and losses (DRSGL's). The discretionary component is an appropriate estimate of banks' earnings management behaviour. The error term from regression 2 reflects (DRSGL's).

The model is significant at the 1% level i.e. 99% of the times the model does not produce results by chance. The explanatory power is good, considering that real life data is used (R squared = 0.065712) i.e. 6,57 % of the variation in the dependent variable is explained by the independent variables. The Durbin Watson is 2,2232570, and this observed statistic is above the upper bound critical value of the Durbin Watson table, suggesting no autocorrelation. No autocorrelation between residuals implies that significant variables have not been omitted from the model. The Levin, Lin and Chu unit root test is -1.82428. A negative number implies that there are no unit roots. Non- existence of unit roots suggests that the model produces valid estimates.

Table 23: Regression 2; Times Series and Cross Section Estimates

Regression 2: $RSGLS_{it} = \alpha_{it} + \beta_1 LnASSET_{it} + \beta_2 UNSGLS_{it} + \epsilon_{it}$

| Independent variables | Coefficients | t-values | Sign. |
|--|---------------------|-----------------|--------------|
| CONSTANT | -0.003076 | -2.845885 | 0.0051* |
| LNASSET | 0.000145 | 3.067390 | 0.0026** |
| UNSGLS | -0.017983 | -0.772221 | 0.4412 |
| | | | |
| Model | | | Sign |
| R squared | 0.065712 | | |
| F | 2.053739 | | 0.074540* |
| Durbin Watson | 2.232570 | | |
| Levin, Lin & Chu unit root test | -1.82428 | | |
| *** significant at 1% level **significant at 5% level * significant at 10% level | | | |

Table 24 on the next page presents the results for Regression 3, which was estimated in order to calculate the discretionary accruals (DACCR). The discretionary component is an appropriate estimate of earnings management behaviour. The error term from regression 3 reflects (DACCR).

The model is significant at the 1% level i.e. 99% of the times the model does not produce results by chance. The explanatory power is good, considering that real life data is used (R squared = 0.102369) i.e. 10,23% of the variation in the dependent variable is explained by the independent variables. The Durbin Watson is 2.226912, and this observed statistic is above the upper bound critical value of the Durbin Watson table, suggesting no autocorrelation. No autocorrelation between residuals implies that significant variables have not been omitted from the model. The Levin, Lin and Chu unit root test is -4.14270. A negative number implies that there are no unit roots. Non- existence of unit roots suggests that the model produces valid estimates.

Table 24: Regression 3; Times Series and Cross Section Estimates

Regression 3: $ACCR_{it} = \alpha_{it} + \beta_1(1/TA_{it-1}) + \beta_2(\Delta OI_{it}/TA_{it-1}) + \beta_3(BRE_{it}/TA_{it-1}) + \epsilon_{it}$

| Independent variables | Coefficients | t-values | Sign. |
|--|---------------------|-----------------|--------------|
| CONSTANT | -0.0115327 | -0.801242 | 0.4243 |
| $\Delta OI / TA$ | -3.525691 | -4.075612 | 0.0001*** |
| BRE / TA | -0.035080 | -0.025762 | 0.9795 |
| | | | |
| Model | | | Sign |
| R squared | 0.102369 | | |
| F | 3.330056 | | 0.007055*** |
| Durbin Watson | 2.226912 | | |
| Levin, Lin & Chu unit root test | -4.14270 | | |
| *** significant at 1% level **significant at 5% level * significant at 10% level | | | |

The first measure for earnings management (EM) was then measured as the difference between discretionary real securities gains and losses (DRSGL's) and discretionary loan loss provisions (DLLP's). Lower levels of loan loss provisions and higher levels of realized securities gains correspond to higher levels of earnings management, which, ceteris paribus, increase income.

After having derived the first measure of earnings management (EM) regression 4 was estimated. Regression 4 treats earnings management (EM) as the dependent variable, which is the difference between DRGL's and DLLP's. The independent variables are: cash bonus, board ownership, board independence, CEO duality, whether the CEO sits in the nominating committee, board meetings, capital adequacy

ratio, market to book value, the natural logarithm of assets and leverage. The findings for Regression 4 are shown in table 25 on the next page.

The model is significant at the 1% level i.e. 99% of the times the model does not produce results by chance. The explanatory power is good, considering that real life data is used (R squared = 0.463836) i.e. 46,38% of the variation in the dependent variable is explained by the independent variables. The Durbin Watson is 2.0401198 and this observed statistic is above the upper bound critical value of the Durbin Watson table, suggesting no autocorrelation. No autocorrelation between residuals implies that significant variables have not been omitted from the model. The Levin, Lin and Chu unit root test is -4.51807. A negative number implies that there are no unit roots. Non- existence of unit roots suggests that the model produces valid estimates.

Table 25: Regression 4; Times Series and Cross Section Estimates

Regression 4: $EM_{it} = \alpha_{it} + \beta_1 NDEM_{it} + \beta_2 BONUS_{it} + \beta_3 DOWN_{it} + \beta_4 BI_{it} + \beta_5 DCEO_{it} + \beta_6 CEONOM_{it} + \beta_7 MEET_{it} + \beta_8 CAP_{it} + \beta_9 MKBK_{it} + \beta_{10} LnAsset_{it} + \beta_{11} LEV_{it} + \epsilon_{it}$

| Independent variables | Coefficients | t – values | Sign. |
|---------------------------------|---------------------|-------------------|--------------|
| CONSTANT | 0.003427 | (0.592376) | 0.5546 |
| NDEM | -0.276405 | (-2.327619) | 0.0214** |
| BONUS | -0.000128 | (-0.182620) | 0.8554 |
| DOWN | 0.004383 | (2.693526) | 0.0080** |
| BI | 0.005518 | (3.166707) | 0.0019** |
| DCEO | -0.001164 | (-0.844782) | 0.3997 |
| CEONOM | -0.001179 | (-1.222282) | 0.2238 |
| MEET | -6.84EEE-05 | (-1.652743) | 0.1007 |
| CAP | -0.041521 | (-2.237942) | 0.0269** |
| MKBK | 0.001999 | (7.924647) | 0.0000*** |
| LNASSET | 0.000340 | (1.381734) | 0.1694 |
| LEV | -0.000619 | (-7.181254) | 0.0000*** |
| | | | |
| Model | | | Sign |
| R squared | 0.463836 | | |
| F | 8.218466 | | 0.00000*** |
| Durbin Watson | 2.041198 | | |
| Levin, Lin & Chu unit root test | -4.51807 | | |
| *** significant at 1% level | | | |
| **significant at 5% level | | | |
| * significant at 10% level | | | |

The second measure of earnings management (DACCR) was estimated with Regression 3. Higher levels of DACCR increase net profit and vice versa. Regression 5 was then estimated. Regression 5 treats DACCR as the dependent variable. The independent variables are: cash bonus, board ownership, board independence, CEO duality, whether the CEO sits in the nominating committee, board

meetings, capital adequacy ratio, market to book value, the natural logarithm of assets and leverage. The findings for Regression 5 are shown in table 26 on the next page.

The model is significant at the 1% level i.e. 99% of the times the model does not produce results by chance. The explanatory power is good, considering that real life data is used (R squared = 0.340533) i.e. 34,05% of the variation in the dependent variable is explained by the independent variables. The Durbin Watson is 2.706528 and this observed statistic is above the upper bound critical value of the Durbin Watson table, suggesting no autocorrelation. No autocorrelation between residuals implies that significant variables have not been omitted from the model. The Levin, Lin and Chu unit root test is -5.69464. A negative number implies that there are no unit roots. Non- existence of unit roots suggests that the model produces valid estimates.

Table 26: Regression 5; Times Series and Cross Section Estimates

Regression 5: $DACCR_{it} = \alpha_{it} + \beta_1 NDACRR_{it} + \beta_2 BONUS_{it} + \beta_3 DOWN_{it} + \beta_4 BI_{it} + \beta_5 DCEO_{it} + \beta_6 CEONOM_{it} + \beta_7 MEET_{it} + \beta_8 CAP_{it} + \beta_9 MKBK_{it} + \beta_{10} LnAsset_{it} + \beta_{11} LEV_{it} + \epsilon_{it}$

| Independent variables | Coefficients | t-values | Sign. |
|---------------------------------|---------------------|-----------------|--------------|
| CONSTANT | 0.399367 | 3.593676 | 0.0005*** |
| NDACCR | 0.094191 | 0.421099 | 0.6744 |
| BONUS | -0.062767 | -4.753572 | 0.0000*** |
| DOWN | -0.125569 | -4.102568 | 0.0001*** |
| BI | -0.164886 | -5.224919 | 0.0000*** |
| DCEO | 0.072803 | 3.060780 | 0.0027*** |
| CEONOM | -0.027888 | -1.5300208 | 0.1283 |
| MEET | 0.000606 | 0.758420 | 0.4495 |
| CAP | -1.588929 | -4.574840 | 0.0000*** |
| MKBK | 0.012759 | 2.608686 | 0.0101*** |
| LNASSET | -0.003762 | -0.821425 | 0.4129 |
| LEV | -0.005449 | -3.392227 | 0.00009*** |
| | | | |
| Model | | | Sign |
| R squared | 0.340533 | | |
| F | 6.421939 | | 0.00000*** |
| Durbin Watson | 2.706528 | | |
| Levin, Lin & Chu unit root test | -5.69464 | | |
| *** significant at 1% level | | | |
| **significant at 5% level | | | |
| * significant at 10% level | | | |

7.6 Interpretation of Findings

Before the interpretation of the findings is made, it should be mentioned that, in 2012 and 2013, the Central Bank of Cyprus requested three Independent Committees to make investigations of certain bank matters, including the banks examined in this study⁵³. These Committees had access to bank documents, e-mails and conducted interviews with board members and people from the Central Bank. Therefore, the Committees had inside information, which was not available to the researcher. For this reason, where the results from these independent investigations are in line with the findings of this study, they are used as a way to prove the robustness of the conclusions. The interpretations of the regression results are presented next.

7.6.1 Bonus

The existence of a cash bonus is insignificant and negatively related to EM. Hypothesis 1a is therefore not supported.

The relationship of the cash bonus and DACCR is significant at the 1% level and negative. A negative relationship indicates that when there is a cash bonus, discretionary accruals decrease. But when discretionary accruals decrease, the quality of earnings is improved. This finding fails to prove hypothesis 1b, that the existence of a cash bonus creates an incentive for earnings management through the use of accruals.

⁵³ PIMCO: "Independent Due Diligence Report of the Banking System in Cyprus", February 2013; Alvarez and Marsal: "Statement of Protocol to Report of Investigations Into Specific Aspects of the Cyprus Banking Crisis", March 26' 2013; Independent Commission on the Future of the Cyprus Banking Sector: "Interim Report", June 2012.

The above findings were not as expected. A possible explanation for this result is that banks must have been using some other income statement variable to manage profits for bonus purposes. In order to clarify this matter, one of the interviewees was conducted again. This person explained that, for bonus purposes, net profit is relevant but, what determines whether a bonus will be paid or not is also the number of non performing loans and an efficiency ratio measured as costs / revenues. A low ratio (i.e. low expenses and high revenues) indicates more efficiency. In addition, the numerator of the ratio includes only real expenses such as salaries, rent, advertising etc. Any provisions made for impairments, loan loss provisions, amortisation, depreciation etc. are excluded.

The fact that banks have managed their revenues and their non performing loans for bonus purposes is confirmed by the findings of the Independent Committees. It has been found that banks have been granting loans with extreme ease, by relying heavily on collaterals and assets of guarantors rather than on the borrower's ability to pay. Thus the significant increase in credit led to an increase in interest revenue. Subsequent to the granting of the loans, given the optimistic collateral values, many past due loans were not classified as non-performing. As a consequence, high levels of unpaid interest were recognized on bank income statements, enabling to report higher net interest margins. Finally, banks have been very accommodative with borrowers who faced significant liquidity issues. Loan restructurings have been made frequently. By restructuring problematic loans, banks were able to keep them out of the non performing portfolio and continued to book interest income on the income statement.

In view of this information, the results can be explained as follows: for bonus purposes, banks have an incentive to manage their efficiency ratios. This can be achieved by increasing revenues and reducing real costs. Hence, discretion over accruals to increase profit is unnecessary, since these items are not considered in bonus decisions. However, discretionary accruals decrease, and this does not happen because executives or managers were ethical. Discretion over accruals is not unlimited; this flexibility was therefore saved so that it could be used to manage earnings upwards when the bottom line net profit made a difference i.e. increase the capital adequacy ratio. It can therefore be inferred that, if discretionary accruals were considered in cash bonus decisions, earnings management through DACCR would most likely be observed, thus confirming hypothesis 1b. This empirical result is consistent with findings in the literature that, managers engage in earnings management with the use of DACCR in order to secure a cash bonus [Healy (1985); Gaver, Gaver and Austin (1993); Holthausen, Larcker and Sloan (1995); Guidry, Leone and Rock (1999); Gao and Shrieves (2002); Shuto (2007)].

7.6.2 Inside Ownership

Inside ownership is significant at the 1% level and positively related to EM. This finding indicates that as inside ownership increases, directors have an incentive to artificially boost profits by overstating securities gains and losses and understating loan loss provisions. Hypothesis 2c is rejected and hypothesis 2a is supported, that is, directors engage in earnings management to their own wealth.

Inside ownership is significant at the 1% level and negatively related to DACCR. This result implies that when inside ownership goes up, discretionary accruals go down, and thus earnings quality is improved. With this finding, hypothesis 2b is rejected and hypothesis 2d is supported, that is, the interests of directors are aligned with those of shareholders and earnings management through the use of discretionary accruals is mitigated.

The two findings are obviously contradictory. However, the coefficient of inside ownership reveals that the impact on EM is significantly lower than the impact on DACCR. When inside ownership increases, EM increases by 0.004 whereas discretionary accruals decrease by 0.1255. Therefore, when directors own shares, they think like shareholders and have an incentive to monitor discretionary accruals more closely, possibly due to their large impact on profitability. Hence inside ownership creates a disincentive for earnings management. This empirical result is consistent with findings in the literature that, inside ownership is a way to align the interest of managers with those of the shareholders [Dempsey et al. (1993); Warfield et al. (1995); Weber (2006); Niu (2006); Yang, Lai and Tan (2008); Banderlippe II (2009); Alvez (2012); Lee and Hwang (2012); Fauzi and Locke (2012)].

The above finding is also in line with the suggestions made by the Independent Committees. These Committees have suggested that incentive schemes should include more stock options, so as to reward executives for achieving long-term targets and discourage risky behaviour.

7.6.3 Capital Adequacy Ratio

The capital adequacy ratio is significant at the 5% level and negatively related to EM. This finding supports hypothesis 3a, that is, when capital adequacy is close to its regulatory minimum, banks overstate real securities gains and losses and understate loan loss provision in order to boost the capital base. This finding is consistent with evidence from the literature [Moyer (1990); Scholes, Wilson and Wolfson (1990); Warfield and Linsmeier (1992); Bernard, Merton and Palepu (1995); Kim and Kross (1998); Ahmed, Takeda, and Shawn (1998); Beck and Narayanamoorthy (2013)]

The capital adequacy ratio is significant at the 1% level and negatively related to DACCR. The coefficient of the capital adequacy ratio reveals that the impact on DACCR is much larger than on EM. The coefficient is -.04 for EM and -1.58 for DACCR. Thus, banks seem to use discretionary accruals more so as to increase profits and hence artificially boost their capital base. This finding is consistent with evidence from the literature [Haw, Jung and Lilien (1991); Kato, Kunimura and Yoshida (2001); Schrand and Wong (2003); Ramesh and Revsine (2011)].

7.6.4 Board Independence

Board independence is significant at the 1% and positively related to EM. This finding indicates that as board independence increases, profits are managed upwards by overstating securities gains and losses and understating loan loss provisions. Hypothesis 4a is not supported, which states that, more independent directors should help reduce earnings management. A possible explanation for this result is that

independent directors have not been able to challenge executives on loan loss provisions and securities gains and losses due to the lack of adequate information. This finding is then in line with the findings of the Independent Committees. In the interviews conducted by the Committee members, some independent directors said that they were deliberately left in the dark about certain serious managerial decisions.

Board independence is significant at the 1% level and negatively related to DACCR. This finding implies that as board independence increases, discretionary accruals go down, suggesting better quality of earnings. With this finding, hypothesis 4b is supported, that is independent directors challenge insiders and they are better monitors.

The results on EM and DACRR are contradictory. The coefficient of board independence however reveals that the impact on EM is significantly lower than the impact on DACCR. When board independence increases, EM increases by 0.005 whereas discretionary accruals decrease by 0.1648. Therefore, the existence of more independent directors on bank boards helps to reduce earnings management. This finding is consistent with the results of other empirical studies [Peasnell, Pope and Young (2000, 2005); Anderson, Mansi and Reeb (2004); Vafeas (2005); Niu (2006); Ebrahim (2007); Johnstone, Li and Rupley (2011)].

The above finding is also in line with the proposal made by the Independent Committees. The Committees have suggested that more independent directors should

be included on bank boards. Since the executives always have the advantage over the non-executives, because of greater information and influence, it should be outweighed by a majority of independent directors.

7.6.5 Splitting the Role of the Chairman and the CEO

CEO duality is insignificant and negatively related to EM. This finding fails to support hypothesis 5a.

CEO duality is significant at the 1% level and positively related to discretionary accruals. This finding suggests that when the CEO is the chairman of the board, there is dominance of the chief executive and earnings are managed by using total discretionary accruals, possibly because of the largest impact. Hypothesis 5b is therefore supported. This result is consistent with findings in the literature [Klein (2000); Johnstone, Li and Rupley (2011)].

The result is also in line with the findings of the Independent Committees. From interviews held with board members and some documentation reviewed, the Committees found that the chief executive's actions were not questioned enough by other board members. This allowed powerful executives to dominate and to pursue risky strategies that were strongly influenced by personal ambition.

7.6.6 CEO Sits in the Nomination Committee

When the CEO is sitting in the nomination committee is insignificant and negatively related to both EM and DACCR. The finding fails to support the hypotheses 6a and 6b, that is, the independence of the board of directors may be compromised if the chief executive is involved in the selection of nominees for board positions. Klein (2000), who has examined the relationship between earnings management and whether the CEO sits in the nominating committee, has also failed to find a significant relationship between the two variables.

7.6.7 Board Meetings

The number of board meetings is insignificant and negatively related to EM. Board meetings are also insignificant and positively related to DACCR. Hypotheses 7a and 7b are not supported, that is, board meetings increase board efficiency. The result contradicts findings in the literature which provide evidence that board meetings help to control the incidence of earnings management [Xie et al. (2003); Johnstone, Li and Rupley (2011); Masulis, Wang and Xie (2012)].

7.6.8 Bank Size

The natural logarithm of total assets is insignificant and positively related to EM and insignificant and negatively related to DACCR. This result fails to support hypotheses 8a and 8b, that is, larger banks are less likely to artificially inflate income because of increased monitoring by regulators. The current financial crisis confirms that bank size has been irrelevant since regulators failed to scrutinize more closely the

strategies of the three large, systemic banks included in the sample i.e. Bank of Cyprus, Hellenic Bank and Laiki. The result contradicts findings in the literature which provide evidence that large companies engage in income decreasing earnings management to avoid regulatory attention and intervention [Watts and Zimmerman (1978); Hagerman and Zmijewski (1979); Liberty and Zimmerman (1986); Jones (1991); Cahan (1992); Bowen DuCharme and Schores (1995); Wong and Young (2012); Bova (2013)].

7.6.9 Growth

The market to book value is significant at the 1% level and positively related to EM and DACCR. The coefficient of the market to book value reveals that the impact on DACCR is much larger than on EM. When growth goes up, EM increases by 0.001 whereas the DACCR increase by 0.012. This finding fails to support hypotheses 9a and 9b, that is, growth firms attract more attention by regulators and therefore earnings management should be less pronounced.

The fact that growth is positively related to EM and DACCR is confirmed by the current financial crisis. It proves that the Central Bank has failed to supervise banks and ensure that they operated prudently. Thus banks were able to operate without serious regulatory challenge until it was too late. It can therefore be inferred that, if banks were subject to more scrutiny from competent supervisory authorities, they would most likely be more conservative, thus confirming hypothesis 9. This result is consistent with findings in the literature which provide evidence that large companies are more conservative in order to avoid regulatory attention and intervention [Watts and

Zimmerman (1978); Hagerman and Zmijewski (1979); Liberty and Zimmerman (1986); Jones (1991); Cahan (1992); Bowen DuCharme and Schores (1995); Wong and Young (2012); Bova (2013)].

This result also agrees with the findings of the Independent Committees. From interviews held with people from the Central Bank, the Committees found that bank supervision was lax. The regulatory authorities failed to question the bank strategies when the Bank of Cyprus, Hellenic Bank and Laiki started to expand overseas into potentially difficult markets such as Greece and Eastern Europe. The Central Bank also approved a high number of branches in Greece despite the country's crisis. There were also no effective attempts by the supervisory authorities to restrain the increasing number of bank loans both domestically and in Greece. Little was done to discourage lending practices based on collateral rather than ability to pay, which has led to poor credit origination and loan recovery practices. The investments in Greek government bonds by Bank of Cyprus and Laiki, despite Greece's rapidly worsening economic climate was questioned by the supervisors but not followed through. The oversight of the banks' corporate governance structures and practices was also deficient. The supervisors failed to address, serious weaknesses in the banks' governance structures, particularly in the area of risk management, internal controls, and the role of the executives. Moreover, the monitoring by the Central Bank of the banks' risk exposures was inadequate and was not exercised in a frequent and timely manner. The trilateral meetings between the Central Bank and the external auditors were also allowed to lapse for a crucial period while the crisis was building up. And finally, there was no

adequate co-ordination between the Bank and the Ministry of Finance, the two main authorities responsible for financial stability.

7.6.10 Leverage

The leverage is significant at the 1% level and negatively related to both EM and DACCR. This result suggests that as leverage increases, earnings management practices are less pronounced. The coefficient of the leverage reveals that the impact on DACCR (-0.005) is much larger than on EM (-0.0006). This finding fails to support hypotheses 10a and 10b, that is, banks with more leverage are more likely to manage profits by overstating securities gains and losses, by understating loan loss provisions or by overstating discretionary accruals. The result contradicts findings in the literature which provide evidence that, managers engage in earnings management to avoid violation of debt covenants which are tied to accounting profits [Haw, Jung and Lilien (1991); Sweeney (1994); DeFond and Jiambalvo (1994); DeAngelo, DeAngelo and Skinner (1994); Dechow, Sloan, and Sweeney (1996); Jaggi and Lee (2002)].

A possible explanation for this result is that, the banking system in Cyprus is primarily deposit funded. Of the total debt reported on banks' balance sheets, over 60% of the liabilities are composed of deposits. Deposit schemes do not include covenants that have to be met like other debt contracts. The only consideration for banks is to offer high interest rates, given the intensity of competition for deposits. Once the deposit has been secured, there is no monitoring of accounting numbers on behalf of depositors. Similar to the bonus, discretion to manage earnings is therefore saved when the bottom

line net profit does make a difference i.e. increase the capital adequacy ratio. However, given that managers have been opportunistic it can be inferred that, if deposit schemes included debt covenants tied to accounting profits, earnings management would most likely be observed, thus confirming hypothesis 10.

7.7 Summary of Findings

This research is an empirical study of the four commercial banks listed in the Cyprus Stock Exchange, for which there is available information. According the Central Bank statistics, the total deposits of the sample banks constitute, on average, 54% of the total bank deposits, whereas the total loans comprise, on average, 49% of the total bank loans. Hence, if a single asset i.e. bank loans constitutes almost half the total bank loans, it can be inferred that the sample banks' total assets represent more than half the total bank assets. Therefore, the practices of the four banks can be generalised to the whole banking sector.

The banks examined became listed on March 29' 1996, when the Cyprus Stock Exchange began its operations. The corporate governance code was issued in September of 2001 and became a requirement as of 2002. Consequently, since this study examines the effect of corporate governance on earnings management, observations from 1996 – 2001 were excluded due to the unavailable governance information. Bank of Cyprus, Hellenic Bank and Laiki Bank were able to comply with the code immediately. Universal Savings Bank was able to comply as of 2004. Hence the period examined includes the following bank years: 2002 – 2011 for the three large banks and 2004 – 2011 for the fourth one. This

available information produced a total number of 38 bank-year observations, which constitute the total population.

The first measure for earnings management (EM) was calculated as the difference between discretionary real securities gains and losses (DRSGL's) and discretionary loan loss provisions (DLLP's). Lower levels of loan loss provisions and higher levels of realized securities gains correspond to higher levels of earnings management, which, *ceteris paribus*, increase income. Regression 1 was estimated in order to calculate the discretionary loan loss provisions (DLLP's) and Regression 2 was estimated in order to calculate the discretionary realised securities gains and losses (DRSGL's).

The second measure for earnings management was the discretionary accruals (DACCR). Regression 3 was estimated in order to calculate the discretionary accruals (DACCR). Higher levels of DACCR increase net profit and vice versa.

After having derived the two measures of earnings management (EM) two sets of regressions were estimated. Regression 4 treats earnings management (EM) as the dependent variable, which is the difference between DRGL's and DLLP's. Regression 5 treats DACCR as the dependent variable. Both regressions have the same independent variables which are: cash bonus, board ownership, board independence, CEO duality, whether the CEO sits in the nominating committee, board meetings, capital adequacy ratio, market to book value, the natural logarithm of assets and leverage.

The following table presents in summary of the independent variables that are statistically significant and their relationship and impact on earnings management (EM) and discretionary accruals (DACCR).

Table 27: Statistically significant variables and their impact on EM and DACCR

| Independent variables | EM (Dependent Variable) | DACCR (Dependent Variable) |
|------------------------------|------------------------------------|---------------------------------------|
| Bonus | | -0.062767 |
| Inside ownership | 0.004383 | -0.125569 |
| Board independence | 0.005518 | -0.164886 |
| CEO is also board chairman | | 0.072803 |
| Capital adequacy ratio | -0.0415 | -1.588929 |
| Growth | 0.001999 | 0.012759 |
| Leverage | -0.000619 | -0.05449 |

A glance at table 28 above reveals that, the impact of the independent variables is much larger on DACCR than on EM. This finding contrasts findings in the literature which provide evidence that, banks are more likely to use a single industry accrual, such as loan loss provisions, due to the material size and the substantial judgement required. The results also contradict the prediction that bank managers will choose to time the sale of their investments since no one can really challenge them on whether they have made the right decision or not. The evidence proves that, in Cyprus banks, DACCR have been used to manage earnings due to their potentially larger impact. When DACCR increase, the quality of earnings deteriorates, suggesting that accounting profits have been managed.

More specifically, the existence of a cash bonus does not create incentives to use EM in order to secure compensation (Hypothesis 1a). The relationship of the cash bonus and DACCR is significant and negative suggesting that when there is a cash bonus, discretionary accruals decrease and hence the quality of earnings is improved. This finding fails to prove hypothesis 1b. This result is observed simply because DACCR are not considered in bonus decisions. Hence discretion is saved so that it can be used to manage earnings upwards when the bottom line net profit does make a difference.

When directors hold bank shares, they have an incentive to artificially boost profits by engaging in EM in order to maximize their own wealth (Hypothesis 2a). Inside ownership is negatively related to DACCR, suggesting that when inside ownership goes up, discretionary accruals go down, and thus earnings quality is improved (hypothesis 2d). The coefficient of inside ownership reveals that the impact on EM is significantly lower than the impact on DACCR accruals. Therefore, when directors own shares, they think like shareholders and have an incentive to monitor discretionary accruals more closely, possibly due to their large impact on profitability.

The evidence supports that banks use both EM and DACRR in order to boost the capital base (hypotheses 3a and 3b). The coefficient of the capital adequacy ratio reveals that the impact on DACCR is much larger than on EM. Thus, banks seem to use discretionary accruals more so as to increase profits, potentially because of the larger impact.

More independent directors do not help to reduce EM (hypothesis 4a). In contrast, board independence is related to lower level of DACRR and hence better quality of earnings (hypothesis 4b). The coefficient of board independence reveals that the impact on EM is significantly lower than the impact on DACCR. Therefore, the existence of more independent directors on bank boards helps to reduce earnings management.

There is no evidence that when the CEO is also the chairman of the board EM is more pronounced (hypothesis 5a). However, the results suggest that CEO duality leads to higher level of DACRR. This finding suggests that when the CEO is the chairman of the board, there is dominance of the chief executive and earnings are managed by using total discretionary accruals, possibly because of the largest impact (hypothesis 5b).

The findings fail to support that board independence may be compromised if the chief executive is involved in the selection of nominees for board positions (hypotheses 6a and 6b).

There is no evidence that board activity, measure by the number of meetings leads to lower levels of EM or DACRR (hypotheses 7a and 7b).

Similarly, there is no evidence that larger banks are less likely to artificially inflate income because of increased monitoring by regulators (hypotheses 8a and 8b).

Growth banks artificially boost their profits by using both EM and DACCR, but the impact on DACCR is much larger. These results fail to support the argument that growth firms attract more attention by regulators and therefore earnings management should be less pronounced (hypotheses 9a and 9b).

Leverage is significant and negatively related to both EM and DACCR. This result suggests that as leverage increase, earnings management practices are less pronounced. This finding fails to support the argument that banks with more leverage are more likely to manage profits (hypothesis 10a and 10b).

Chapter 8: Conclusion

This empirical study is an examination of incentives, opportunities and disincentives for earnings management. The research was conducted for the four commercial banks that are listed in the Cyprus Stock Exchange.

After having considered the literature review, the evaluation of the laws that affect banks' financial reporting and the results from interviews it was determined that, over the years 2002 to 2011, the most important incentives for earnings management included variable executive compensation and capital adequacy. Board of directors was considered to be the most significant governance variable that could control earnings management. Two accounting measures (i.e. opportunities) were used to detect earnings management. The first measure was the difference between discretionary real securities gains and losses and discretionary loan loss provisions (EM) and the second measure was discretionary accruals (DACCR).

The following hypotheses were then formulated:

Hypothesis 1: Variable compensation in the form of a cash bonus will lead to higher levels of earnings management.

Hypothesis 2: Higher level of inside board ownership will lead to higher levels of earnings management (the entrenchment effect); alternatively higher levels of inside

board ownership will lead to lower levels of earnings management (the alignment effect).

Hypothesis 3: Lower levels of capital adequacy will lead to higher levels of earnings management.

Hypothesis 4: Board independence leads to lower levels of earnings management.

Hypothesis 5: When the roles of the chairman and the CEO are not split, this will lead to higher levels of earnings management.

Hypothesis 6: When the CEO sits in the nomination committee, this will lead to higher levels of earnings management.

Hypothesis 7: Board activity will lead to lower levels of earnings management.

Hypothesis 8: Larger banks are less likely to engage in earnings management (the natural logarithm of total assets was used as a proxy for bank size).

Hypothesis 9: Growing banks are less likely to engage in earnings management (the market to book value of equity was used as a proxy for growth prospects).

Hypothesis 10: More leveraged banks are more likely to engage in earnings management.

As discussed in “Chapter 7: Empirical Analysis; Part 2”, the impact of the independent variables is much larger on DACCR than on EM. This finding contrasts the argument that banks are more likely to use a single industry accrual, such as loan loss provisions, due to the material size and the substantial judgement required. The results also contradict the prediction that managers will choose to time the sale of their investments since no one can really challenge them on whether they have made the right decision or not. The evidence proves that, in Cyprus banks, DACCR have been used to manage earnings due to their potentially larger impact. When DACCR increase, the quality of earnings deteriorates, suggesting that accounting profits have been managed.

The empirical results provide evidence that, when a cash bonus exists, DACCR decrease suggesting that the quality of earnings is improved. This finding is observed not because managers were ethical but simply because DACCR were not considered in cash bonus decisions. A cash bonus depends on the efficiency ratio, which is measured as real costs / revenues. Therefore, since the flexibility to manage accruals is not unlimited, discretion was saved to manage earnings upwards for when the bottom line net profit made a difference. Overall, the results can be interpreted as follows. DACCR were saved for bonus purposes, so that they could be used to manage the regulatory capital. Assuming that regulators perceived banks as being adequately capitalised, they

paid less attention. Banks were then able to grow and to grant loans very generously. Recognition of more interest revenue helped to decrease the efficiency ratio and hence executives were able to earn their cash bonus. This is consistent with the argument that managers will manage those income statement items that will secure their compensation. Given that executives have been opportunistic, it can be inferred that, if DACCR were considered in cash bonus decisions, earnings management through DACCR would most likely be observed, thus confirming hypothesis 1.

The empirical evidence on inside ownership is mixed. This variable is positively related to EM, suggesting that when executives own more shares they are more likely to income maximise so as to increase their personal wealth (the entrenchment effect). However, the coefficient of inside ownership and DACCR is larger than that of EM and it becomes negative, indicating that inside ownership leads to better quality of earnings. Therefore, when directors own shares, their interests are aligned with those of shareholders and they have an incentive to monitor managers more closely (hypothesis 2).

The results also show a negative relationship between the capital adequacy ratio and both EM and DACRR. Thus, when the regulatory ratio is low, as compared to its minimum required, banks manage earnings upwards in order to artificially boost their capital adequacy ratios and avoid regulatory intervention. This finding is consistent with the empirical evidence that, unlike non-financial firms, banks have incentives to income

maximize because they are subject to regulation, which includes accounting profits (hypothesis 3).

The empirical evidence on board independence is mixed. This variable is positively related to EM, suggesting that when the proportion of independent directors increases, EM is more pronounced. However, the coefficient of board independence and DACCR is larger than that of EM and becomes negative, indicating that board independence leads to better quality of earnings. Therefore, as board independence increases, independent directors challenge insiders more and they are better monitors (hypothesis 4).

The pronounced use of DACCR is evident by the fact that when the CEO is also the chairman of the board, there is a positive relationship between CEO duality and DACCR. This is consistent with the argument that when the CEO and chairman roles are not split, the CEO dominates the board (hypothesis 5).

The empirical findings fail to support hypotheses 6, 7 and 8. There is no evidence that when the CEO sits in the nomination committee, the board independence is compromised (hypothesis 6). Board activity is also not significant in controlling earnings management practices (hypothesis 7). Finally, the results do not suggest that bank size, used as a proxy for attracting regulatory attention, creates incentive to income minimize (hypothesis 8).

If regulators in Cyprus were fooled by capital adequacy management, according to the political cost hypothesis, they would be less likely to scrutinise banks closely. Lax supervision is confirmed by the fact that growth is statistically significant and positively related to both EM and DACCR, but again the relationship is stronger with accruals. Even though regulators should be watching growing banks more closely, they failed to do so and hence more earnings management is observed. The lack of supervisory scrutiny is evident by the fact that, the three largest banks (Bank of Cyprus, Hellenic Bank and Laiki) have expanded rapidly both on the island and abroad, without constrain from the Central Bank. This growth was followed by a generous granting of loans, which was based on collateral rather than on customer paying ability. For this reason, most of these loans are today non-performing. Regardless of the quality of the loans, banks continued to book interest revenue, thereby increasing profits as well. It can therefore be inferred that, if banks were subject to more scrutiny from competent supervisory authorities, they would most likely be more conservative, thus confirming hypothesis 9.

The empirical evidence on leverage is similar to that of the cash bonus. The results indicate that, as debt increases, the quality of earnings is improved. This occurs not because managers were ethical but because, in Cyprus, most of the banks' debt is in the form of deposits. Deposit schemes do not include covenants that have to be met like other debt contracts. Once the deposit has been secured, there is no monitoring on behalf of depositors. DACCR were therefore saved in order to manage earnings upwards when the bottom line net profit does make a difference. Overall, the results can be interpreted as follows. Discretion to manage earnings for debt purposes was saved,

so that it could be used to increase the capital adequacy ratio and avoid regulatory attention. Less scrutiny by regulatory authorities allowed the three largest banks in the sample to expand by granting more loans and thus recognising more interest revenue. Higher interest revenue helped to cover higher interest paid to attract and maintain depositors, given the competitiveness of such a small market like Cyprus. This evidence is consistent with the argument that managers will manage those income statement items when it most advantageous to them. Given that executives have been opportunistic, it can therefore, if deposit schemes included debt covenants tied to accounting profits, earnings management would most likely be observed, thus confirming hypothesis 10.

The above findings provide answers to the research questions that were outlined in Chapter 1. The research objectives were to examine:

1. Why does earnings management take place (i.e. the incentives)?
2. How does regulation provide opportunities for earnings management and
3. How corporate governance and regulation can help limit such practices

Answer to research question #1

The incentives for earnings management are to: increase the capital adequacy ratio; secure variable compensation in the form of cash bonus; and attract and maintain depositors.

Answer to research question #2

The opportunities for earnings management arise from the discretion that accounting standards provide to financial statement preparers. The findings suggest that discretionary accruals are mostly used to manage bank earnings. Discretionary accruals are measured as the difference between net income and operating cash flows. Thus they include loan loss provisions, gains and losses from sales of assets, impairment, depreciation, amortization, unrealized gains and losses from revaluation of investment properties etc. Hence, bank managers exercise discretion in a comprehensive manner.

Answer to research question #3

The corporate governance variables that limit earnings management include: board independence (i.e. the number of independent directors sitting on the board); CEO duality (i.e. when the roles of the chairman and the chief executive officer are split); inside ownership; and more attention and intervention by the Central Bank.

8.1 Originality

This study contributes to the literature, by providing evidence on earnings management for the banks in Cyprus. To the best of the researcher's knowledge, a similar study has not been conducted for the Cyprus banking sector. Given the current financial crisis, the government has requested independent committees to make investigations but the purpose was not to determine whether earnings management takes place. The findings of these investigations were based on interviews with board

members and inside bank documents. Therefore, this thesis is a different approach to detect incentives, opportunities and disincentives for earnings management.

Furthermore, this thesis contributes to the literature by providing evidence on both the incentives and disincentives for earnings management. Overall, the review of the earnings management literature has revealed that, most of the empirical studies examine *either* the relationship between incentives for earnings management and opportunities for such practices *or* the relationship between disincentives for earnings management and opportunities for such practices. This dissertation provides a bridge to this gap since it examines both incentives and disincentives for earnings management for banks.

In addition, most of the empirical studies on banks use loan loss provisions and securities gains and losses as a measure of earnings management. This dissertation uses an additional variable as a measure of earnings management, the discretionary accruals, which capture earnings management in a comprehensive manner.

8.2 Implications for Practitioners

The results of this empirical study could be of interest to the remuneration and audit committees, the auditors and the supervisory authorities.

More specifically, the results prove the extreme importance of effective compensation schemes. It is evident that where cash bonus schemes exist, they

provide executives with incentives to manage any income statement items that are necessary to secure their compensation. Replacing cash bonuses with stock based compensation is a mechanism whereby the interests of executives can be aligned with those of shareholders. Therefore, remuneration committees may consider making an important portion of incentive payments payable in the form of shares.

The findings also provide evidence that imprudent growth of banks did not attract the attention of the supervisory authorities. The current banking crisis in Cyprus proves that, lack of regulatory attention has allowed banks to make unwise moves and, as a result, both shareholders and depositors have lost money. These results suggest that, in the future, the Central Bank of Cyprus must use its powers to challenge bank strategies, restrain imprudent lending and enforce strong governance in banks.

One major responsibility of the audit committee is the supervision of the processes applied by the CFO regarding the choice of accounting estimates and accounting policies. The empirical evidence shows that banks' earnings have been managed with the use of discretionary accruals and this proves that the audit committees have not been effective. In the future, audit committees should scrutinize the CFOs' choices more closely, so that the financial statements provide information that is more reliable.

The existence of earnings management also proves that auditors have not been effective. This has occurred because of the non-audit rotation and the multiple non-audit

services offered to banks. As a result of the close relationship developed between the banks and their auditors and the high non-audit fees paid to them, auditor independence has been compromised. The audit function of a bank should provide an independent check and should have a clear reporting line to the relevant committee. Audit committees should ensure auditor effectiveness and when necessary propose auditor rotation to safeguard independence.

8.3 Implications for Shareholders and Depositors

The results of this empirical study could be of interest to shareholders and depositors, because these are the two groups of stakeholders that have suffered large financial losses due to the financial crisis in Cyprus.

During the period of the study, the four banks included in the sample were considered to be strong organisations and nobody expected that they would end up having such serious troubles. For this reason, more than 50% of the banks' shares were held by individuals, who trusted that their investment would be safe. And it is for this reason that shareholders were not active. In order to avoid similar mistakes in the future, shareholders should be more active. In addition, they should use their power and appoint more independent directors on bank boards. The results of this study provide evidence that, as the proportion of outsiders that sit on the board increases, insiders are more challenged and controlled and the quality of earnings is improved. The significance of independence is also supported by the fact that, when the CEO is also the chairman, earnings management is pronounced. CEO duality is therefore crucial, so

that board members remain unaffected by the influence of the CEO. Therefore, if it is difficult for individual shareholders to monitor the actions of executive directors and senior management, they could protect their investments by appointing non-executive and independent directors, with adequate knowledge, skills and experience,

The evidence also indicates the extreme importance of market discipline from depositors as well. Given that banks secure most of their funding from deposits, this provides lenders with a bargaining power to determine whether the transaction takes place i.e. whether the deposit will be made. More scrutiny on behalf of depositors could have forced banks to be more conservatism; people have now become more cautious, but it is too late. However, most of the depositors are not in a position to analyse banks' financial statements. Thus, when they made their deposit decisions, they did so because banks "advertised" their adequate capital base in order to signal their soundness. This also proves the responsibility that the Central Bank has to seriously scrutinize whether banks artificially boost their capital positions through earnings management, and inform depositors accordingly.

8.4 Limitations of the Study

One limitation of this empirical study may be the small sample size. However, according to the Central Bank, the total loans of the sample banks comprise 49% of total bank loans and the total deposits of the sample banks represent 54% of total bank deposits. Hence, the results may be generalised for the Cyprus banking sector, but they may not apply to other countries or other industries. But even though the results from

Cyprus may not apply to other countries (statistical generalization) it is possible to make an analytic generalisation. Generalisation is analytic where a previously developed theory can be used as a template against which to compare the results (Yin 2003, p.32). Consistent with this argument, this study has produced results that are similar to empirical evidence found in the literature.

Another limitation may arise from how accurately the regressions estimate the discretionary components of real securities gains and losses, loan loss provisions and accruals.

Finally, one more drawback may be that other corporate governance variables have not been used to detect the effect on earnings management such as audit committee characteristics, audit quality and block ownership (a proxy for more shareholder engagement).

8.5 Implications for Future Research

Future research can be extended by considering how the audit committee characteristics (i.e. independence, activity, expertise), the quality of the audit and block ownership can help mitigate the occurrence of earnings management in Cyprus banks. The regressions included in this study may also be estimated as of 2012 and onwards in order to see whether the financial crisis has had an effect on the behaviour of bank boards and regulators. In addition, since financial distress has been the result of excessive risk taking, it would be interesting to examine the relationship between

corporate governance variables and risk weighted assets, which are disclosed in the financial statements of banks.

Furthermore, this empirical study contributes to the general knowledge on banks' earnings management, which can prove to be useful to other academicians. Future research on banks and earnings management can be extended by considering both incentives and disincentives for earnings management. In addition, instead of using industry specific items to measure banks' earnings management (i.e. discretionary securities gains and losses and discretionary loan loss provisions), future research can include discretionary accruals, which capture earnings management in a more comprehensive manner. Finally, similar studies to this empirical research can be conducted for other countries that have experienced a financial crisis like Cyprus.

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